



## Green Building and Sustainability Element

Township of Brick  
Ocean County, New Jersey

# Green Building and Environmental Sustainability Element

Adopted: March 30, 2016

**Prepared for:**



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Ocean County, New Jersey

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## Executive Summary

This plan is intended to guide land use decisions within the Township of Brick, provide the basis for ordinances addressing sustainability and land use issues, and meet the needs of future generations while preserving the quality of life that attracts residents to the Township today. This Green Building and Sustainability Plan was funded using Phase II- Post Sandy Planning Assistance Grant Funding from the New Jersey Department of Community Affairs and will be incorporated as an element of the Township's Master Plan.

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## Introduction

### Purpose

This Green Building and Environmental Sustainability Element of the Master Plan has been prepared in accordance with the Municipal Land Use Law, N.J.S.A. 40:55D-28b(16) and was adopted on XXXXX, 2016 by the Township of Brick Planning Board as an element of the Township's Master Plan. The Municipal Land Use Law was amended in 2008 to include the Green Building and Environmental Sustainability Element in the list of permitted Master Plan Elements.

This element is intended to guide land use decisions and provide the basis for ordinances addressing sustainability and land use issues. The American Planning Association defines sustainability as "the capability to equitably meet the vital human needs of the present without compromising the ability of future generations to meet their own needs by preserving and protecting the area's ecosystems and natural resources." By incorporating this element into the Township Master's Plan, Brick will be well positioned to meet the needs of future generations, while preserving the quality of life that attracts residents to the Township today.

The Township of Brick Master Plan and all included elements, including this Green Building and Environmental Sustainability Element, is an important document for defining and achieving a desired future for the Township of Brick. The purpose of the Green Building and Environmental Sustainability Plan Element is to "encourage, and promote the efficient use of natural resources and the installation and usage of renewable energy systems; consider the impacts of buildings on the local, regional and global environment; allow ecosystems to function naturally; conserve and reuse water; treat storm water on-site; and optimize climatic conditions through site orientation and design." The Township of Brick is a regional leader in sustainability and green initiatives, having already implemented a number of renewable energy projects. This plan will recognize the green initiatives Brick has already undertaken and set forth a roadmap for future sustainability initiatives and endeavors.

### Township Profile

The Township of Brick is located in northeastern Ocean County, New Jersey. The Township is bordered to the north by Point Pleasant Borough, Wall Township, Mantoloking Borough, and Howell Township. Lakewood Township is located to the west of the Borough and Toms River Township is located to the south. The Barnegat Bay forms much of the eastern boundary of the Township. A portion of the Township

is located east of the Barnegat Bay on the barrier island and is bordered to the north by Mantoloking Borough, to the south by Toms River Township, and to the east by the Atlantic Ocean.

The Township of Brick is a year-round suburban community with single- family detached residences being the most common land use. However, the Township's location along the Barnegat Bay and Atlantic Ocean does encourage seasonal residences as well. The Township has 53.2 miles of privately owned waterfront property along the bay, ocean, and river fronts, the most of any municipality in New Jersey. The Township of Brick is accessed by Routes 70 and 88, as well as the Garden State Parkway. New Jersey Transit bus service is available to Philadelphia and Trenton. While there are no train stations located within the Township, the Bay Head station at the end of the North Jersey Coast Line to New York City is located close by.

## Vision

This Green Building and Environmental Sustainability Element is intended to guide local policies to increase sustainability within the Township of Brick by encouraging efforts to increase coastal resiliency, promote energy efficiency and the use of renewable energy, and create a sustainable, healthy community with a high quality of life for residents and visitors.

## Goals and Objectives

The Township of Brick has identified the following goals as they relate to the priority sustainability issues of the Township:

1. Encourage the acquisition, restoration, and preservation of open space for public access and use.
2. Protect the water quality of the Barnegat Bay.
3. Reduce the quantity of waste generated within the Township of Brick and increase recycling.
4. Promote mixed use developments and alternative modes of transportation including bike paths, pedestrian enhancements, and improved public transportation.
5. Encourage all new building and redevelopment to incorporate green building standards and renewable forms of energy.
6. Encourage local businesses to adopt green business practices.
7. Promote sustainability in municipal services.
8. Promote local resiliency.
9. Encourage local, sustainable food production and education.

Utilizing the Master Plan and other Township planning documents as guidance, these goals can be further elaborated on through the following objectives.

### 2007 Master Plan

There are a number of objectives in the 2007 Township of Brick Master Plan which will help to guide the development of the Green Building and Environmental Sustainability Element. They are as follows:

#### Environment

- To implement the Open Space & Recreation Plan.
- To encourage the continued Municipal acquisition and recreational development of vacant waterfront property for public access & use.
- To Implement the Conservation & Open Space Plan Element.
- To implement the Conservation Plan by protecting the environmentally sensitive lands as delineated on the Master Plan.
- To provide for additional open space and recreational areas and to provide incentives for dedication to the Township of lands for those purposes.

- To Implement the Recycling Plan Element and encourage the continued expansion of the Township's recycling program.
- To implement the Municipal Stormwater Management Plan Element.
- To improve surface & groundwater quality through the completion of the Sewerage Infrastructure Improvement Act requirements by adhering to the NJDEP Water Quality Standards and Municipal Stormwater Regulations Program.
- To discourage direct discharge of storm water into bodies of water, to discourage the off-site flow of stormwater and to require on-site retention in underground facilities whenever feasible.
- To implement the Community Forestry Management Plan Element.
- To protect environmentally critical areas and preserve woodlands and open space and to encourage the beautification of the Township through landscaped areas.
- To encourage energy conservation policies through techniques as applied in Site Plan and Subdivision Review and other governmental action.
- To improve the quantity and quality of landscaping and buffer plantings.
- To protect existing threatened and endangered species habitat from new development.
- To protect riparian buffers from encroachment from new development.

### Transportation

- To establish a unified circulation system.
- To continue seeking funds from Federal, State & County sources for Township road improvement projects.
- To provide opportunities for alternate means of local & regional travel including but not limited to pedestrian walkways, bicycle paths, bus routes, air and rail transit and the utilization of the inland waterways.
- To encourage mixed use developments to reduce dependence on vehicles for modes of travel.

### Development

- To encourage a balanced and compatible arrangement of residential, commercial and other appropriate land uses.
- To encourage mixed use developments in the Brick Town Center to direct new development into areas of existing infrastructure.
- To encourage streetscape designs that are aesthetically pleasing that encourage pedestrian use as well as providing for an improved visual environment.

- To continue providing incentives through zoning and code enforcement for re-planning and rehabilitating of all major commercial areas in general, and the neighborhood business districts and the Brick Town Center in particular.

## Inventory of Sustainability Efforts

The Township of Brick is committed to becoming a more sustainable community and has already undertaken a number of efforts through its Environmental Commission, Green Team (and former Mayor's Advisory Committee of Renewable Energy) now called "Sustainable Brick", Shade Tree Commission, Mayor's 100 Day Plan, and the Community Rating System and Sustainable Jersey Certification Programs.

### Sustainable Jersey Certification

Sustainable Jersey is a certification program for municipalities in New Jersey that want to go green, save money, and take steps to sustain their quality of life over the long term. The program began in 2009 and identifies actions municipalities can implement, provides guidance and tools for each action, and provides access to grants and funding opportunities (Sustainable Jersey). The Township of Brick has undertaken a number of initiatives through the Sustainable Jersey Certification Program, receiving a Bronze Level Certification in October 2013. Bronze certification requires the establishment of a mandatory green team, implementation of two (2) of twelve (12) Sustainable Jersey priority actions, completion of actions in six (6) of nine (9) categories, and a total of at least 150 points towards the certification program. A number of the initiatives undertaken by the Township for certification are relevant to this plan and are important to encourage and continue in the Township of Brick.

The Township of Brick has undertaken a number of partnership, education, and outreach activities for Sustainable Jersey certification. These partnerships and outreach events will be useful when encouraging residents to undertake a number of the initiatives outlined in this plan. The Township has been working in partnership with the Visitation Relief Center to provide a number of education and outreach programs to Township residents. Some of these include: the Garden to Table Nutrition Education program, Grow Your Own Vegetables workshop, Make your own Rain Barrel workshop, Eating Better on a Budget workshop, and Accessing Local-Grown Food to Stretch your Food Budget. Additionally, the Township has been holding an annual Green Fair since 2010



and inviting local vendors and organizations to share information on ongoing programs and initiatives.

### Getting to Resilience

Beginning in October of 2012, the Township of Brick participated in a vulnerability analysis project conducted by the Jacques Cousteau National Estuarine Research Reserve to identify and address future flood risk. This report will begin to address climate mitigation and adaptation.

The Township has also been awarded a \$470,000 grant from the New Jersey Department of Community Affairs Post Sandy Planning Grant Community Development Block Grant Disaster Relief Program. This document along with ten other planning studies and reports are being drafted to address a variety of floodplain management and planning initiatives. These planning studies include:

- Floodplain Management Plan
- Flood Warning and Response Plan
- Repetitive Loss Area Analysis
- Hazard Mitigation Plan
- Capital Improvement Plan
- Master Plan Update
- Neighborhood Plans
  - Bay Harbor/ Cherry Quay
  - Shore Acres
  - Princeton/ Midstreams
  - Barrier Island

### Energy Initiatives

In 2007 a Local Government Energy Audit was conducted for the Township of Brick Municipal Building. The draft report recommended the following projects: installation of occupancy sensors, pipe insulation, and a direct digital control system; window replacement using double-pane low-e coated windows with thermal breaks with ½" spacing between glazing; and VFD on cooling tower fan and condenser water pump. Between 2010- 2014 the following energy savings projects were installed at the Municipal Building: new motors and variable speed drives for 2 AHU's, Cooling Tower Fans, and Tower Pumps and Heat Pump Loop pumps; new controls (time clocking/ set

back etc. on direct digital control (DDC) system) for 20 perimeter heat pumps and 100+ induction variable air volume (VAV) boxes; and replacement windows. These projects were funded through the American Recovery and Reinvestment Act grants through the U.S. Department of Energy. Additionally, solar panels were installed on the roof and in the parking lot of the Brick Municipal Building.

The Township of Brick has undertaken a number of innovation and demonstration projects to encourage residents and local organizations to make choices that increase sustainability in their community. The Township of Brick Municipal Utilities Authority installed a rain garden at the reservoir in May 2010. As stated above, solar panels were installed on the municipal building and in its parking lot. In 2011, a wind



**Figure 1. Solar Panels in Parking Lot of Municipal Building**

turbine was installed at the Brick Sports Complex on Drum Point Road. The turbine is monitored by elementary school children for its energy production. In addition, The Visitation Relief Center also began a community garden in 2013 funded by a start-up grant from Sustainable Jersey to provide fresh produce to their food bank.

Perhaps the most significant energy smart project was the 2012 redevelopment of the Township of Brick Landfill, which is listed on the U.S. EPA Superfund list. The Township closed and capped this 42 acre facility, located on Sally Ike Road. The landfill was then redeveloped as a 7 megawatt solar field that produces energy to power municipal and utility authority buildings through a power purchase agreement and private/public partnership. The site has been the subject of two national awards including the U.S. Conference of Mayor's City Livability Honorable Mention Award and the U.S. Environmental Protection Agency Region 2 ReUse award for redevelopment excellence.



Figure 2. Solar Field at Landfill

The output and functionality of the municipal building solar system, the Brick Township Landfill solar system, and the Drum Point Sports Complex wind turbine can be monitored by the public through the Township of Brick's Sustainable Brick Committee website at: <http://www.bricktownship.net/boardscommissions/sustainable-brick-township>.

### Natural Resource Preservation

Brick already has the regulatory framework in place to preserve natural resources within the Township. There is an environmental commission consisting of seven (7) regular members and two (2) alternates which meets regularly. There is also a Sustainability Committee that meets monthly and is responsible for the Township's Annual Green Fair. The Township has a Natural Resource Inventory, which is updated regularly and included as part of the Open Space and Conservation Plan. The Township Open Space Plan has been adopted as an element of the Master Plan. Additionally, Brick has a number of ordinances to protect its natural resources;

including an environmental assessment ordinance, riparian buffer ordinance, dune preservation ordinance, threatened and endangered species protection ordinance, and a tree protection ordinance. There is also an ordinance in place to enforce recycling within the Township.

### Mayor's 100 Day Plan

The 2014 Brick Transition Team set forth a number of recommendations for Mayor Ducey to accomplish during his first 100 days in office. Many of these measures will help to promote sustainability in the Township of Brick and further the goals of this Green Plan. They are as follows:

- Conduct Township-wide energy audit to reduce energy dependence and cut utility costs.
- Create an aggressive public education program on the benefits of recycling, including the tremendous cost savings to the taxpayers for avoiding tipping fees for garbage disposal. *Completed.*
- Increase recycling in Town Hall and other Township owned facilities. *Completed.*
- Continue to replace traditional lighting fixtures with more energy efficient lighting fixtures (street lighting, traffic signals, and public buildings and facilities).
- Work to obtain certification with Sustainable New Jersey, which will qualify Brick to receive grant funding. *Completed.*
- Assess and improve the safety of the various pedestrian walkways and crosswalks in Brick.
- Seek Safe Routes to School Grants for eligible neighborhoods with schools on busy thoroughfares. *Ongoing.*
- Come up with solutions to address abandoned houses in Brick. *Completed.*
- Make effort to join the Community Rating System- NFIP, which will give Brick residents a discount on their flood insurance. *Ongoing.*

## Potential Regulations and Sustainability Measures

This Green Building and Environmental Sustainability Element is intended to guide local policies to increase sustainability within the Township of Brick by encouraging efforts to increase coastal resiliency, promote energy efficiency and the use of renewable energy, and create a sustainable, healthy community with a high quality of life for residents and visitors. This will be achieved through:

- Climate Change/ Green House Gas Emissions
- Energy Conservation and Renewable Energy Production
- Land Use and Increased Mobility
- Green Building Design
- Sustainable Water Resources
- Waste Reduction and Recycling
- Local, Sustainable Food Systems
- Coastal Resiliency

## Climate Change and Greenhouse Gas Emissions

This section is related to and should be read in conjunction with the Township of Brick Land Use Element and Utilities Plan Element.

Over the past century, the earth's average temperature has risen, largely due to human activities which release large amounts of carbon dioxide and other greenhouse gases into the atmosphere. The majority of greenhouse gases are produced by burning fossil fuels to produce energy for the things we use every day, such as heating and powering our homes and businesses, driving cars, and creating everyday products.

Global climate change will lead to an increased occurrence in severe storm events and rising sea levels. These events will have devastating impacts on coastal communities such as the Township of Brick, as previewed by Hurricane Sandy. In the Global Warming Response Act of 2007, the State of New Jersey identified climate change as a public health risk and a threat to the public safety and welfare; and set targets for greenhouse gas emission reductions.



**Figure 3. Impacts from Hurricane Sandy looking towards Brick on Mantoloking Road.** Source: Doug Mills/ AP

To reduce the impacts of climate change, the Township of Brick should employ methods to reduce greenhouse gas emissions including promoting energy conservation programs and conducting energy audits to reduce energy dependence and cut utility costs. The Township of Brick could form a committee of concerned citizens and Township officials, like Point Pleasant Borough's Climate Action Committee to determine what additional measures would be feasible for the Township. The Township of Brick School District participates in the Sustainable Jersey School program. They should be encouraged to complete actions for certification levels.

Goal: Reduce the impacts of climate change by employing methods to reduce greenhouse gas emissions	
Objectives	Strategies
<i>Reduce the use of fossil fuels for energy production.</i>	Conduct a Township-wide energy audit to reduce energy dependence and cut utility costs.
	Encourage Sustainable Schools participation
	All school and municipal building renovations and reconstruction should be completed with energy efficient retro-fits.
	Local businesses should be encouraged to undertake energy efficient retro-fits through an education campaign.
	Reduce the need for sport field lighting.

## Energy Conservation and Renewable Energy Production

This section is related to and should be read in conjunction with the Township of Brick Land Use Element, Utilities Plan, and Circulation and Transportation Element.

The Township of Brick has already implemented a number of energy conservation and renewable energy production practices, including a wind turbine at the Drum Point Sports Complex, the redevelopment of the landfill into a 7 megawatt solar farm and the solar panels located at the municipal building. Using renewable energy in homes, businesses, and in public facilities can reduce the use of fossil fuels that contribute to global warming and impair air quality. The New Jersey Municipal Land Use Law designates renewable energy facilities as inherently beneficially uses. The Township of Brick is well positioned to use their experience in the field to further increase renewable energy production within the Township.



**Figure 4. Drum Point Wind Turbine**

The Township should continue to monitor the efficiency of the solar farm, maintain the solar panels located on the Municipal Building and the wind turbine at the Drum Point Sports Complex. These sites should be used to encourage property owners to produce solar energy on their own properties where feasible. The land use ordinance shall be updated if necessary to allow for the local production of renewable energy in all zone districts as an accessory use. New developments and redevelopment should be encouraged to utilize renewable energy sources and may be given building incentives if certain benchmarks in renewable use are reached. New developments should also be required to utilize passive solar energy strategies where feasible. Energy conservation techniques can be encouraged through Site Plan Subdivision Review and other governmental action.

The Township should replace all traditional lighting fixtures with more energy efficient or solar powered lighting fixtures including street lighting and traffic signals, as well as inside public buildings and facilities. As municipal facilities and infrastructure require

upgrades, energy conservation measures should be required to be incorporated into any renovations.

Neighboring Howell Township offers a program through their Green Team in which commercial property and business owners can receive a free energy assessment of their building by a local licensed contractor. Once the assessment is completed, the property owner has the option to choose any of the upgrade energy/ reduction suggestions made in the assessment and the program will pay up to 70% of the upgrade cost. Howell Township is partnering with Sustainable Jersey and the New Jersey Board of Public Utilities to offer this incentive program. The Township of Brick could develop a similar program with the State.

Goal: Reduce greenhouse gas emissions from energy generation in the Township of Brick	
Objectives	Strategies
<i>Encourage the use of renewable energy sources</i>	Promote local production of renewable energy by revising the land use ordinance to make it easy for property owners in all zone districts to produce renewable energy on their property as an accessory use.
	Maintain the solar panels installed on Town Hall and monitor the maintenance of the solar panels at the solar farm.
	Use the existing wind turbine to educate residents and permit wind energy facilities in appropriate zone districts.
	Encourage residents to utilize rooftop solar panels where feasible.
	Encourage property owners to install solar panels over existing impervious coverage or as part of future redevelopment.

	Encourage new development to utilize renewable energy sources.
	Work to attract businesses that specialize in renewable energy.
<i>Conserve energy through building and site design</i>	Replace traditional lighting fixtures with more energy efficient and/or solar powered lighting fixtures (street lighting, traffic signals, public buildings and facilities)
	Promote green building design techniques
	Encourage energy conservation policies through techniques as applied in Site Plan Subdivision Review and other Governmental action.
	Require new development to utilize passive solar strategies
	Require that municipal facilities and infrastructure incorporate energy conservation measures as upgrades and renovations become necessary.

## Sustainable Land Use Patterns and Increased Mobility

This section is related and should be read in conjunction with the Land Use Element, the Stormwater Management Plan, the Circulation and Transportation Element, the Recreation Plan Element, and the Conservation and Open Space Element of the Master Plan.

Land use patterns play a critical role in climate change because they directly affect greenhouse gas emissions due to the energy needed to heat and power a building, vehicle miles travelled between places, and the ability of natural areas to act as buffers and reservoirs. Encouraging sustainable land use patterns will reduce overall energy used including the number of vehicle miles travelled and increase the amount of natural lands able to be set aside for preservation. Sustainable land use patterns encourage mixed use developments which allow for the use of walking, bicycling, and mass transit. Sustainable land use promotes these and other alternative modes of transportation, as well as local food, industries, and businesses and supports healthy, sustainable economies.

The Township Recreation Plan Element calls out the existing bicycle trails in the Township of Brick. These trails are located in the Airport Tract, the Sawmill Pond Tract, and through the Reedy Creek preservation area. To promote sustainable land use patterns throughout Township of Brick, a multi-modal circulation plan and a bike/ped plan should be adopted as elements of the master plan. These plans will help to establish a unified circulation system and will encourage transportation alternatives to reduce overall vehicle miles travelled and trips made. Streetscape design standards should be incorporated into those plans to encourage pedestrian use and improve the safety of pedestrian walkways and crosswalks throughout the Township. Additionally, Brick should encourage the implementation of complete streets throughout the Township. Complete streets are streets designed and operated to enable safe access for all users including pedestrians, bicyclists, motorists, and transit riders; and may include sidewalks, bike lanes, median islands, and/or bus stops (National Complete Streets Coalition).

The Township has successfully implemented two (2) NJ Department of Transportation Safe Routes to School projects, Safe Streets projects and has a pedestrian safety fund established that is funded by escrow deposits from waivers of sidewalks and curbing where practical during site plan and subdivision reviews. Currently, the Township has an active \$450,000 Safe Routes to School grant funded project ready for construction to build sidewalks and curbs along Lanes Mill Road to serve Lanes Mill and Herbertsville

Schools. The grant will also include a second phase of construction for the installation of curbs and sidewalks on Midstreams Road that serves Midstreams School.

The Township should identify areas of Brick that will be set aside for preservation and designated as open space, while encouraging a balanced and compatible arrangement of residential, commercial, and other appropriate land uses; and promote this balance of uses through zoning and land use decisions. As development or redevelopment occurs throughout the Township, particularly in the Town Center and other areas with existing infrastructure, Brick should encourage mixed-use developments that would allow residents to work, shop, recreate, and utilize other community amenities; where they live. Smart growth strategies that reduce vehicle miles traveled (VMT), or the amount each person drives should also be identified and encouraged. Incentives to encourage this type of development can be provided through zoning and code enforcement for re-planning and rehabilitating many of the major commercial areas and neighborhood business districts.

Goal: Promote Alternative Means of Local Transportation	
Objectives	Strategies
<i>Promote connectivity through a multi-modal circulation plan</i>	Create a bike/ped plan
	Encourage transportation alternatives to reduce vehicles miles and trips
	Utilize safe Routes to School Grants for eligible neighborhoods with schools on busy thoroughfares
	Encourage the installation of complete streets throughout the Township
<i>Encourage streetscape designs that are aesthetically pleasing to encourage pedestrian use</i>	Assess and improve the safety of various pedestrian walkways and crosswalks
Goal: Encourage a balanced and compatible arrangement of residential, commercial, and other appropriate land uses	
Objectives	Strategies
	Provide incentives through zoning and code enforcement for re-planning and

<i>Encourage mixed use developments to reduce dependence on single occupancy vehicles for all travel</i>	rehabilitating the major commercial areas and the neighborhood business districts.
	Encourage mixed use developments in the Brick Town Center to direct new development into areas of existing infrastructure.
	Locate community amenities in areas in or near existing and planned neighborhoods.
	Promote the use of home-based occupations.
<b>Goal: Promote the Preservation of Open Space and Natural Resources</b>	
<b>Objectives</b>	<b>Strategies</b>
<i>Encourage continued municipal acquisition and recreation development of vacant waterfront property for public access and use</i>	Update the Open Space and Recreation Plan
	Update the Master Plan Habitat Map
	Update the Natural Resource Inventory
	Create a municipal grounds and maintenance policy document
	Provide incentives for property owners to relocate outside of the floodplain, but remain within the Township of Brick.
<i>Utilize the Township's Land Use Ordinances to protect natural resources</i>	Evaluate the Dune Preservation Ordinance
	Evaluate the Habitat Conservation Ordinance
	Evaluate the Threatened and Endangered Species Protection Ordinance
	Evaluate the Tree Protection Ordinance
	Add a Steep Slope Protection Ordinance

## Green Building

Many components of green building design are specifically addressed in other sections of this Element. This section of the Green Element is related and should be read in conjunction with the Township of Brick's Land Use Element, Utilities Element, Recycling Element, Stormwater Element, and Conservation and Open Space Element.

Conventionally built buildings use large amounts of raw materials, energy, and water in their construction, everyday use, and over their lifespan. Indoor air quality is effected by a building's design and construction materials, and can negatively impact the occupants' health if caustic or toxic chemicals are present or if the building is not properly ventilated. Green building design and strategies are intended to not only improve the environmental and energy performance of buildings, but also lessen the impact of those buildings on the surrounding environment. Green building designs can increase energy efficiency, water conservation, indoor environmental quality, recycling, and use of recycled renewable materials; as well as reduce construction waste and the use of single occupancy automobile use by encouraging ride-sharing or other means of alternative transportation. Green building design features can also incorporate native landscaping, tree preservation, and the avoidance of environmentally- sensitive landscape features.

The Township of Brick can encourage new buildings to employ green building design techniques by encouraging LEED certification where possible. LEED, or Leadership in Energy & Environmental Design, is a green building certification program that recognizes best practices and building strategies. Building projects receive LEED certification by earning credit points for utilizing best practices and strategies. LEED certification levels vary based on the rating system and number of points received. Currently, LEED certified building is required in the Township's mixed use overlay.



While New Jersey municipalities do not have the authority to alter building codes, the Township of Brick should encourage property owners and developers to utilize green building and design practices in existing buildings and new construction, including energy efficiency, water conservation, use of recycled renewable materials, etc.

Currently, the Kohls in the Township of Brick is listed on the United States Green Building Council's database of LEED certified projects. Nearby communities have office buildings (Red Bank, Wall Township, Tinton Falls, Tuckerton), apartments (Barnegat), Police Departments (Newark), County College Buildings (Newark), and other retail sites (Manahawkin) listed as well. Brick should facilitate more LEED certified building types as well as LEED certified gold and platinum buildings within the Township.

The Township should also encourage the rehabilitation and redevelopment of existing sites and structures to include green building design techniques. Brick's Land Use Ordinance should be updated to provide incentives for developers to pursue LEED certification and incorporate green building design techniques within the Township of Brick. These incentives can include increased development intensity or other compensatory zoning measures. The Township of Brick can act as a leader for the community by requiring that all municipal facilities and infrastructure incorporate green building design techniques as upgrades and renovations becomes necessary, and pursue LEED certification where feasible.

Goal: Encourage the Use of Green Building Concepts	
Objectives	Strategies
<i>Encourage new and rehabilitated buildings to employ green building design techniques</i>	Encourage LEED certification
	Require that municipal facilities and infrastructure incorporate green building design techniques as upgrades and renovations become necessary.
	Evaluate the land use ordinance for opportunities to allow for increased development intensity or other compensatory zoning measures where green building design techniques are utilized.
	Encourage rehabilitation and redevelopment of existing sites and structures.

## Sustainable Water Resources

This section is related and should be read in conjunction with the Land Use Element, the Stormwater Management Plan, and the Conservation and Open Space Element of the Master Plan.

Water conservation and the protection of water quality in the Township of Brick is vital for protecting the environment, and in turn the economic engine that is the Barnegat Bay and the Atlantic Ocean. Additionally, protection of water quality saves money in avoided supply and remediation costs and increases the viability of important industries like fishing, shell-fishing, the marine trades, and tourism. The Township of Brick and the State of New Jersey are committed to protecting water quality and quantity through their support of innovative measures to achieve these goals.



**Figure 5. Brick Reservoir**

Most of the drinking water supplied to residents in the Township of Brick comes from surface water sources, and as such it is incredibly important to protect their water quality. The Brick Reservoir provides drinking water for over 100,000 residents in northern Ocean County. The Brick Township Municipal Utilities Authority's water treatment plant is located on the Forge Pond section of the Metedeconk River. The river, whose watershed encompasses 70

square miles provides 74% of the water, while the MUA's 2,000 foot deep wells which tap into the Raritan Magothy aquifer provide the rest. The Township of Brick and the MUA are currently working with a developer to relocate stormwater outfall locations downstream of the MUA's freshwater intake.

In December of 2010, Governor Chris Christie announced a comprehensive 10 step action plan to address the ecological health of the Barnegat Bay. This action plan included funding stormwater runoff mitigation projects, reducing nutrient pollution from fertilizer, requiring post- construction soil restoration, acquiring land in the

watershed, and special area management planning, among others. Straddling the Barnegat Bay, the Township of Brick has much to benefit from the realization of this plan. In 2011, Governor Christie signed one of the most restrictive fertilizer standards laws in the nation. This law is being implemented in three phases, and will also do much to improve the water quality of the Barnegat Bay.

The Township of Brick can help to improve the quality of the Barnegat Bay and all other water bodies in its boundaries by improving how runoff is managed and treated. The Township of Brick has an existing Stormwater Management Plan as an Element of the Master Plan. They should ensure that this is being properly implemented. Additionally, the Township should discourage the direct discharge of storm water into bodies of water and retrofit existing stormwater infrastructure that is failing or is not providing adequate groundwater recharge. For new development, the Township should require on-site retention of stormwater as part of the development regulations. Brick should also modify existing land use ordinances to promote living shorelines, green infrastructure techniques, and the use of pervious pavement wherever feasible. The ordinances can be modified to reduce the required amounts of impervious cover and provide development bonuses for green infrastructure that reduces the total impervious cover of a site. Existing riparian buffers should be protected from encroachment by new development or redevelopment of sites.

The Township of Brick can employ a number of different strategies to encourage residents and business owners to utilize water conservation practices and improve the quantity and quality of landscaping and buffer plantings throughout the community. The current land use ordinance can be updated to prohibit the use of generally accepted invasive plant species in landscaping. Through site plan review, the Township can



Figure 6. Rain Barrel located at Trader's Cove

encourage the use of native species for landscaping. Brick can set an example by incorporating native landscaping on all Township owned properties. Generally, native species are adapted to local conditions and require less watering, pesticides, and fertilizers than non-native plants; conserving water and increasing the overall quality of the watershed by reducing fertilizers and pesticides entering local waterways. The Township can promote functional landscaping by constructing rain gardens, vegetated islands and swales, and constructed wetlands on municipally owned property and encouraging other property owners to do the same.

Brick can encourage residents to practice water saving techniques through a variety of different educational outreach experiences. Currently, the Visitation Relief Center on Mantoloking Road has held bi-annual rain barrel workshops for residents. The Township should continue to support these workshops. Additionally, Brick should encourage the use of greywater in new construction for landscape watering and promote its use through educational materials. Similarly, the Township should encourage residents to use high-efficiency appliances, such as water heaters, toilets, dishwashers, low-flow showerheads, washing machines, and secondary water heaters.

Goal: Encourage residents and business owners to utilize water conservation practices	
Objectives	Strategies
<i>Improve the quantity and quality of landscaping and buffer plantings</i>	Encourage use of native landscaping.
	Prohibit the use of invasive plants.
	Promote functional landscaping such as rain gardens, vegetated islands, constructed wetlands, etc.
<i>Encourage residents to practice water saving techniques</i>	Continue to hold bi-annual rain barrel workshops.
	Encourage the installation of low maintenance landscaping and rain gardens.
	Encourage the use of greywater in new construction for landscape watering.

	Promote the use of high-efficiency appliances, such as water heaters, toilets, dishwashers, low-flow showerheads, washing machines, and secondary water heaters
Goal: Improve how runoff is managed and treated in order to improve water quality, increase groundwater recharge, and improve runoff management.	
<b>Objectives</b>	<b>Strategies</b>
<i>Improve surface and groundwater quality through the completion of the Sewerage Infrastructure Improvement Act requirements by adhering to the NJDEP Water Quality Standards and Municipal Stormwater Regulations Program</i>	Implement Municipal Stormwater Management Plan Element
	Discourage the direct discharge of storm water into bodies of water
	Reduce the off-site flow of stormwater and require on-site retention whenever feasible
	Retrofit existing stormwater management infrastructure that is failing or not providing groundwater recharge.
	Relocate stormwater outfall locations downstream of the MUA's freshwater intake
<i>Encourage the use of innovative stormwater management strategies to protect against flooding, address nonpoint source pollution, recharge groundwater, and mimic natural hydrology</i>	Modify land use ordinances as necessary to promote living shorelines and green infrastructure techniques
Goal: Increase vegetated riparian buffers and wetlands	
<b>Objectives</b>	<b>Strategies</b>
<i>Increase vegetated riparian buffers and wetlands by directing development potential away from riparian buffers, flood hazard areas, wetlands, and wetland buffers</i>	Evaluate the Riparian Buffer Ordinance
	Protect riparian buffers from encroachment from new development

Goal: Reduce Impervious Coverage	
Objectives	Strategies
<i>Provide incentives to reduce impervious coverage.</i>	Promote the use of pervious pavement techniques.
	Evaluate the Land Use Ordinance to reduce required impervious coverage in areas such as required parking, etc.
	Provide development bonuses for green infrastructure that reduces total impervious cover.

## Waste Reduction and Recycling

This section is related and should be read in conjunction with the Land Use Element and the Recycling Element of the Master Plan.

Waste reduction is accomplished by reducing the overall amount of material entering the waste stream, coupled with an increase in recycling. The Township of Brick should encourage residents and business owners to reduce the amount of waste they generate by reducing the amount of new materials and products used, reusing what they already have, and recycling when they are able. In addition to providing a healthier environment, the more materials the Township recycles and is able to keep out of the landfills, the less they have to pay to dispose of materials in landfills.

The Township of Brick offers single-stream automated recycling to its residents. All homes are given a blue recycling can in which to put all recyclables and recycling collection is done on an every other week basis. Additionally, a rigid plastics collection is held every Tuesday, with residents required to call and schedule a collection. The Township of Brick Recycling Center is also available for residents to dispose of bulk items, metals, recyclables, and brush and vegetative materials, six days a week. The Township has curbside garage pick-up as well. The Township of Brick has an aggressive public education program on the benefits of recycling, including the tremendous cost savings to the taxpayers for avoiding tipping fees for garbage disposal. Letters are sent to residents who have recycling issues; thanking them for recycling and including information on the Township's recycling guidelines, rigid plastic guidelines, and leaf collection. Additionally, the Township's Recycling Coordinator does outreach to the Township schools, senior communities, and condo associations; educating students, seniors, and other residents on recycling. The Township is looking to implement a plastic bag education program with plastic bag take-backs. The Township of Brick should increase recycling in Town Hall and other Township owned facilities to reduce overall waste disposal costs and the Township's environmental impact, as well as lead by example.

Unfortunately, there are many additional recyclable materials, including many types of plastic, which the Township of Brick does not accept. The Township should continue to implement its recycling plan and look for opportunities to expand the types of recyclable materials they accept. Additionally, the Township of Brick should encourage composting in appropriate areas.

Goal: Reduce Township waste entering landfills	
Objectives	Strategies
<i>Increase recycling</i>	Create an aggressive public education program on the benefits of recycling, including the tremendous cost savings to the taxpayers for avoiding tipping fees for garbage disposal.
	Increase recycling in Town Hall and other Township owned facilities.
	Continue to implement the Township recycling plan element and encourage the continued expansion of the Township's recycling program.
<i>Increase composting</i>	Encourage composting where appropriate.

## Food Systems

This section is related and should be read in conjunction with the Land Use Element, Population Growth, and the Circulation and Transportation Element of the Master Plan.

The American Planning Association defines food system as “the chain of activities beginning with the production of food and moving on to include the processing, distributing, wholesaling, retailing, and consumption of food, and eventually to the disposal of food waste. Food systems planning combines a number of issues which impact the food system such as the environment, transportation, social equity, and public health. The Township of Brick should support sustainable food systems planning and policies to support local economies and reduce the emission of greenhouse gases.

By improving access to healthy food and encouraging local, sustainable food production within Brick, the Township can support local, sustainable food systems. In 2015, the Township also began a pilot community garden project on the Dealaman Farm site on Herbertsville Road. This property is the location of the Robert Andstet Cultural Arts Center and is a recreational land held by the Township. This community garden has ten plots available for residents to plant, cultivate and harvest locally grown fruits and vegetables. The Township should continue to support existing community gardens and encourage the creation of new gardens where land is available. If community gardens are proposed in planned unit developments, they should qualify as open space.

The Township of Brick began a weekly farmers’ market for the 2015 season. Held every Saturday from May through September, the first week attracted over 1,000 people. The farmers’ market is funded by a US Department of Agriculture Grant and includes a website to provide visitors with information on vendors, recipes, and hours of the market. The farmers’ market should be supported and continued in future years. If necessary, additional grant funding should be sought to support its continuation. The Brick Farmers Market is located at Windward Beach on Princeton Avenue, a County roadway that has marked bicycle lanes. However, transportation to the market may be an issue for Township of Brick residents not having access to a motor vehicle, or who cannot bicycle to the site, which may also be some of the Township’s most vulnerable populations and those with the least amount of access to a variety of food choices. Nearby Point Pleasant Beach holds a weekly farmers’ market on Sundays, but it is located within walking distance of the train station. The Township of Brick does not have a train station in town, however, there are a number of bus routes that service the Town. Currently, OceanRide operates in the Township of Brick Monday- Friday. With

the addition of the Saturday Farmers Market, it may be necessary for the County to add additional routes.

Neighboring Howell Township has a Farmers Advisory Committee which meets once a month and provides recommendations to the Township Council on existing farm uses and measures to aid the farming community. While Howell Township is far more rural in character than Township of Brick, the Township of Brick may be interested in forming a network to support those active in the community gardens, small farmers, and the merchants that come to the weekly farmers market.

To provide residents with resources on healthy eating habits, the Visitation Relief Center, which opened shortly after Hurricane Sandy on Mantoloking Road, has provided the Township with a number of resources and outreach programing, including workshops on nutrition and healthy eating. The Township should support these programs and help to ensure their continuation.

Goal: Support Local, Sustainable Food Systems within the Township of Brick	
Objectives	Strategies
<i>Encourage local, sustainable food production</i>	Support community gardens within the Township, including the creation of new gardens.
	All community gardens to qualify as open space in planned unit developments.
<i>Improve access to healthy food</i>	Continue to hold nutrition workshops at the visitation relief center
	Support a seasonal weekly farmer's market within the Township
	Increase transportation options to and from supermarkets and other sources of healthy food such as farm stands and farmers markets

## Coastal Resiliency

The Township of Brick was severely impacted by Hurricane Sandy, with many homes suffering substantial damage on the barrier island and along the Bayfront. As sea level continues to rise, the Township of Brick will become more vulnerable to the impacts of coastal storms and flooding. To proactively protect themselves from future destruction, the Township of Brick is in the process of joining the Community Rating System program in an effort to increase the resiliency of the Township to climate change and future storm events. The Community Rating System (CRS) is a voluntary incentive program of the National Flood Insurance Program (NFIP) that provides participating communities with discounted flood insurance premium rates for undertaking community floodplain management activities that exceed the minimum NFIP requirements. Flood insurance premium rates are discounted in increments of 5%, reflecting the reduced flood risk resulting from community actions in four categories: public information, mapping and regulations, flood damage reduction, and flood preparedness. The three goals of the Community Rating System Program are:

1. Reduce flood damage to insurable property;
2. Strengthen and support the insurance aspects of the NFIP; and
3. Encourage a comprehensive approach to floodplain management.

Many nearby communities are already active in the CRS program or, like the Township of Brick, are in the process of receiving a credit score. The highest score a community in the State of New Jersey has received is a five (5). Within Ocean County, Beach Haven, Long Beach Township, Mantoloking, Stafford Township, and Surf City are fives (5). To maximize credit points through the CRS program Brick will undertake a number of initiatives to provide public information, mapping and regulation, flood damage reduction, and flood warning and response.

Some of the actions the Township of Brick should undertake to increase the resiliency of the Township and receive credit points in the CRS program include public information activities and open space preservation. To provide information on flood events to the residents and property owners in the Township of Brick, Brick should require real estate agents to advise potential buyers if a home is in a Special Flood Hazard Area (SFHA). Additionally, the Township should develop an education program on flood hazards within the Township of Brick including an information portal on the Township website and an annually mailing to all property owners. Brick should continue to restore and preserve open space within the Township's floodplain and prohibit fill or require compensatory storage in all or parts of the SFHA. Additionally, the Township

should prohibit certain types of building within the SFHA such as nursing homes, schools, and other critical facilities.

Goal: Increase the resiliency of the Township of Brick to climate change and future storm events	
Objectives	Strategies
<i>Maximize credit points under the Community Rating System Program</i>	Notify County Board of Realtors that they are able to obtain flood hazard information annually.
	Develop an educational program for residents and property owners on flood hazards within the Township of Brick.
	Restore and preserve open space within the floodplain.
	Require compensatory storage in all or parts of the SFHA.
	Prohibit certain types of building in the SFHA.
	Prohibit or limit the storage of hazardous materials in the SFHA.
	Enact an ordinance protecting against compaction and erosion in the floodplain.
	Adopt a plan to protect aquatic or riparian species.
	Require new development to build stormwater retention or detention basins.
	Make sure the Township stormwater control ordinance addresses water quality.

	Regularly inspect streams, ditches, and other channels to remove debris when found.
	Enact an ordinance that prohibits dumping in waterways
	Evaluate the adequacy of the Township owned stormwater collection systems in flood impacted areas
	Maintain stormwater collection systems

## Action Plan

This section presents an Action Plan that describes which activities should be implemented, who is responsible for implementing the activity, the deadline for completing the activity, the proposed budget and the funding source. There are many important activities to promote sustainability in the Township of Brick, however not all activities can be completed immediately based on available funds. The Township should initially focus on those projects that are economically feasible and will aid in the sustainability and resiliency of the Township of Brick. The following priority levels were therefore established:

- High Priority –The benefits of these activities far outweigh the costs. Funding for these projects is currently in place or there is the high likelihood for grant funds to be secured in the near future. It is recommended that the majority of these projects be completed within the next one to two years.
- Medium Priority –The benefits outweigh the costs; however, funding has not yet been secured for those activities with physical improvements. The Township should continue to seek grants and other funding sources for these activities. It is recommended that these projects be completed in the next three to five years as funding becomes available.
- Low Priority – Activities in this category will increase the sustainability of the Township of Brick and are cost-effective. However, it is understood that these projects are not as critical as those identified as high or medium priority and that funding may be difficult to obtain.
- Ongoing – Activities in this category are required on a continuous or regular basis to be effective. These activities do not require special funds outside of the Township’s standard budget.

The following is the recommended Action Plan for the Township of Brick:

## Climate Change and Greenhouse Gas Emissions

Action Item	Priority	Responsible Party	Timeline	Funding Source
Conduct a Township-wide energy audit to reduce energy dependence and cut utility costs.	High	Sustainable Brick Committee	Variable	Township general funds or grants where available
Conduct a follow-up energy audit in the Municipal Building to determine if green initiatives have reduced energy usage	High	Sustainable Brick Committee	Variable	Township general funds or grants where available
Conduct an energy audit at the DPW building	High	Sustainable Brick Committee	Variable	Township general funds or grants where available
Revitalize the efforts to create a master plan for energy purchasing		Purchasing Dept.; Land Use Dept.	Variable	Township general funds
Encourage Sustainable Schools participation	On-going	School Superintendent	Ongoing	

## Energy Conservation and Renewable Energy Production

Action Item	Priority	Responsible Party	Timeline	Funding Source
Promote local production of renewable energy by revising the land use ordinance to make it easy for property owners in all zone districts to produce renewable energy on their property as an accessory use.	High	Planning Department- Ordinance update	2016	NJDCA- Phase II Post Sandy Planning Assistance Grant
Maintain the solar panels installed on Town Hall.	Ongoing	Public Works	Ongoing	Township General Funds
Use the existing wind turbine to educate residents and permit wind energy facilities in appropriate zone districts.	Ongoing	Sustainable Brick Committee	Ongoing	
Encourage residents to utilize rooftop solar panels where feasible.	Medium	Planning Dept.	Ongoing	Township General Funds
Encourage property owners to install solar panels over existing impervious coverage or as part of future redevelopment.	Medium	Planning Dept.	Ongoing	Township General Funds
Encourage new developments to utilize renewable energy sources.	High	Planning Dept.	Ongoing	Township General Funds
Work to attract businesses that specialize in renewable energy.	Ongoing	Sustainable Brick Committee	Ongoing	Township General Funds
Replace traditional lighting fixtures with more energy efficient and/or solar powered lighting fixtures (street lighting, traffic signals, public buildings and facilities)	Low	Public Works	Ongoing	Pursue grant opportunities

Promote green building design techniques	High	Planning Dept.	Ongoing	Township General Funds
Encourage energy conservation policies through techniques as applied in Site Plan Subdivision Review and other Governmental action.	High	Planning Dept.- Ordinance update	Ongoing	Township General Funds
Require new development to utilize passive solar strategies	High	Planning Dept.- Ordinance update	Ongoing	Township General Funds
Require that municipal facilities and infrastructure incorporate energy conservation measures as upgrades and renovations become necessary	High	Sustainable Brick Committee	Ongoing	Township General Funds
Encourage schools to install solar panels as an energy source	Medium	Sustainable Brick Committee	Ongoing	

## Sustainable Land Use Patterns and Increased Mobility

Action Item	Priority	Responsible Party	Timeline	Funding Source
Create a bike/ped plan	High	Planning Dept.	Variable	
Encourage transportation alternatives to reduce vehicles miles and trips	Ongoing	Planning Dept.	Ongoing	Township General Funds
Utilize safe Routes to School Grants for eligible neighborhoods with schools on busy thoroughfares	Ongoing	Planning Dept.	Awaiting DOT approval on plans.	The Township has recently received its 3 <sup>rd</sup> Safe Routes to School Grant.
Encourage complete street implementation	High	Planning Dept.	Ongoing	Township General Funds
Assess and improve the safety of various pedestrian walkways and crosswalks	Ongoing	Engineering Dept.	Ongoing	Township General Funds
Provide incentives through zoning and code enforcement for re-planning and rehabilitating the major commercial areas and the neighborhood business districts.	High	Planning Dept.- new ordinance	Late 2016	NJDCA- Phase II PSPAG
Encourage mixed use developments in the Brick Town Center to direct new development into areas of existing infrastructure.	High	Planning Dept.	Ongoing	Township General Funds
Locate community amenities in areas in or near existing and planned neighborhoods.	High	Planning & Engineering Depts.	Ongoing	Private developers
Promote the use of home-based occupations.	Ongoing	Home offices regulated by §245-16	Ongoing	Township General Funds
Update the Open Space and Recreation Plan	High	Planning Dept.	2016	NJDCA- Phase II PSPAG

Update the Master Plan Habitat Map	High	Planning Dept.	Variable	
Update the Natural Resource Inventory	High	Planning Dept.	Variable	
Create a grounds and maintenance policy document	High	Public Works	Variable	
Encourage new development and redevelopment outside of the floodplain	High	Planning Dept., Construction Office	Ongoing	Township General Funds
Revise the Dune Preservation Ordinance	High	Planning Dept.	Late2016	NJDCA- Phase II PSPAG
Revise the Habitat Conservation Ordinance	High	Planning Dept.	Late 2016	NJDCA- Phase II PSPAG
Revise the Threatened and Endangered Species Protection Ordinance	High	Planning Dept.	Late 2016	NJDCA- Phase II PSPAG
Revise the Tree Protection Ordinance	High	Planning Dept.; Shade Tree Commission	Late 2016	NJDCA- Phase II PSPAG
Create Municipal Public Access Plan	High	Planning Dept. & Enviro Commission	Variable	

## Green Building

Action Item	Priority	Responsible Party	Timeline	Funding Source
Encourage LEED certification for any new building	Ongoing	Construction Dept.; Planning Dept.	Ongoing	Township General Funds
Require that municipal facilities and infrastructure incorporate green building design techniques as upgrades and renovations become necessary.	High	Planning & Engineering Depts.	Ongoing	Township General Funds
Evaluate the land use ordinance for opportunities to allow for increased development intensity or other compensatory zoning measures where green building design techniques are utilized.	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Encourage rehabilitation and redevelopment of existing sites and structures.	High	Planning Dept.	Ongoing	Private developers

## Sustainable Water Resources

Action Item	Priority	Responsible Party	Timeline	Funding Source
Encourage use of native landscaping by conducting workshops on native plantings and holding a demonstration at the Green Fair.	Ongoing	Sustainable Brick Committee; Planning Dept.	Ongoing	Grants
Prohibit the use of invasive plants.	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Promote functional landscaping such as rain gardens, vegetated islands, constructed wetlands, etc.	High	Sustainable Brick Committee; Planning Dept.; Engineering; Shade Tree Commission	Ongoing	
Continue to hold bi-annual rain barrel workshops.	Ongoing	Sustainable Brick	Ongoing	
Encourage the installation of low maintenance landscaping and rain gardens.	High	Planning; Shade Tree Commission	Ongoing	Township General Funds
Encourage the use of greywater for landscape watering.	High	Planning; Shade Tree Commission	Ongoing	Township General Funds
Promote the use of high-efficiency appliances, such as water heaters, toilets, dishwashers, low-flow showerheads, and washing machines	High	Sustainable Brick Committee	Ongoing	Township General Funds
Implement Municipal Stormwater Management Plan Element	High	Planning; Engineering Depts.	Variable	
Discourage the direct discharge of storm water into bodies of water	High	Engineering Dept.	Ongoing	Township General Funds

Reduce the off-site flow of stormwater and require on-site retention whenever feasible	High	Engineering Dept.	Ongoing	
Retrofit existing stormwater management infrastructure that is failing or not providing groundwater recharge.	High	Engineering Dept.	Ongoing	Township General Funds
Modify land use ordinances as necessary to promote living shorelines and green infrastructure techniques	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Evaluate the Riparian Buffer Ordinance	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Protect riparian buffers from encroachment from new development	Ongoing	Engineering; Planning Depts.	Ongoing	Township General Funds
Promote the use of pervious pavement techniques.	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Evaluate the Land Use Ordinance to reduce required impervious coverage in areas such as required parking, etc.	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Provide development bonuses for green infrastructure that reduces total impervious cover.	High	Planning Dept.	2016	NJDCA- Phase II PSPAG

## Waste Reduction and Recycling

Action Item	Priority	Responsible Party	Timeline	Funding Source
Create an aggressive public education program on the benefits of recycling, including the tremendous cost savings to the taxpayers for avoiding tipping fees for garbage disposal.	Ongoing	Public Works- Recycling Coordinator	Ongoing	Township General Funds
Increase recycling in Town Hall and other Township owned facilities.	High	Public Works- Recycling Coordinator	Ongoing	Township General Funds
Increase recycling at all commercial properties within Brick	Medium	Public Works- Recycling Coordinator	Ongoing	Township General Funds
Increase recycling on all school properties.	Medium	Public Works- Recycling Coordinator	Ongoing	Township General Funds
Continue to implement the Township recycling plan element and encourage the continued expansion of the Township's recycling program.	Ongoing	Public Works- Recycling Coordinator	Ongoing	Township General Funds
Encourage composting where appropriate.	High	Public Works- Recycling Coordinator	Ongoing	Township General Funds

## Food Systems

Action Item	Priority	Responsible Party	Timeline	Funding Source
Support community gardens within the Township, including the creation of new gardens.	High	Sustainable Brick Committee	Ongoing	Township General Funds
All community gardens to qualify as open space in planned unit developments.	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Continue to hold nutrition workshops.	Ongoing	Sustainable Brick Committee; Senior Services Center	Ongoing	Grants
Support the seasonal weekly farmer's market within the Township and increase the hours of operation.	Ongoing	Recreation; Planning Depts.	Ongoing	Grants

## Coastal Resiliency

Action Item	Priority	Responsible Party	Timeline	Funding Source
Notify County Board of Realtors that they are able to obtain flood hazard	Ongoing	Floodplain Manager	Yearly	Township general funds
Develop an educational program for residents and property owners on flood hazards within the Township of Brick.	Ongoing	Floodplain Manager	Variable	Township general funds, grants where available
Restore and preserve open space within the floodplain.	Ongoing	Planning	Ongoing	Township, County, State, Federal, and non-profit funding
Require compensatory storage in all or parts of the SFHA.	Medium	Planning Dept.	2016	NJDCA- Phase II PSPAG
Prohibit certain types of building in the SFHA.	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Prohibit or limit the storage of hazardous materials in the SFHA.	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Enact an ordinance protecting against compaction and erosion in the floodplain.	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Adopt a plan to protect aquatic or riparian species.	High	Planning		Township General Funds
Require new development to build stormwater retention or detention basins.	High	Planning Dept.	2016	NJDCA- Phase II PSPAG
Make sure the Township stormwater control ordinance addresses water quality.	High	Planning; Engineering	2016	NJDCA- Phase II PSPAG

Regularly inspect streams, ditches, and other channels to remove debris when found.	High	Engineering	Annually	Township General Funds
Enact an ordinance that prohibits dumping in waterways	Ongoing	Planning; Engineering	2016	NJDCA- Phase II PSPAG

## Implementation Strategies

### Policy Changes:

- Complete Streets: The Township of Brick should require that as Township owned roads get repaved, expanded, or updated they implement Complete Street strategies to the best of their ability, given space constraints.
- Energy Conservation:
  - Require new development to utilize passive solar strategies
  - Encourage energy conservation policies through techniques as applied in Site Plan Subdivision Review and other Governmental action
  - Promote local production of renewable energy by revising the land use ordinance to make it easy for property owners in all zone districts to produce renewable energy on their property as an accessory use.
- Stormwater Control: Evaluate the adequacy of Township stormwater collection systems

### Ordinance Updates:

The following ordinances should be updated or implemented:

- Dune Preservation Ordinance
- Habitat Conservation Ordinance
- Threatened and Endangered Species Protection Ordinance
- Tree Protection Ordinance
- Update Chapter 245, Part 5: Landscaping and Buffer Requirements:
  - Prohibit the use of invasive plants
  - Encourage the use of native landscaping
- Update Article XXXVIII A: Supplemental Land Use and Zoning Regulations in Special Flood Hazard Areas:
  - Require compensatory storage in all or parts of the SFHA
  - Prohibit certain types of building in the SFHA
  - Prohibit or limit the storage of hazardous materials in the SFHA
  - Enact an ordinance protecting against compaction and erosion in the floodplain.
- Stormwater Control:
  - Make sure the Township stormwater control ordinance addresses water quality
  - Require new development to build stormwater retention or detention basins.

