

ENVIRONMENTAL

TOPIC REPORT

TRENTON250
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Report prepared for
The City of Trenton - Division of Planning
as part of the Trenton250 Master Plan



TRENTON
DIVISION *of* PLANNING



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PLAN OVERVIEW

Trenton250 is Trenton’s long range Comprehensive Master Plan that will guide the City from now to the 250th Anniversary of its incorporation in 2042.

TOPIC REPORTS

The core recommendations for the Master Plan are organized in “Topic Reports”, commonly called Elements of the Master Plan. These reports take a particular perspective on trying to achieve the Vision and enact the Guiding Principles. They contain a background section that summaries the issues and opportunities relevant to that topic. The reports then enumerate a series of goals, initiatives, and actions that the City should implement to achieve the Vision.

TERMINOLOGY

The following terminology is helpful for understanding the Master Plan:

- Action: An individual policy, project, program, partnership, study, or advocacy position that the City and the community must execute to support an initiative to achieve a goal (e.g. Green Infrastructure Program, Assunpink Greenway Daylighting Project, or an Anti-Litter Campaign)
- Initiative: A collection of Actions (see above) to achieve a desired goal (e.g. Reduce Water Pollution and Enhance the Natural Environment).

PRIORITY INVESTMENT NEIGHBORHOODS

Trenton’s community-driven plan to create, “A Premier Economic and Cultural Center Built on Arts, Industry, and Education” is ambitious. Implementation will require sustained long-term commitment. Moreover, the vision must be reconciled with the reality that the City and its partners have limited resources: all initiatives cannot be executed in all locations immediately.

To address this, the City has identified six neighborhoods throughout the City where neighborhood efforts should be concentrated to have the greatest impact. These areas, also known as “Priority Investment Neighborhoods”, are likely to see the fastest revitalization while catalyzing improvements in surrounding areas. Although this framework is laid out in greater detail in the Housing Report (see **Develop Housing Toolkit & Implement Prioritized Investment Framework Initiative**), the intent is for the city to prioritize its neighborhood investment - whether housing, economic development, circulation, environment, or education - in these areas. (See Priority Investment Framework Map for more details which neighborhoods have been identified for priority investment)

LONG-TERM CATALYTIC PROJECT AREAS

In addition to these strategic neighborhood investments, the City must continue to work diligently on long-term catalytic projects such as creating a Trenton Transit Center Transit-Oriented Development, Reclaiming and Redeveloping the Waterfront, and encouraging more active use of the Sun Center. These efforts are not likely to see year-to-year improvements, and the payoff for investments in these projects may not be realized for a number of years. Nonetheless, this is the benefit of long-range planning: it allows the City to see the long-term benefits of consistent investment in projects, even if they are unlikely to yield short-term results.

DISTRICT PLANS

Those interested in understanding how the recommendations made in the Topic-Focused Reports should be implemented “on the ground” should consult the District Plans. The Plans do not provide any additional initiatives or actions but instead provide insight on where those recommendations might best be implemented.

BACKGROUND

Trenton's geographic setting is one of the City's greatest assets. The natural environment, including access to major waterways, made it attractive as an early settlement of the new world. More recently, these assets contributed to making Trenton one of the engines of the industrial revolution in America. As such, the natural environment has consistently contributed to the City's rich cultural history. Today, the natural environment is the source of some of the City's greatest strengths but also many of its major challenges. As a result of its historic and regional significance and as host to the State Capitol complex, the City has been able to leverage significant outside investment to both plan for and enact restoration policies and projects throughout the City.

Trenton has developed multiple plans and studies for various environmental and redevelopment issues over the past 15 plus years. These plans were well researched and structured but, in some instances, lacked stakeholder involvement and substantial public participation and therefore did not have universal acceptance. In addition, an abundance of tax-exempt properties within the City limited the available tax revenue to fund some of the broad recommendations made by these plans. The studies represented within these previously conducted plans, together with stakeholder and public input were key components to focus the recommendations and develop the environmental initiatives of the Trenton250 Master Plan.

Based on the reviewed data, public, and stakeholder input, this Report lays an adaptive framework that, if properly implemented, will allow the City and the myriad groups addressing environment to have the tools they need to meet the community's short- and long-term needs. The framework consists of four key areas in which the City must make improvements to effectively achieve the community-driven Vision and align with the Guiding Principles. These key areas are:

- Safe Environment;
- Natural Resources and Open Space;

- Climate and Natural Hazard Resiliency; and
- Conservation and Energy Efficiency.

This framework provides a structure for the City to capitalize on its wealth of natural and built amenities to re-establish a network of high-quality open spaces. Through the protection and enhancement of natural resources, the City will become more attractive to current and potential residents and businesses, forwarding its economic development and housing goals. Moreover, the framework will allow Trenton to protect its residents from environmental harm and severe weather events while reducing the negative impacts that urban living can have on the environment.

Each of these key areas are interrelated: improving the quality of the natural environment will make Trenton safer for residents and enhance the City's ability to be resilient and sustainable. Likewise, ensuring that the City evolves into a resilient City will protect natural resources and ensure residents live in a safe environment. These themes should not be seen as mutually exclusive. Instead, they are a conceptual model that will allow the City to better organize its efforts.

SAFE ENVIRONMENT

As enumerated in the Issues and Opportunities Report, a number of issues in the City of Trenton negatively affect the health of residents. The industrial history of Trenton has left behind blighted, underutilized, and contaminated or perceived-to-be-contaminated land throughout the city. To a large degree, these properties are located along water routes and rail corridors that served the city's transportation needs in the 1800's and 1900's. This aging industrial building stock and the associated residential development was constructed during a period of widespread lead-based paint and asbestos building material usage, both of which have been shown to have significant negative health effects on children and adults. The aging of these structures frequently leads to the release of these contaminants within the building and degrades indoor air quality.

Moreover, one of the major issues that were raised throughout the process (including Phase 1 - Visioning) was the pervasiveness of litter and trash in Trenton along with issues with solid waste management and illegal dumping. This not only projects an image of Trenton as being dirty and not worthy of respect, but also poses health risks to residents and contributes to contamination of rivers and natural environments.

As the City continues to confront these problems, many residents are also faced with a lack of open space and limited access to healthy food. The Trenton Community Health Needs Assessment Report noted that only 34 percent of Trenton children meet U.S. Department of Health and Human Services recommended exercise guidelines of 60 minutes of activity per day. With only three true supermarkets in the city, and an incredibly high number of limited food service restaurants (51 percent of outlets) and bodegas (29 percent), Trenton has been identified by the Trenton Health Team as a food desert that would have to triple its number of supermarkets to adequately serve its

residents (as of 2013). Combined, these conditions pose an acute risk to residents and must be addressed to create a safe environment for people to live and work.

The City and community partners have already undertaken numerous efforts in many areas of the City to address these issues. Community organizations and the City have developed lead paint and weatherization strategies with the potential to further reduce public exposure if properly funded. In addition, Open Space initiatives such as community gardens and a combination of city, county and state parks and trails allow some residents and visitors to the City to experience the health benefits of recreational spaces.

The City's Brownfield Program has been addressing contaminated site issues for over 20 years across the City. This program has brought millions of dollars into Trenton, and the Brownfield Program's success has been used to leverage funding for the redevelopment of key project sites. As such, redevelopment of brownfield sites has been a catalyst for bringing new jobs and tax revenues into the city. Specifically, the Assunpink Park Project (also known as the Assunpink Greenway Project) has demonstrated that the focused initiatives can serve both the open space and brownfield redevelopment needs of the City and should continue to be a focal point for identifying redevelopment opportunities.

The Combined Sewer System (CSS) currently operates in an area of approximately 500 acres in the Chambersburg area. The system was fitted with a twenty (20) million-gallon detention basin in 1980 to minimize overflows from this area. In general, untreated CSS are known to cause serious water pollution problems. When large volumes of water enter the system from major rain events, the system can overflow and spill directly into water bodies (rivers and streams). Trenton's detention basin helps alleviate potential water pollution by storing stormwater excess flow in order to protect from the mixture of sewer and stormwater overflow into our water bodies.

One Combines Sewer Outfall (CSO) is present within the City. It was equipped with a treatment system in the 1980's and later equipped with monitoring instruments. Although the outfall is in compliance with all regulatory requirements, a comprehensive approach that may include green infrastructure will provide increased assurance of good local surface water quality, and alleviate any risks to human and ecologic health. Although the City has historically taken steps to reduce discharges from its CSS substantially, the goal should be for "zero potential for discharges."

The City is in need of a comprehensive strategy to create a safe environment for its residents. Although much of the work is detailed in this Report, initiatives identified in other Topic Reports will contribute to this effort as well. For example, a distressed environment that perpetuates safety and crime issues, lack of safety in neighborhoods and public spaces, as well as poor pedestrian and bicycle safety all reduce residents' ability to access and enjoy the natural environment. Therefore, the City must take a comprehensive approach to environmental planning in conjunction with developing Trenton250's Public Safety Report.

NATURAL RESOURCES AND OPEN SPACE

Trenton sits at the northern extent of tidal influence, and the navigable reach, of the Delaware River. It is located at the confluence of the Assunpink Creek with the Delaware River and at the contact between the Piedmont and Coastal Plain physiographic provinces. The Delaware River, Assunpink Creek, and the D&R Canal are major environmental corridors that converge in Trenton. Two endangered species, the sturgeon and the bald eagle, as well as two species of special concern, the great blue heron and cobra clubtail, live in Trenton. In addition to these natural resources, Trenton is home to a number of built open space and cultural resources that are well utilized and loved by the community. These include, but are not limited to, Mill Hill Park, Villa Park, Cadwalader Park, and the Battle Monument.

The City has made progress in improving these assets, including recent efforts to daylight portions of the Assunpink Creek, developing a plan for the creation of the Assunpink Creek Park, and constructing the Route 29 Deck Park south of Arm & Hammer park. However, much work remains. Many of Trenton's streetscapes, trails, and open spaces are disconnected and underutilized. This deters residents from accessing the recreational, cultural, and historic resources that the City has to offer and prevents the City from capitalizing on its locational advantage, hampering economic development efforts. In addition, many open spaces have not been updated to meet the changing recreational demands of the City's population: as the City has seen a growing Hispanic population, few improvements have been made to open space to accommodate their needs. As such, the City is in need of a comprehensive effort to improve and protect its natural resources and open space and better connect residents to them.

CLIMATE AND NATURAL HAZARD RESILIENCY

Initial work defining, prioritizing and addressing these hazards was completed within Trenton's Natural Hazard Mitigation Plan (2008). The goal of that plan, carried over below, was to "Ensure that Trenton, its citizens, assets and operations, have the best possible protection from the future effects of natural hazards". The City identified flooding and high wind events as the highest risks to the City. One factor that the previous study did not evaluate is the impacts of sea level rise, which could affect the northerly reach of tidal impacts on the Delaware River, aggravating the effects of flooding in the City.

Trenton is located at the confluence of the Assunpink Creek and the Delaware River. The combination of these geographic features reduces the ability for stormwater to exit the drainage basin and leads to "stacking" of floodwaters within the City Limits. Moreover, nearly 20% of Trenton is within the 100 and/or 500-year floodplain. Approximately 50% of the Transportation/Communications and Utility infrastructure areas of the city are affected by floodplain issues. To a large degree, these areas

are located along the low-lying natural waterways of the City. This transportation, utility and communication infrastructure is essential to Trenton's ability to prevent widespread damage and recover from large-scale storm events.

The Hazard Mitigation Plan identifies initiatives including increased awareness, risk assessments, and cost-effective projects and actions as key components to Trenton's ability to recover from natural hazard events. It is anticipated that City-wide educational efforts and projects within the floodplain areas of the City can be prioritized to increase Climate Resiliency. Specifically, additional study of the impact of Sea-Level rise to compound impacts to the City during flooding and high wind events should be conducted.

The City must develop resiliency initiatives that protect the City and its residents during and after severe weather events.

CONSERVATION AND ENERGY EFFICIENCY

As identified within the City of Trenton Energy Master Plan (2010), the USEPA estimates that buildings account for approximately 40% of all carbon emissions in the United States. Further, 50% of the energy consumed by a typical building is attributable to the heating and cooling and another 20% consumed by lighting.

In 2015, Trenton achieved Sustainable Jersey Silver Certification, demonstrating leadership and how much the City can accomplish towards long-term sustainability. Trenton's position as the State Capitol presents an opportunity for sustainability leadership through the promotion of building energy efficiency.

In addition, the City of Trenton also published a Climate Action Plan (2010) calling for increased building efficiencies, energy use reductions, and air quality improvements. However, there is no designated entity within City Hall that is responsible for advancing the plan and ensuring that benchmarks are being met. The City should empower the Division of Planning to require new construction to meet efficiency standards. In addition, the City of Trenton should work with its power supplier to reduce energy usage, monitor air quality, and reduce pollution from the generating facility immediately south of the City.

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RELEVANT GOALS

1. **Safe Environment:** Trenton will have a safe environment where residents are free from the hazards of land, air, water, and building contamination.
2. **Natural Resources and Open Space:** Trenton will protect and promote access to its natural resources and open space, including natural ecosystems.
3. **Climate and Natural Hazard Resiliency:** Trenton's citizens, assets, and operations will have the best possible protection from the future effects of natural hazards.
4. **Conservation and Energy Efficiency:** Trenton will be a leader in conservation by reducing its community-wide carbon footprint and improve water conservation throughout the City.

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INITIATIVES

A. FOUNDATIONAL ACTIONS

The following initiatives will build capacity and allow the City to accomplish the goals for each of the key areas identified above. Their execution will ensure the City can properly implement the subsequent recommendations.

Property Management Database

The City has prepared multiple plans and conducted numerous studies on properties throughout the City. As a result, there is a large amount of property data buried in reports. This is especially true when it comes to environmental conditions: DVRPC recently completed the Natural Resource Inventory for Trenton. That study published up-to-date information about geology, soils, topography, watersheds, land use, known contaminated sites, and more. However, the City lacks a database that could:

- track and store this information;
- ensures that it is available to those inside and outside of the City who need it; and
- and cross reference it with other data from other plans and studies

As a result, identifying what is actually known about a given property has become a difficult challenge. This is magnified during times of administration changes and active property redevelopment.

Both the Economic Development and Housing Reports identified property information management as a serious issue and noted a need to improve the way that the city acquires, manages, and publishes property data. To unify these efforts, the City must develop a real-time comprehensive GIS properties database that will be utilized across City departments including Planning, Real Estate, Taxation, Inspections, Board of Education, Parks and Recreation, and Public Works. Among other uses, the database

should identify key properties so that they can be monitored, and if appropriate, acquired, to compile land for redevelopment. The Property Database Management System should be sure to include the following elements:

- internal data management system;
- a public data interface for data sharing and acquisition;
- an open data policy and guidelines for City departments; and
- training and hiring of staff with data management and data visualization skills.

The City should task a department with Database Management and allocate resources for new GIS data management personnel. For more information on how this action aligns with the recommendations from other reports, please see the Property Management Database Action.

Develop Environmental Commission

Environmental Commissions frequently work to preserve and protect environmentally sensitive properties within a community. The individuals who serve on these Commissions frequently possess the expertise necessary to

- identify and address environmental challenges;
- monitor, evaluate, and recommend environmental grants for key projects; and
- review development projects and advocate to increase environmental sustainability.

It is recommended that the City develop an Environmental Commission with a dual purpose of preserving and restoring the environmental health of the City. The Commission should have the knowledge base to assimilate the volumes of environmental data from the relevant studies and plans to improve the environmental health of the community. It is anticipated that this Commission will provide environmental recommendations as needed. For more information on the implementation of this action, please see the Develop Environmental Commission Action.

B. SAFE ENVIRONMENT INITIATIVES

1 | CREATE A SAFE & CLEAN CITY ENVIRONMENT

The industrial history of Trenton has left behind blighted, underutilized, contaminated and perceived-to-be-contaminated land throughout the city. To a large degree, these properties are located along water routes that served the city's transportation needs in the 1800's and 1900's and currently form the industrial core and a greenway opportunity for the City. The Brownfield Action Plan (2014) should guide brownfield redevelopment efforts to address targeted properties throughout the City. For example,

the Assunpink Creek Park Project has demonstrated that focused initiatives can serve both the open space and brownfield redevelopment needs of the City. As such, effective implementation of that can plan can substantially advance the City's efforts to create a clean and safe environment.

Although the City's water supply is routinely monitored and meets acceptable standards, the City is home to a number of lead contaminated homes and Trenton must reduce the risk of exposure from these properties. To protect residents, especially children, from the dangers in their own homes, the City should implement the Lead Paint Home Stabilization Initiative and support household lead evaluations and abatement activities for historic properties.

Finally, a safe clean city is about more than just protection from historic contamination. Anti-litter and Anti-dumping campaigns will reduce the amount of trash and waste in the City, protecting both residents and the environment. Moreover, blighted properties are attractive nuisances and pose a real risk to residents. Efforts to transform these properties from blighted spaces to opens spaces will have a positive impact on health and welfare of the community while also addressing vacancy and abandonment.

This initiative will help the City meet the following goals:

- ▶ **Climate and Natural Hazard Resiliency¹**
- ▶ **Conservation and Energy Efficiency²**
- ▶ **Vacancy and Abandonment³**

The City, should implement the following actions to execute this initiative:

- ▶ **Anti-Litter & Anti-Dumping Campaign**
- ▶ **Assunpink Creek Park Project**
- ▶ **Brownfield Action Plan Implementation**
- ▶ **Environmental Services Department**
- ▶ **Floodplain Restoration Program**
- ▶ **Lead Paint Home Stabilization Initiative**
- ▶ **Lead Hazard Control Assistance Fund Advocacy**
- ▶ **Vacant Lot Stabilization Program**
- ▶ **Trenton250 Stormwater Management Report**

1. *Trenton's citizens, assets, and operations will have the best possible protection from the future effects of natural hazards.*
2. *Trenton will be a leader in conservation by reducing its community wide carbon footprint and improve water conservation throughout the City.*
3. *All of Trenton's neighborhoods will have no abandoned housing units, with vacancy rates equal to those of Mercer County*

C. NATURAL RESOURCES AND OPEN SPACE INITIATIVES

With respect to the natural resources and open space, the goal is to both restore and enhance natural ecosystems and promote access to those systems so that Trenton's residents and visitors can enjoy them. To achieve these goals, the City must reduce water pollution and enhance the natural environments through targeted projects like the Assunpink Creek Park Project and the Assunpink Daylighting project. These efforts will serve both goals: improving the natural environment and creating destinations

4. *Trenton's citizens, assets, and operations will have the best possible protection from the future effects of natural hazards.*

5. *Trenton will be a leader in conservation by reducing its community wide carbon footprint and improve water conservation throughout the City.*

6. *All of Trenton's neighborhoods will have no abandoned housing units, with vacancy rates equal to those of Mercer County*

that residents can enjoy. Strategic greening of the city complements this effort. By undertaking efforts such as adding open space areas and conducting tree-planting programs, the City can make a more enjoyable environment for residents and help mitigate harm to natural environments caused by urbanization.

For these efforts to be successful, however, residents must have access to these natural resources and open space. Increased use will not only increase stewardship, but will also make Trenton a more enjoyable place to live and visit. This will support efforts to promote economic development and housing that seek to make Trenton a choice destination to live and work. As a result, the City must coordinate the initiatives in this section with the **Comprehensive Capital City Regional Trail Network Initiative** identified in the Circulation Report.

A map of the proposed and existing open spaces in Trenton is provided in Figure 1.

1 | REDUCE WATER POLLUTION AND ENHANCE THE NATURAL ENVIRONMENTS

Within Trenton, important habitat for rare species is predominantly located within and along the banks of the Delaware River, the D & R Canal, and Assunpink Creek. Efforts to enhance and protect riparian areas will help protect endangered species while making improvements to water quality. City-wide efforts such as a Green Infrastructure Program and a Riparian Area Protection and Enhancement Program have allowed other cities filter water before it meets major waterways. Anti-litter campaigns and anti-dumping will prevent trash and contamination from entering into waterbodies in the first place, easing the burden on the natural system. Since this trash ultimately ends up in the stormwater system, stopping it at the source helps address polluted stormwater and groundwater.

Targeted projects that seek to enhance specific assets, like the Assunpink Creek, can also make major impacts on water quality while providing residents with key amenities. Nonetheless, many of the problems with Trenton's water quality is the result of drainage waters passing through Trenton from upstream areas. As such, the City must advocate for comprehensive watershed management strategies that enhance water quality throughout the region.

This initiative will help the City meet the following goals:

- ▶ **Climate and Natural Hazard Resiliency⁴**
- ▶ **Conservation and Energy Efficiency⁵**
- ▶ **Vacancy and Abandonment⁶**

The City should implement the following actions to execute this initiative:

- ▶ **Anti-Litter & Anti-Dumping Campaign**
- ▶ **Assunpink Creek Park Project**

- ▶ **Assunpink Daylighting Project**
- ▶ **Blight to Open Space Program**
- ▶ **Comprehensive Watershed Management Advocacy**
- ▶ **Green Infrastructure Program**
- ▶ **Recycling Education Campaign**
- ▶ **Riparian Area Protection and Enhancement Program**
- ▶ **Trenton250 Stormwater Management Report**
- ▶ **Vacant Lot Stabilization Program**
- ▶ **Vacant Lot to Open Space Program**
- ▶ **Waterfront Reclamation and Redevelopment Project**

2 | GREENING OF THE CITY

Strategic greening of the city will serve to remove a percentage of stormwater from Trenton’s sewer system and allow riparian buffers to function naturally to mitigate storm flows from upstream areas. In addition, greening the city, “will improve air quality, reduce urban heat island effects and providing open areas for city residents and visitors take advantage of physical exercise opportunities. The interconnection of these green spaces will restore the natural ecosystem functions sustaining clean air and water.” (APA – City Parks Forum Briefing Papers 05 “How cities use parks for Green Infrastructure”, 2001).

Greening the City can also function as a key component to improving resident health, removing barriers to redevelopment through brownfield remediation, increasing property values, and providing venues for social interaction. New and improved parks and greenways will serve to better connect multiple wards within the City, providing opportunities for increased understanding and, when properly monitored, ultimately leading to long-range crime reduction. Moreover, greening of the City will have a positive impact on property values in neighborhoods: they make streets more attractive and enjoyable to walk down, which has a positive impact on property values. As such, greening the City can be an effective way of supporting the City’s economic development and housing goals.

Strategic greening of the City will serve to remove a percentage of stormwater from Trenton’s combined sewer system. The City should follow Philadelphia’s example and implement a comprehensive green infrastructure program that captures stormwater before it enters the CSO. The Trenton 250 Stormwater Management Report should be a framework for development green infrastructure strategies and implementation while the goal of the Combined Sewer Overflow Management Program should be to eliminate the potential for discharges. Combined, these efforts will help the City To reduce discharges to the Combined Sewer Overflow (CSO) system.

Finally, two major projects –the Assunpink Creek Greenway Park and the Waterfront

FIGURE 1. PROPOSED BIKE NETWORK

-  Existing Open Space
-  Proposed Open Space
-  Existing multi-purpose Trail
-  Proposed multi-purpose Trail



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7. Trenton will protect and promote access to its natural resources and open space, including natural ecosystems.
8. Trenton's citizens, assets, and operations will have the best possible protection from the future effects of natural hazards.
9. Trenton will be a leader in conservation by reducing its community wide carbon footprint and improve water conservation throughout the City.
10. Trenton will have a strong, diverse, and sustainable economy with a broad range of employment opportunities for residents
11. Trenton will provide a variety of quality for-sale and rental options for households of all types and residents at all income levels

Reclamation and Redevelopment Project– have the opportunity to add major open space areas to meet the needs of current and future generations. The parks provide an opportunity to expand the amount of passive and active open space available to residents and expand the types of open space offered in response to Trenton’s changing demographics.

This initiative will help the City meet the following goals:

- ▶ **Natural Resources and Open Space⁷**
- ▶ **Climate and Natural Hazard Resiliency⁸**
- ▶ **Conservation and Energy Efficiency⁹**
- ▶ **Overall Economic Development¹⁰**
- ▶ **Overall Housing¹¹**

The City should implement the following actions to execute this initiative:

- ▶ **Assunpink Daylighting Project**
- ▶ **Assunpink Creek Park Project**
- ▶ **Brownfield Action Plan Implementation**
- ▶ **Community Garden and Urban Agriculture Support Program**
- ▶ **Green Infrastructure Program**
- ▶ **Trenton250 Open Space and Recreation Report**
- ▶ **Trenton250 Storm Water Management Report**
- ▶ **Street Tree Planting and Maintenance Program**
- ▶ **Vacant Lot Stabilization Program**
- ▶ **Vacant Lot to Open Space Program**
- ▶ **Waterfront Reclamation and Redevelopment Project**

D. CLIMATE AND NATURAL HAZARD RESILIENCY

1 | BUILD CLIMATE AND NATURAL HAZARD RESILIENCY

This initiative involves working with public and private utility and transportation infrastructure providers to relocate and/or elevate essential infrastructure outside the floodplain areas. As the State Capital and County Seat, the City has a unique opportunity to be the showcase community for Climate and Natural Hazard Resiliency. To accomplish this task, the City should hire a Chief Resiliency Officer to identify partnerships with private and governmental entities to make the City more resilient from future storm and climate changes. Through cooperation, the riparian areas can be restored, which would help mitigate the flooding effects experienced along the Assunpink Creek and the Delaware River north of the Delaware River Falls (Duck Island). Projects such as the Waterfront Reclamation and Redevelopment Project demonstrate how coordinated efforts with State and Regional agencies can result in

plans to redesign infrastructure that will improve drainage and reduce flooding. This project can be an example of how such efforts can be coordinated to further other City, County and State objectives (i.e. improve City resident access to the riverfront and encourage economic development). Partnerships with PSE&G, Public Works, NJDOT, AMTRAK, and NJ Transit will be key to successful completion of this initiative.

In addition to working on building utility and infrastructure resiliency, the City must also focus on the efforts to protect residential areas from future flooding events. Residential areas along waterways that fall within 1% and .05% flood zones are of particular concern. The cost of persistent flooding to those areas is likely to be significant as will be the cost of insuring in those areas. The City will need to develop community-driven plans based on sound economic principles to protect those homes from flooding.

Finally, the City should coordinate their efforts on the **Protect and Promote Natural Resources and Open Space Initiative** with efforts to protect the built environment. Projects such as the Assunpink Creek Park demonstrate that efforts to improve the natural environment can and will have positive economic and social impacts as well.

This initiative will help the City meet the following goals:

- ▶ **Safe Environment**¹²
- ▶ **Natural Resources and Open Space**¹³

The City should implement the following actions to execute this initiative:

- ▶ **Assunpink Creek Park Project**
- ▶ **Green Infrastructure Program**
- ▶ **Island Neighborhood Flood Plan**
- ▶ **Trenton250 Utilities Report**
- ▶ **Trenton250 Storm Water Management Report**
- ▶ **Utility Resiliency Partnership**
- ▶ **Waterfront Reclamation and Redevelopment Project**

E. CONSERVATION AND ENERGY EFFICIENCY INITIATIVES

1 | PROMOTE CONSERVATION AND ENERGY EFFICIENCY

The City's Climate Action Plan identified key priority actions for community energy and water efficiency goals. Among other initiatives, the plan addresses options for promoting conservation and energy efficiencies through municipal operations, community-wide energy efficiency, community-wide water conservation, community landscaping practices, traffic and transportation policies, energy conservation and renewables, community initiatives, and community waste reduction, among others. The plan includes Costs-Impacts Analysis as well as sections titled, "How to Do It."

¹². Trenton will have a safe environment where residents are free from the hazards of land, air, water, and building contamination

¹³. Trenton will protect and promote access to its natural resources and open space, including natural ecosystems.

14. *Trenton's citizens, assets, and operations will have the best possible protection from the future effects of natural hazards.*

15. *Trenton will be a leader in conservation by reducing its community wide carbon footprint and improve water conservation throughout the City.*

These actions leverage community education and state financial resources and provide strategies for implementation across the City. It is recommended that the City hire a Chief Resiliency Officer (CRO) that works directly with the Mayor as a top-level advisor to develop a resiliency strategy and sustainable practices that help the City withstand shocks and stresses and to conserve energy and water throughout the City. It is anticipated that the CRO will advocate to and for businesses and agencies located within the City and the local community to maximize innovative sustainable management practices and minimize the impact of unforeseen events.

Creating the Trenton250 Stormwater Management Report will be effective in helping to address water contamination. Gold Certification from Sustainable Jersey would also be a major accomplishment, demonstrating the City's continued commitment to conservation and energy efficiency.

This initiative will help the City meet the following goals:

- ▶ **Climate and Natural Hazard Resiliency¹⁴**
- ▶ **Conservation and Energy Efficiency¹⁵**

The City should implement the following actions to execute this initiative:

- ▶ **Chief Resilience Officer (CRO)**
- ▶ **Sustainable Jersey Gold Certification**
- ▶ **Resiliency and Sustainability Strategy Report**
- ▶ **Trenton250 Storm Water Management Report**

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