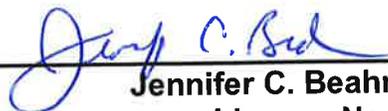

STRATEGIC RECOVERY PLANNING REPORT
Adopted August 27, 2014



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1. Executive Summary

Superstorm Sandy was one of the largest storms to ever hit the northeastern United States. Causing an estimated \$70 billion in damage, Sandy was the most destructive hurricane of the 2012 Atlantic hurricane season and the second-costliest hurricane in U.S. history. In New Jersey, high winds and precipitation, as well as ocean, bay and tidal river storm surge caused flooding and excessive damage to homes, businesses, critical infrastructure such as roads, pump stations, and coastal protective barriers including dunes, bulk heads, and jetties.

Initially in the April 29, 2013 Action Plan, the Department of Community Affairs allocated \$5 million in Community Development Block Grant- Disaster Recovery (CDBG-DR) funds towards the Post Sandy Planning Assistance Grant Program (PSPAG). The goal of the PSPAG is to support municipalities and counties affected by Superstorm Sandy to develop long range plans for community redevelopment and hazard mitigation. The PSPAG program offers grants to municipalities and counties to hire American Institute of Certified Planners/New Jersey Board of Professional Planners (AICP/PP) licensed planners to address the issues caused by the storm, draft plans to rebuild a more sustainable and resilient community that can withstand damage from future storms, and encourage sustainable economic growth.

On October 28, 2013, Housing and Urban Development (HUD) announced a second allocation of CDGB-DR funds to Sandy-impacted states. As a result, New Jersey published a Substantial Amendment to its Action Plan and allocated an additional \$10 million to the PSPAG and other planning-related programs.

In order for the Township of Neptune to be eligible for grant activities under the PSPAG program, Neptune must have completed a comprehensive Strategic Recovery Planning Report. This Report will evaluate the impacts of Superstorm Sandy on the community's infrastructure and economic growth. The Strategic Recovery Planning Report for Neptune will focus on the goals, strategies, and actions that are urgently needed for the public safety of Neptune's citizens and the economic recovery of the Township. Once the Strategic Recovery Planning Report is completed, the Township of Neptune will be eligible for the following grants: re-examination reports for master plans or resiliency plans, community development and neighborhood plans, design standards, capital

improvement plans, suburban environmental design, and development of codes or ordinances.

The Township of Neptune has been progressive in improving hazard mitigation and resiliency. The recommendations set forth in this Report, along with further funding, will allow the Township to continue with its efforts. These recommendations focus on improving the resiliency of infrastructure, updating Master Plan elements to improve consistency with hazard mitigation initiatives, economic development, housing, communication and education, capital improvement, and Community Rating System compliance. The goal of these recommendations is to prevent the loss life and property caused by future storm events.

2. Introduction

2.1 Purpose of Report

Due to the damage caused by Superstorm Sandy, many New Jersey municipalities and counties face a myriad of recovery challenges. Among them is the need for planning support to develop community recovery plans that strategically address the issues that now confront them.

This Strategic Recovery Planning Report (SRPR) will serve as a blueprint to guide the recovery of Neptune Township from the effects of Superstorm Sandy and to reduce vulnerabilities to future storms. Accordingly, the Report will:

- Evaluate the impacts on affected community features in Neptune and address the conditions created or exacerbated by the storm;
- Articulate the planning goals, strategies, and priority projects and actions that are most urgently needed to improve public safety, increase resistance to damage from future storms, and stimulate economic recovery; and
- Contain detailed descriptions of each proposed action and project; a statement of need that demonstrates how each action or project relates to the impacts of Superstorm Sandy; why the action or project is important to the economic and environmental health of the community; and the major tasks associated with each action or project.

Township input was consulted during the entire preparation of this Report. CME Associates worked closely with the Engineering and Planning Department and the Office of Emergency Management in order to develop relevant and effective recommendations for the Township. In accordance with the Municipal Land Use Law, the SRPR was publically advertised in local newspapers. Public input was given during the Planning Board Meeting before adoption of this Report.

2.2 Neptune Township Profile

Neptune Township is located in southeastern Monmouth County. The Township is bordered by Ocean Township and Asbury Park to the north, Tinton Falls to the west,

Wall Township to the south and Bradley Beach, Neptune City, Avon and Belmar to the east. Shark River runs along the southern boundary of the Township and the Ocean Grove area is bordered to the east by the Atlantic Ocean. The Township has a total area of 8.672 square miles, of which, 8.182 square miles is land and 0.49 square miles is water.

Neptune Township lies primarily within the Shark River Watershed, which is located in Watershed Management Area 12. The majority of the Township drains to Shark River through Jumping Brook, Musquash Brook, several small feeder streams, or directly to Shark River. The more significant small feeder streams in Neptune include Wells Brook and Hankins Brook. Shark River drains nearby to the Atlantic Ocean. Some land in Neptune flows to Hollow Brook, a tributary of Deal Lake, or directly to one of the three coastal lakes: Deal Lake, Fletcher Lake, and Wesley Lake.

As of the 2010 United States Census, Neptune Township had a population of 27,935 people at a density of 3,414.3 persons per square mile. There were 12,991 housing units, at an average density of 1,587.8 units per square mile. Development patterns within the Township are typical of an auto-oriented suburban community. The Township is predominated by low- to medium-density single-family residential development, with non-residential uses concentrated along regional highway corridors and county routes. The North Jersey Transportation Planning Authority's *Plan 2040* projects that the population of Neptune Township will continue to increase, and estimates that the population will reach 30,850 by 2040. While single-family detached residences are the most common housing type within the Township, when considering the continuing increase in population, new residential development within the Township has trended toward townhome, condominium, and multi-family developments.

Neptune has access to several major State highways. Nearby highways running north/south include Route 18, which runs through the central portion of the Township, Route 35, Route 71 and the nearby Garden State Parkway. Routes 33 and 66 serve as major east/west transportation corridors throughout the Township.

Neptune Township does not currently have any mass transit train stations; however, residents are served by New Jersey Transit trains at the Bradley Beach and Asbury Park stations via North Jersey Coast Line which provides commuter service to New York City. New Jersey Transit bus service between the Township and Philadelphia is available on the 317 route, while local service is provided by the 830, 832 and 836 routes.

3. Assessment of Existing Planning Documents

The following section examines the adequacy of the existing municipal and county planning and emergency management documents. These documents describe the changes needed to support and achieve municipal planning goals, to address municipal needs related to post storm recovery and to mitigate future storm impacts. The following sections detail the existing policy documents relevant to the Township.

3.1 Township Documents

Neptune Township Comprehensive Master Plan, 2012

Neptune Township's Master Plan embraces the general purposes regarding the local planning process outlined in the New Jersey Municipal Land Use Law. The following goals and objectives were provided to serve as an overall framework for development and preservation:

1. To advance the purposes of the Municipal Land Use Law as contained within NJSA 40:55D-2.
2. Promote a balanced variety of residential, commercial, industrial, recreational, public and conservation land uses.
3. Preserve and enhance the existing character of the residential neighborhoods in the Township while providing a mix of housing types and uses.
4. Provide a variety of housing opportunities for all income levels in appropriate locations consistent with environmental constraints.
5. Promote aesthetic and site improvements in the Township's major commercial and industrial areas.
6. Provide for the utilization of the Township waterfront for appropriate uses.
7. Guide the redevelopment and development of the remaining large parcels and scattered vacant sites within neighborhoods to ensure proposed uses support existing uses without adverse impact in terms of land use compatibility, traffic, economic, and aesthetic impacts.
8. Maintain a balance between residential and non-residential uses to ensure a stable and sound community tax base and provide local employment opportunities.

9. Provide a circulation network for vehicles, bicycles and pedestrians that permits safe and efficient travel.
10. Provide adequate community facilities and services in order to enhance the quality of life for existing and future Township residents and respond to changing demographics.
11. Promote the preservation of natural resources and environmentally sensitive areas; particularly wetland, woodland, coastal, flood hazard and aquifer recharge areas.
12. Provide for additional open space and maintain and enhance existing parkland.
13. Ensure that the Township's Land Use Plan is compatible with adjacent municipalities, the County and the State of New Jersey.
14. Pursue *Certified Local Government* designation for the Township to assist in the preservation of the Historic District and allow further ability to pursue grants and funding opportunities.

Parks, Recreation & Open Space Element

The basic goal of the Neptune Township Parks, Recreation and Open Space Plan is to fulfill reasonable and affordable needs and demands for recreation and open space by present and future residents of the Township through acquisition, development, and maintenance of park and recreational facilities within the Township.

The following are the goals and objectives of the Parks, Recreation and Open Space Element.

1. Provide adequate, appropriate and well-maintained and ADA accessible parks and recreational facilities that contribute to a high quality of life for Township residents.
2. Maintain compliance of all park and recreation sites with the guidelines and policies set forth by the U.S. Consumer Safety Products Commission and the American Society for Testing and Materials (ASTM). Each site should be audited by a Certified Safety Inspector, and a program should be established for implementing all the required corrective measures.

3. Continue to plan for realistic capital improvement programs, for each existing park and recreation site, to provide continuous annual improvement towards the completion of the individual audits so that the recreational needs of the Township may be satisfied for today, tomorrow and through the next decade.
4. Protect parks, open spaces and recreation areas from commercial, industrial and residential encroachment.
5. Encourage the maintenance of parks and recreational facilities that are expanded or improved over time to reflect changes in demographic trends, recreational interests or facility use patterns.
6. Continue to work with the Board of Education, private recreation facilities and other entities to improve the availability and maintenance of recreation facilities to serve Neptune residents.
7. Continue to provide opportunities for both active and passive recreation in Neptune. Continue to seek funding sources that will enable the Township to acquire additional properties adjacent to existing parks or Board of Education facilities to link together parks and recreational facilities through a system of greenways, many of which should run along the Township's stream corridors and through other natural areas.
8. Encourage the provision of a diverse range of parks and recreational facilities that serve residents of all age groups and physical abilities.
9. Ensure easy and convenient access to parks and recreational facilities.
10. Link local, county and State parkland, open space and community facilities where possible.
11. Coordinate park planning with initiatives for farmland and open space preservation and natural resources conservation.
12. Maintain consistency with the Parks, Recreation and Open Space Master Plan adopted by the Township in 1998.
13. Educate the public to availability of private and non-public facilities.

Neptune Township Stormwater Management Plan, 2009

Adopted in 2007 and later revised in 2009, the Stormwater Management Plan (MSWMP) provides the Township with a strategy and approach for addressing stormwater related impacts resulting from development of lands or land use

changes. The plan addressed groundwater recharge, stormwater quantity, and stormwater quality impacts by incorporating strict stormwater design performance standards for new major development or redevelopment. Additionally, the MSWMP described the long-term operation and maintenance measures for existing and future stormwater facilities.

The goals and objectives of the MSWMP as they relate to this SRPR include:

- Reduce flood damage, including damage to life, property and the environment;
- Minimize, to the extent practical, an increase in stormwater runoff from any new development or redevelopment;
- Reduce soil erosion from any development, construction project, or disturbance of land;
- Assure the adequacy of existing and proposed culverts and bridges/overpasses, and other in-stream structures;
- Maintain groundwater recharge;
- Prevent, to the greatest extent feasible, an increase in non-point pollution;
- Maintain the integrity of stream channels for their biological function, as well as for drainage;
- Minimize pollutants in stormwater runoff from new and existing development to restore, enhance, and maintain chemical, physical, and biological integrity of the waters of the State, to protect public health, to safeguard fish and aquatic life and scenic and ecological values, and to enhance the domestic, municipal, recreational, industrial, and other uses of water;
- Protect public safety through the proper design and operation of stormwater basins;
- Preserve open space and natural resources, including waterfront access and views; and
- Preserve natural systems and environmentally sensitive areas, particularly wetland, woodland, coastal, flood hazard and aquifer recharge areas.

The MSWMP identified flooding and runoff problems throughout the various sections of the Township in order to provide for future remedy. These include:

- *Mid-Town*: Extend the existing drainage system to eliminate ponding along West Lake Avenue and intersecting streets.
- *Ocean Grove*: Install drainage pipe to eliminate flooding in the Main Avenue business district. Upgrade the existing system, which drains toward Fletcher Lake.
- *Shark River Hills*: Cleaning and replacement of stormwater outfalls, installation of shoreline protection, and reconstruction of the intersections along the Shark River waterfront area (Riverside Drive).

Environmental Resource Inventory 2003, 2012

The Environmental Resource Inventory (ERI) was prepared for the Environmental Commission of Neptune. The purpose of the ERI is to provide comprehensive information and to serve as a reference manual and resource on the environment for municipal officials, potential developers, planners, engineers, contractors and other parties.

The ERI is designed to provide information useful to understand the Township's environmental constraints and to evaluate the impacts of past and future development. This is especially important when considering increased surface water runoff and potential flooding.

Land Development Ordinance

Neptune Township's Land Development Ordinance (LDO) contains specific provisions to protect environmentally critical areas from the negative effects of development as follows:

- **§ 419 FLOOD HAZARD REGULATIONS-** The Flood Hazard Regulations Ordinance is in place to reduce public or private losses from flood conditions. It allows the Township to control Flood Boundaries and Floodway Maps through FEMA's National Flood Insurance Program. It imposes stipulations on building in flood zones to minimize damage and has requirements for new construction design.

Emergency Operations Plan

The Emergency Operations Plan (EOP) was compiled to protect life and property in natural disasters, technological disasters and national security crises by coordinating response activities of municipal and volunteer entities to ensure their optimum use. According to the EOP, Neptune Township is at high risk for hazards including chemical spill, flood, gas failure, hurricane, nuclear attack and water supply failure. The EOP provides for actions to be taken to mitigate, prepare for, respond to, and recover from the effects of an emergency or disaster occurrence. Neptune Township's Emergency Management Phases include the following actions:

Mitigation: Effort to reduce loss of life and property by lessening the impact of disasters.

Preparedness: Continuous cycle of planning, organizing, training, equipping, exercising, evaluating and taking corrective action to ensure effective coordination.

Response: Direct assistance to the disaster area or as a support agency to first-responders.

Recovery: Includes determining the impact and identifying the needs to return to pre-disaster condition.

Figure 1 on the following page shows key personnel and responsibilities that would be undertaken should disaster occur in Neptune Township.

3. Selected Key Responsibilities

Township Mayor

- a) Ensure continuity of government
- b) Sign Declaration of Disaster as prepared by EM Coordinator
- c) Enact emergency legislation appropriate for situation
- d) Act on situations exceeding Administrators' authority
- e) Inform the public of current situation, in a timely manner
- f) Assist in establishing overall priorities
- g) Take appropriate measures to ensure expeditious actions

Township Administrator

- a) Maintain Government continuity of operations
- b) Appoint lead PIO; ensure elected officials kept current
- c) Request voluntary assistance of local business community
- d) Manage contract control to carry out emergency ops
- e) Initiate *Declaration of State of Emergency*; support documents
- f) Request emergency status; establish curfews as needed
- g) Serve as liaison with local municipalities
- h) Advise EOC Manager on command and control policy issues
- i) Authorize request for state aid

Coordinator, Emergency Management (EM)

- a) Maintain emergency alert list; coordinate alert
- b) Make Declaration of Disaster for affected area(s)
- c) Activate *EOC*; brief *Command*; coordinate public warning
- d) Establish information contacts; coord. requests for assistance
- e) Coord. multi-organizational mitigation, response and recovery
- f) Identify/coord. gov't/private resources for emergency support
- g) Advise *Mayor* on evacuation or in-place shelter
- h) Arrange for the establishment of congregate care centers
- i) Coordinate evacuation; damage assessments; document
- j) Coordinate preparation of assistance requests/programs

Operations Section Chief

- a) Activate/supervise organization elements as per *IAP*
- b) Manage all tactical operations for incident
- c) Help formulate and interpret strategy; implement it tactically
- d) Direct preparation of *Unit Operational Plans*; manage resources
- e) Expedite changes to *IAP*; report changes to *EOC Mgr*
- f) Ensure *IAP* operational objectives carried out effectively
- g) Continuously monitor/improve organizational effectiveness

Planning Section Chief

- a) Activate and supervise *Section* support units
- b) Collect/evaluate/disseminate incident info.; resource status
- c) Based on current info., predict probable course of events
- d) Prepare alternative strategies; control operations
- e) Conduct *Planning Meetings*; prepare/maintain *IAP* (with IC)
- f) Utilize qualified out-of-svc staff; determine specialized help
- g) Gather, post, and maintain current incident resource status
- h) Develop *Traffic/Medical* plans; oversee preparing *Demob. Plan*

Finance/Administration Section Chief

- a) Activate/supervise Section support; provide financial guidance
- b) Manage financial aspects; analyze/track costs; risk mgmt
- c) Manage/expedite purchases, contracts, agreements
- d) Document costs; provide cost forms to participating Agencies
- e) Prepare/coordinate applications for federal/state assistance
- f) Provide financial estimates, alternatives and recommendations

Logistics Section Chief

- a) Provide support needed – facilities, services, personnel, equipment, supplies, communications
- b) Participate in developing/implementing Incident Action Plan
- c) Provides shelter/food/transportation for emergency workers/public
- d) Identifies food/water/ice sources; manage sanitary activities
- e) Coord./support *Mass Care-Reception Centers*; animal protection

Public Information Officer (PIO)

- a) Establish/manage PIC; designate public emergency tel. no.
- b) Authenticate information sources; provide essential information
- c) Coordinate/clear all news releases with *EM Coordinator*
- d) Control rumors; arrange interviews/tours of emergency sites
- e) Provided missing person contact information
- f) Maintain emergency materials; make available to public/ media

Law Enforcement In addition to regular duties -

- a) Maintain order at disaster area; reception centers; shelters
- b) Assist with evacuations; coordinate with other law agencies
- c) Maintain public security at disaster area/shelters/critical facilities
- d) Control disaster area access; traffic/evacuation movement
- e) Provide communications support; help notify public

Public Works In addition to regular duties -

- a) Repair critical facilities, potable water, sanitation
- b) Clear debris; provide generators; manage contractor work
- c) Drain flooded areas; protect water supply; sewage from *HazMat*
- d) Assess effect/safety of buildings/infrastructures; demolish unsafe
- e) Comm. support; traffic capacity estimates; damage assess'mt

Emergency Medical Services In addition to regular duties -

- a) Provide emergency medical treatment/transportation
- b) Diagnose/treat; as per set priorities; report casualties to EOC
- c) Establish/operate nearby medical centers for essential workers

Fire Departments In addition to regular duties -

- a) Deploy/coordinate fire services
- b) Notify stations; help notify public; administer Fire Mutual Aid Plan
- c) Assist in providing search/rescue/EMS/HazMat
- d) Communicate evacuation route conditions; assist evacuation
- e) Provide fire protection in evacuated area/shelters
- f) Provide communications support; selective decontamination

Incident Commander (IC)

- a) Highest ranking responding officer
- b) Direct field operations and on-scene response force
- c) Contact building owners; establish on-scene *Command Post*
- d) Establish perimeter for disaster area; control area; staging area
- e) Arrange for radio, tel. and b/u power; establish EOC communications
- f) Establish/control emergency routes; arrange security / crowd control
- g) Recommend/direct evacuation; update *County EOC* regularly
- h) Arrange protective clothing; accommodations/food for personnel

3.2 County Documents

Monmouth County Growth Management Guide, 1982

Adopted in 1982 as the Monmouth County Master Plan, Monmouth County's Growth Management Guide (GMG) is the County's primary planning tool. The GMG is intended to provide a framework for planning and decision making at the county and municipal levels and provides a "jumping off point" for the ongoing dialogue between the County and its municipalities.

Environmentally Sensitive Area policies in this plan that are relevant to the SRPR include:

- Restrict non-water related development in coastal flooding and high-risk erosion areas.

- Establish a coastal development district to set density, location, and use standards for areas adjacent to the Atlantic Ocean and the Sandy Hook and Raritan Bays.

- Prohibit high-rise structures from all areas east of the first public roadway from the Bay and discourage structures within 1,000 feet of the Bay shoreline.

- Allow for oceanfront development of beach-related commercial and recreational activities where such uses have been traditionally located.

- Encourage new coastal development compatible with the surrounding environment.

- Continue to protect tidal wetlands through state and federal wetlands management programs.

- Encourage municipalities to adopt ordinances providing for the protection and conservation of freshwater wetlands.

- Encourage municipalities to adopt and enforce floodplain ordinances to protect life and property against floodwaters, and to protect floodplains from development.

In 1995, the Monmouth County Planning Board adopted the Goals, Objectives and Policies as an element of the Growth Management Guide. Goals of the GMG relevant to the SRPR include the following:

- Air Resources: To promote land use planning that encourages the use of transit, walking and cycling, and the creation of centers in order to improve air quality by reducing automobile trips and congestion.
- Centers: To promote new and revitalize older urban areas into well designed mixed use centers with an easily accessible, compact but varied core of residential, commercial, and community services which provide employment and create a specific identity.
- Comprehensive Planning: To promote comprehensive planning among all levels of government as well as the private sector by sharing information and developing a continuing dialogue on regulations, plans, policies, and issues.
- Economic Development: To promote managed growth by providing a suitable long-term economic climate and preserving and enhancing the quality of life in Monmouth County for the attraction of new businesses and the retention of existing businesses.
- Historic, Cultural, Natural, and Scenic Resources: To preserve the valuable historic, cultural, natural, and scenic resources of Monmouth County.
- Housing: To provide housing opportunities for all residents of Monmouth County.

- **Transportation:** To plan for a comprehensive and reliable intermodal transportation system that properly provides for public safety and meets the needs of the County's workers, residents, and visitors as well as respects the environment.
- **Water Resources:** To provide all of Monmouth County with a safe and pollution-free water environment, and conserve valuable water-oriented resources.

Monmouth County Master Plan Draft, 2014

The Monmouth County Planning Board is in the process of undertaking a comprehensive update to the County Master Plan, with drafts of its vision statement, as well as goals, principles, and objectives, available on the Monmouth County Division of Planning website.

The Plan's draft principles that are relevant to this SRPR include the following:

- **Comprehensive Planning:** Planning issues are to be addressed from interdisciplinary perspectives to identify and assess both interdependent and collective impacts and opportunities. This will minimize adverse impacts while maximizing benefits for all parties.
- **Coordination:** Effectual planning requires integration and coordination both internally (horizontally) and with other levels of government (vertically).
- **Approach:** Comprehensive planning relies on the use of new and emerging technologies as well as traditional methods of input from stakeholders and citizens.
- **Natural Resources:** Natural resources are life supporting infrastructure that all human and built environments are dependent upon to function and prosper.

- Investments in Preservation Areas: Aligning state, local, and county preservation strategies improves efficiency and reduces cost in protecting natural and unique resources.
- Preservation of Community Character: Protect and strengthen the established character of municipalities and their unique, individual qualities.
- Recovery and Community Resiliency: Promote planning, land use, and design strategies that increase the capacity to adapt physically and economically to long-term environmental changes and natural hazards.
 - Objectives:
 - Participate in long-term recovery, mitigation, and resiliency efforts to better protect people, businesses, and resources against environmental damage and natural disasters.
 - Assist in the coordination of the County’s long-term disaster recovery planning initiatives.
 - Provide assistance to other County agencies involved in disaster response and emergency management.
 - Provide technical assistance to municipalities in disaster recovery efforts.
- Investment in Growth Areas: Aligning state, local, and county investment strategies improves efficiency and reduces cost in repairing, and expanding systemic infrastructure.

The Plan will be a vital tool used by municipalities, school boards, businesses, and other government agencies to help guide efforts that contribute to a strong, stable, and sustainable Monmouth County.

Coastal Monmouth Plan, 2007, Revised 2010

The Coastal Monmouth Plan (CMP) sought to create a vision and planning strategy for the Coastal Monmouth Region (CMR) to cooperatively address development issues on a regional scale in a manner that is sensitive to the area's unique coastal setting, diverse community character and critical environmental, cultural and aesthetic resources. The following objectives were identified within the CMP:

1. To preserve and enhance the character and quality of life in the CMR.
2. To identify and assess current and future land use, economic development, public services, transportation and design issues within the CMR.
3. To identify development, redevelopment and revitalization opportunities within the CMR.
4. To identify and address conservation strategies to aid in the preservation, protection and accessibility to the region's sensitive environmental, cultural and aesthetic resources.
5. To identify and assess transportation strategies that provide safe, efficient and enhanced multimodal mobility for the CMR.
6. To identify and assess public infrastructure (water, sewer, schools) capacities to ensure sustainable development within the region.
7. To identify and assess community design strategies that will provide alternative models to address specific design issues identified in the CMR.
8. To identify and assess regional mechanisms that will encourage regional cooperation to address multi-municipal concerns.
9. To cooperatively prepare a regional plan for submittal to the State Planning Commission for Plan Endorsement.

Monmouth County Multi-Jurisdictional Natural Hazard Mitigation Plan, 2009

The Monmouth County Multi-Jurisdictional Natural Hazard Mitigation Plan was adopted in 2009 to meet the requirements of the Disaster Mitigation Act (DMA) of 2000. The plan's development was led by the County and was funded through a FEMA planning grant. Monmouth County employed a multi-jurisdictional approach to develop the plan, and every municipality in the County was invited to participate as an equal partner with the County.

The Plan represents the collective efforts of citizens, elected and appointed government officials, business leaders, volunteers of non-profit organizations, and other stakeholders. The Plan identifies natural hazards that could affect the County's jurisdictions, evaluates the risks associated with these hazards, identifies the mitigation actions to lessen the impacts of a disaster on Monmouth County communities, and prioritizes them based on the municipal master plans and other planning documents.

The 2009 Natural Hazard Mitigation Plan measures hazard vulnerability for each of the participating Monmouth County municipalities. Comparing the risk among the natural hazards addressed. The ability to quantify the risk to all these hazards relative to one another helps in a balanced, multi-hazard approach to risk management at each level of governing authority. Identified within the report are the hazards most likely to affect the Township of Neptune including: Extreme Temperatures, Extreme Wind, Hurricane and Tropical Storm, Lightning, Nor'Eastern, Tornado, Winter Storm, Coastal Erosion, Drought, Flood, Storm Surge, Wave Action, Earthquake and Wildfire. Depicted below within **Figure 2**, are the public facilities most vulnerable to these natural hazards.

Figure 2

Exposure of Georeferenced Critical Facility Types by Jurisdiction								
Facility Type by Jurisdiction	Number of Exposed Critical Facilities by Hazard Area							
	Flood (A/AE/V)	Wave Action (VE)	Storm Surge (Cat 1-4)	Coastal Erosion	Dam Failure	Landslide (High)	Wildfire (Low/Mod)	Wildfire (High/Ext)
Total	4	0	17	0	0	4	8	0
Millstone, Township of								
Airports/Ferry Ports	0	0	0	0	0	0	1	0
Schools/Child Care Facilities	0	0	0	0	0	0	1	0
Total	0	0	0	0	0	0	2	0
Monmouth Beach, Borough of								
Emergency Centers/Fire Stations/Police Stations	2	0	2	0	0	2	0	0
Public Works Buildings/Wastewater Treatment Facilities	2	1	2	0	0	1	0	0
Schools/Child Care Facilities	2	0	3	0	0	2	0	0
Total	6	1	7	0	0	5	0	0
Neptune City, Borough of								
Emergency Centers/Fire Stations/Police Stations	0	0	2	0	0	0	0	0
Public Works Buildings/Wastewater Treatment Facilities	1	0	0	0	0	0	0	0
Schools/Child Care Facilities	0	0	2	0	0	0	0	0
Total	1	0	4	0	0	0	0	0
Neptune, Township of								
Emergency Centers/Fire Stations/Police Stations	0	0	3	0	0	0	0	0
Public Works Buildings/Wastewater Treatment Facilities	0	0	0	0	1	0	0	0
Schools/Child Care Facilities	0	0	5	0	1	0	4	0
Senior Care Facilities	1	0	3	0	0	0	0	0
Total	1	0	11	0	2	0	4	0

Additionally, exposure to hazards can be an indicator of vulnerability. Economic exposure can be identified through locally assessed values for improvements

(buildings), and human exposure can be identified by estimating the population exposed to each hazard. This information is especially important for decision-makers to use in planning for evacuation or other public safety related needs. **Figure 3** below provides the Township's economic vulnerability in the event of various natural hazards.

Figure 3

Assessed Building Value At-Risk by Hazard by Jurisdiction									
Jurisdiction	Extreme Temps, Tornado, Hurricane, Extreme Wind, Lightning, Nor'easter, Earthquake, and Winter Storm*	Coastal Erosion	Dam Failure	Drought**	Flood	Storm Surge	Wave Action	Landslide	Wildfire
Manasquan, Borough of	\$394,840,400	\$1,912,100	\$0	Not Available	\$252,936,600	\$335,512,700	\$18,137,700	\$0	\$22,772,300
Marlboro, Township of	\$2,270,927,800	\$0	\$0	Not Available	\$25,648,300	\$0	\$0	\$0	\$913,104,100
Matawan, Borough of	\$280,292,084	\$0	\$0	Not Available	\$4,921,400	\$2,705,450	\$0	\$0	\$23,118,250
Middletown, Township of	\$3,327,619,578	\$39,412,400	\$55,931,500	Not Available	\$184,424,400	\$535,335,800	\$9,083,300	\$152,132,800	\$895,915,700
Millstone, Township of	\$263,436,400	\$0	\$0	Not Available	\$4,618,300	\$0	\$0	\$0	\$239,569,000
Monmouth Beach, Borough of	\$169,824,000	\$22,142,200	\$0	Not Available	\$142,194,000	\$169,824,000	\$16,629,100	\$83,999,700	\$12,107,100
Neptune City, Borough of	\$142,043,700	\$1,719,500	\$0	Not Available	\$18,219,600	\$77,699,900	\$0	\$0	\$13,181,100
Neptune, Township of	\$1,576,460,100	\$8,551,700	\$71,481,100	Not Available	\$83,726,600	\$557,303,400	\$767,800	\$0	\$215,012,500

To remain compliant with the DMA, the Plan must be updated every five years. The County is currently undertaking a comprehensive update of the Plan, with a draft expected to be completed in April 2014. The FEMA approval and jurisdictional adoptions of the updated plan are anticipated thereafter. Neptune Township is actively participating in the Plan's update and has provided progress reports to the County regarding mitigation and resiliency measures undertaken since the Plan's adoption in 2009.

Monmouth County Open Space Plan, 2006

The 2006 Monmouth County Open Space Plan establishes priorities for the land preservation program of the Monmouth County Park System. The goal of the Plan is to permanently preserve public land of County significance to support future regional conservation and County-wide recreational needs. The plan seeks to establish an integrated system of open space that is sufficiently diverse and comprehensive to protect the significant natural and man-made landscapes that have defined Monmouth County in past generations and to provide a wide range of resource-based recreation opportunities for current and future generations.

According to the Monmouth County Open Space Plan, as of 2005, 179.46 acres of Neptune Township was existing open space. The 2006 Plan proposes a target of 153.60 acres of open space for the area for the Township. The Township has a 25.86-acre surplus of dedicated open space when compared with the County's target.

4. Evaluation of Superstorm Sandy's Impact

4.1 Damage to Infrastructure

Of every state in the region, New Jersey suffered the most in terms of power outages from Superstorm Sandy. New Jersey had the largest number of customers without power at the peak, 2.6 million. Neptune Township itself was reported to be without power for fourteen days. Power outages were caused by damaged substations and power plants as well as fallen utility poles. Public damage totaled an excess of \$10 million.

The Storm damaged critical infrastructure throughout the Township. The North Island, South Island and North Riverside Pump Stations suffered almost \$150,000 worth of repairs. Portions of each pump station were removed, replaced and made watertight to prevent failure in future storm events. Electronics within the pump stations were elevated above the 500-year flood elevation.

Additionally, Wesley Lake received damage to the retaining walls and needed replacement. Both the Fletcher and Wesley basins needed de-silting and cleaning of the storm drain systems. The repairs to Fletcher and Wesley Basins totaled about \$1.2 million.

The majority of the parks throughout the town needed tree removal and safety pruning following the Storm. Parks in the Shark River Hills area; however, received more substantial damage. Memorial Park needed over \$100,000 worth of repairs including replacement of the damaged fence, replacement of the playground unit, sidewalk replacement and new landscaping. A large amount of the Ocean Grove Boardwalk was also impacted and needed replacement of boards, railings and lighting. Damages in excess of \$3 million were received by the Boardwalk.

As a result of flooding and high winds from Superstorm Sandy the main Shark River Municipal Marina building, marina support building, and all but one of the docks were completely destroyed. The remnants of the large marina building were torn down and a new building will be constructed and elevated, costing the town approximately \$2.4 million. Repairs to the docks included the removal and resetting of piles, installation

of electricity to the docks and installation of water, dredging of portions of the marina, and construction of new docks and pedestals.

Extensive clean up was needed as nearly fifty boats were tossed throughout the town. **Figures 4 and 5** below show the damage to Shark River Municipal Marina. **Map 1**, taken from Google Earth a week after the Storm, shows an aerial view of the damaged docks and Marina building as well as the boats and debris that were tossed around the surrounding areas.

Figure 4



Figure 5



Map 1

4.2 Damage to Private Property

Like many of the waterfront municipalities affected by Superstorm Sandy, Neptune Township was significantly impacted by the storm surge cause by Sandy. Damages

to private property totaled in excess of \$10,000,000. Sandy-related flooding isolated significant portions of the Shark River Hills, Ocean Grove and North Island from emergency services and stranded many residents in their homes until the floodwaters receded. In addition, the surge carried a significant amount of debris into the Shark River. The debris migration caused physical damage to structures and resulted in tens of thousands of dollars of debris collection and removal costs. Overall, Neptune Township reported a loss to 124 properties, totaling \$5,618,600 in taxable property value reduction. **Figures 6 and 7** below show severe damage done to private property.



Figure 6



Figure 7

The storm surge heavily affected properties in the Shark River Hills neighborhood, although several areas received flood damage. A structure assessment completed within the days following Superstorm Sandy determined that 8 residential structures were considered unsafe and 78 residential structures were considered uninhabitable in Shark River Hills. In addition, 6 residential structures were considered unsafe in Ocean Grove and 4 were considered unsafe and 13 were considered uninhabitable in North Island.

Additionally, within Shark River Hills and Ocean Grove a total of four commercial structures were considered unsafe and two were considered uninhabitable. The full structure assessment including property damage details can be found in **Appendix A**.

4.3 Economic Impact

According to the structure assessment aforementioned in section 4.2, three commercial establishments were considered to be unsafe and two were considered

uninhabitable in the Shark River Hills neighborhood. Two of the unsafe structures included that Shark River Municipal Marina and the Shark River Yacht Club. John's Cracker Barrel, located on Riverside Drive, experienced about 4.5 feet of flooding and was not able to reopen until February of 2013.

Businesses in North Island that were also impacted by flooding include the Headliner Nightclub and Stumpy's Sales and Services. Both businesses were closed for several months following the Storm. In Ocean Grove, 1 commercial building was considered unsafe and 1 was considered uninhabitable. Many other businesses, although not affected by flooding, saw impacts due to road closures along Route 35.

4.4 Community Impact

The U.S. Department of Housing and Urban Development (HUD) requests that jurisdictions across the nation conduct a bi-annual, statistically reliable and unduplicated count of the homeless over the course of one day in the last ten days in January. The jurisdictions in NJ conduct an annual count of the homeless on a voluntary basis and report findings in the *Point in Time Count*.

In January of 2012, before Superstorm Sandy hit, the *Point in Time Count* reported that 650 men, women, and children in Monmouth County were homeless. The largest contributing factor to homelessness in 2012 was "Loss of Job or Inability to Find Work, which affected 45.2 percent of the people surveyed. In January of 2013, however, Monmouth County saw an increase in its homeless population, reporting 916 homeless men, women and children, an increase of 40.1% compared to 2012. The major contributing factor to homelessness in 2013 was "Natural Disaster", affecting 45.6 percent of the people surveyed. This was a drastic increase from the prior year, with only 0.5 percent of the homeless population contributing natural disaster to homelessness.

The 2013 Point in Time Count was conducted nearly three months after Superstorm Sandy impacted the area and, as evidenced by these findings, still an overwhelming number of people remained displaced from their homes. Due to the slow

implementation of State and Federal funding, the displacement of families, homelessness and other similar issues are still in the process of being addressed.

4.5 Vulnerability Assessment

According to the Preliminary Flood Insurance Rate Maps (PFIRMs), included within **Appendix B**, the neighborhoods most susceptible to future flooding include Shark River Hills, North Island and Ocean Grove. These areas sustained the most substantial damage during Superstorm Sandy.

The critical facilities in Neptune Township, including fire departments, shelters, schools, evacuation routes and emergency medical services are located outside of the major flood zones and, in the event of a storm, will not be affected by flooding. However, large portions of residential areas, including all of North Island, are located within flood zones and should therefore be under careful consideration when emergency planning and planning for resiliency projects.

According to the NJ Flood Mapper Program, developed by the Center for Remote Sensing and Spatial Analysis and Rutgers University in partnership with the Jacques Cousteau National Estuarine Research Reserve, sea level rise (SLR) may not pose substantial threats to Neptune Township. SLR will not begin to affect the Township until about 2075 with a 2-foot SLR. By this point, SLR may impact some of the lower-lying roadways and properties of North Island. A 3-foot SLR, expected to occur around 2100, will additionally begin impacting portions of Shark River Hills that are nearest the shoreline.

Land Use Vulnerabilities Exacerbated by Superstorm Sandy

Hurricane Sandy exacerbated the vulnerability of homeowners and business owners located in low-lying areas to the flooded waterways that border and run through Neptune Township. Wesley and Fletcher Lakes were flooded and silted in causing issues for stormwater run-off. Furthermore, the damage to the North Riverside, North Island and South Island pump stations threatened the health of residents by failing to prevent the backflow of raw sewage into flooded Township streets.

It is recommended that Neighborhood Resiliency Plans be prepared for North Island and Shark River Hills. These plans should act as guides and planning tools to further educate residents in these areas on emergency preparedness and resiliency towards flooding.

Community Opportunities Created by Superstorm Sandy

The impacts of Hurricane Sandy have shed light on the areas in which Neptune Township may improve its resiliency in future storm events which include but are not limited to:

- Promoting public awareness of hazard mitigation and resiliency issues;
- Focusing public agencies on community vulnerabilities to hazards such as flooding;
- Encouraging regional solutions to flood- and storm-related impacts;
- Ensuring that future capital projects are designed and constructed to incorporate features that are resilient to storm- and flood-related impacts; and
- Focusing on resiliency when rebuilding damaged facilities.
- Integrating hazard mitigation into Master Plan elements.
- Developing ordinances that are targeted at protecting public and private property from flood hazards.

5. Post-Sandy Recovery Efforts

Since Superstorm Sandy hit the area, Neptune Township has been highly proactive in its recovery efforts including ordinance amendments, public outreach, and infrastructure improvement. The following subsections describe the Township's recovery efforts.

5.1 Ordinance Amendments and Waivers

Ordinance Number 13-11 amended the Land Development Ordinance Volume II, Section 201 entitled "Definitions" and Section 419 entitled "Flood Hazard Regulations." Furthermore, Ordinance Number 13-12 amended Volume I, Chapter XIX of the General Ordinances, entitled "Flood Damage Prevention".

Section 201 was amended to include more specific and informative flood-related definitions to the Land Use Ordinance including: Advisory Base Flood Elevation; Advisory 0.2 Percent Annual Chance Flood Elevation; Advisory Flood Hazard, Area of Special Flood Hazard; Advisory Flood Hazard Map; Advisory Flood Hazard Zone A; Advisory Flood Hazard Zone V; Building Height; Porches in Flood Hazard Areas; Stairs in Flood Hazard Areas; Stairway Landings in Flood Hazard Areas; and Substantial Improvement.

The most substantial amendment to Section 419 was to subsection F concerning permitting. The amendment set stricter requirements when developing within any Area of Special Flood Hazard established by FEMA. Additional changes were made to subsections concerning Areas of Special Flood Hazard, New Construction, Architectural Design, the Historic District and Building Coverage in Special Flood Hazard Areas. The intent of the Section 419 amendment was to improve resiliency of structures within flood prone areas.

Additionally Ordinance 13-12 added greater restrictions on building construction to ensure resiliency for residential, non-residential, manufactured homes and historic district structures within Flood Hazard Areas. Both Ordinances are included within in **Appendix C** of this report.

Shortly after Superstorm Sandy the Township passed a resolution waiving construction permit fees for construction work made necessary by Sandy Damage.

The Township Committee was supportive of the will and desire of the residents to rebuild the Township. The waiver period was subsequently extended until March 28, 2013.

5.2 Public Outreach, Community Resiliency and Preparedness

In the week leading up to Superstorm Sandy, the Township provided warnings and information regarding the Storm via the Township website and the Reverse 911 program. Additionally, all low lying areas were asked to evacuate.

Following the Storm, the Township of Neptune implemented a public outreach program to educate and inform residents on preparation and recovery of major flooding incidents. The Public Outreach Program includes information and procedures that are critical to public safety when substantial flooding may occur. Also included within the Public Outreach Program is important emergency contact information, National Flood Insurance Program details, flood mitigation funding sources and flood protection assistance information. The Township's public outreach programs will earn points towards FEMA's Community Rating System.

The Township's Recovery Action Committee worked to revise the emergency management plan to make evacuation and emergency actions more fluid in the event of future disasters. The Recovery Action Committee also assisted in drafting flood-related ordinances and providing recommendations on base flood elevations.

Both Neptune Township and Monmouth County receive annual emergency management assistance grant funding which requires annual exercises to test and validate their emergency operations plans. In addition, both agencies continually conduct Local Emergency Planning Committee meetings to review and update their emergency operations plans to address new threats and vulnerabilities.

To address those of the population with special needs, the Township of Neptune Office of Emergency Management, in cooperation with the NJ Office of Emergency Management and the NJ Office of Homeland Security and Preparedness, maintains a statewide registry for residents with special needs. It is designed to assist first responders and emergency planners in identifying those residents that may need

assistance in evacuating during an emergency so they may develop the necessary plans. It will also aid emergency planners in the development of shelter plans for those residents with special needs.

5.3 Open Space Preservation

Two parks that received substantial damage from the Storm were Volunteer Park and Memorial Park, both in Shark River Hills. Neptune Township's Environmental Commission developed a program to replant much of Volunteer Park which was destroyed by Superstorm Sandy. The Commission installed plants and shrubs that are adapted to coastal environments, salt tolerant and require little watering once established. The Township also provided a new gazebo and benches. **Figure 8** shows damage to Riverside Park and **Figure 9** depicts the improvements completed by the Environmental Commission. As previously mentioned Memorial Park suffered the most costly amount of damage and needed replacement of fencing, trees and playground equipment. The park was repaired and rededicated in May of 2013.

Figure 8



Figure 9



Additionally the Township is looking to preserve open space through the New Jersey Department of Environmental Protection Coastal Blue Acres (CBA) program in areas where appropriate. The CBA program helps municipalities and counties to acquire lands in coastal areas that have been damaged by storms, that may be prone to storm damage, or that buffer or protect other lands from storm damage, for recreation and conservation purposes. The State has set aside \$9 million for post-storm acquisition of lands that have suffered at least a 50 percent reduction in value as a result of storm damage.

5.4 Participation in FEMA's Community Rating System

Under CRS, a municipality receives discounts on flood insurance premium based on its class rating and its implementation of local mitigation, outreach, and educational activities that go well beyond the minimum NFIP requirements. Premium benefits are just one of the benefits of participation in CRS, but it is more important that these communities are carrying out activities to save lives and reduce property damage. Other benefits include enhanced public safety, reduced property damage and public infrastructure, avoidance of economic disruption and losses, reduction of human suffering, and protection of the environment.

Approximately 4.7 percent of properties and structures in the Township are located in a "flood zone area" of the area that the National Flood Insurance Program defines as a "special flood hazard area" (SFHA). Each class is determined by the amount of credit points earned through the completion of activities within the categories: Public Information, Mapping and Regulations, Flood Damage Reduction and Flood Preparedness. Neptune Township is seeking Class 5 of FEMA's CRS, meaning residents will receive a 25 percent premium reduction within a SFHA and a 10 percent premium reduction within a non-SFHA.

5.5 Economic Recovery

Small Business Administration

In the months following Hurricane Sandy, the Small Business Administration (SBA) issued loans to homes and businesses in New Jersey to aid in their recovery and reconstruction efforts. NJ.com has compiled data from the SBA and made it available online.

In August, 2013 the SBA held a Recovery and Matchmaking Summit to educate and connect small businesses to commercial buyers from the private sector and federal, state and local governments. The goal of this program is to help small businesses in the region to get back on their feet and compete for opportunities.

Strong NJ Business Grant Program

With a focus on the most impacted communities throughout the state, New Jersey is offering aid through grants and forgivable loans to New Jersey small businesses or

non-profit organizations that sustained a minimum of \$5,000 in physical damage from Superstorm Sandy. Eligible small businesses and non-profits may apply for grants and forgivable loans of up to \$50,000 per impacted location. If an entity has multiple locations in New Jersey incorporated under a single federal tax identification or employer identification (EIN) number, it may receive up to \$250,000 per entity and it may use one application to seek funds for all incorporated, impacted locations.

Façade Improvement Program

The Façade Improvement Grant and Loan Program provides façade improvement/rehabilitation assistance to Neptune Township businesses which: promote physical and economic revitalization; create aesthetically pleasing shopping environment; and satisfy the eligibility criteria determined by the Township. Information regarding the program is provided to businesses via the Township website, community meetings and a mass email.

The Façade Improvement Grant and Loan Program offers the following assistance opportunities:

- a. One-to-one grant/private investment financing for eligible projects. Each project considered for funding must have a leverage ratio or not less than \$1.00 of private sector funding for every \$1.00 of grant funding, with the exception of businesses located on West Lake Avenue where funding must have a leverage ratio of not less than \$1.00 of private sector funding for every \$2.00 of grant funding. Maximum grant funding available shall be \$5,000.00 per store-front.
- b. Three-to-one loan/private investment financing for eligible projects. Each project considered for funding must have a leverage ratio of not less than \$1.00 of private sector funding for every \$3.00 of loan funding. Loans will be payable in quarterly, semi-annual or annual installments at a rate of 50% of the prime lending rate as determined by the Township's primary banking institution at the time of application approval. The maximum loan amount shall be \$5,000.00 per store-front;
- c. Combination grant/loan financing with a maximum of \$10,000.00 per

store-front. Maximum loan term shall be five years. Loans shall be considered in default 60 days after due date of any payment.

5.6 State and Federal Homeowner Recovery Programs

FEMA runs a Hazard Mitigation Grant Program (HMGP) which is a \$100 million reimbursement grant program set up to assist homeowners in elevating their homes after Hurricane Sandy. The HMGP elevation program provides up to \$30,000 of reimbursement for eligible homeowners to elevate their primary single-family residences. The program is being paid for by FEMA funds. The application period for homeowners closed on September 15, 2013.

At the State level, the Reconstruction, Rehabilitation, Elevation and Mitigation (RREM) Program and Homeowner Resettlement Program are the primary CDGB-DR funded recovery programs for homeowners. These programs are intended to “fill the gap” between the cost of Sandy-related repairs and other funds received by the owner. The State has allocated \$710 million and \$215 million of the first wave of CDGB-DR funds to support these programs, respectively. However, **Figures 10 and 11** below show that the unmet needs for the RREM Program remain substantial.

Figure 10

Table 2-2: Summary of Homeowner Program Allocations and Existing Unserved Needs						
Program	Total Allocation ^a	Total Number of Eligible Households	Number of Households Receiving Grant Award	Average Allocation per Unit	Estimated Program Need for Eligible Households (\$) ^b	Excess / (Shortfall)
RREM	\$710,000,000	12,389	5,124	\$106,000 ^c	\$1,313,234,000	\$(603,234,000)
Homeowner Resettlement	\$215,000,000	18,335	16,791	\$10,000	\$183,350,000	\$0

^a This Total Allocation amount reflects the shift of funds approved in Action Plan Amendment 4.
^b These figures exclude program delivery costs.
^c This figure is based on the average RREM grant awards that were signed as of January 13, 2014, and reflects the impact of private insurance, U.S. Small Business Administration (SBA) loans and other funding sources that are accounted for in the State's duplication of benefits analyses performed to ensure that CDBG-DR funds only are provided to address unmet needs. Notably, as of September 12, 2013, SBA disbursed more than \$122 million in loans across 5,100 homeowners and renters.

Figure 11

Program	Total Allocation	Projected Number of Households Assisted	Number of Households Requesting Assistance	Average Cost of Elevation	Need of Households Requesting Assistance (\$)	Excess / (Shortfall)

^a Costs of elevation vary significantly by property, depending on such factors as the size of the home to be elevated and the footprint of the home. A \$65,000 elevation cost estimate is used because it is an approximate average of what an elevation in New Jersey might be expected to cost.

^b This figure excludes program delivery costs.

The New Jersey standard is to elevate residential structures a minimum of one foot higher than the Advisory Base Flood Elevation (ABFE). This reduces the risk of damage to the property and its contents in the event of major flooding. It may also provide a significant reduction in flood insurance premiums compared to a structure that is not elevated.

In order to alleviate some of the unmet need, **Figure 12** shows the second tranche of CDBG-DR funding has allocated the following for these programs.

Figure 12

Category	Allocation Level		Program	Allocation Level	LMI Estimate
	Total Amount	Total Estimated LMI Amount			
Homeowner Assistance Programs	\$490,000,000	\$220,000,000	Reconstruction, Rehabilitation, Elevation & Mitigation	\$390,000,000	50%
			Blue Acres Buyout Program	\$100,000,000	25%
Rental Housing and Renter Programs	\$245,000,000	\$230,000,000	Fund for Restoration of Multi-Family Housing	\$200,000,000	95%
			Neighborhood Enhancement Program	\$20,000,000	75%
			Sandy Special Needs Housing Fund	\$25,000,000	100%
Economic Development	\$5,000,000	\$750,000	Tourism Marketing Campaign	\$5,000,000	15%
Infrastructure Programs	\$535,000,000	\$218,500,000	Flood Hazard Risk Reduction Program	\$100,000,000	25%
			New Jersey Energy Resilience Bank	\$210,000,000	60%
			Non-Federal Cost Shares (Match)	\$225,000,000	30%
Support for Local Government Entities	\$105,000,000	\$19,250,000	Essential Public Services	\$90,000,000	15%
			Unsafe Structures Demolition Program	\$10,000,000	50%
			Zoning/Code Enforcement	\$5,000,000	15%
TOTAL	\$1,380,000,000	\$688,500,000	TOTAL FUNDED PROGRAMS	\$1,380,000,000	50%
Planning, Oversight, and Monitoring	\$83,000,000	N/A	Planning Grants	\$10,000,000	N/A
			Administration	\$73,000,000	N/A
TOTAL	\$1,463,000,000				

5.7 Monmouth County Long Term Recovery Group

The Monmouth County Long Term Recovery Group's (MCLTRG) goal is to assist all county residents in recovery from disasters by addressing and prioritizing unmet needs. The Group's priorities include the following:

- Individuals and families who need assistance to maintain or obtain safe, sanitary and secure housing, including: – Those who are not served, or who are underserved, by other existing aid programs, including those who are ineligible for FEMA.
 - Those who are experiencing economic hardship in pursuing a plan for recovery.
 - Those who are isolated or have difficulty accessing services.
 - Those who have begun the recovery process but have encountered a setback and need assistance with their continued recovery.
 - Those who need assistance in order to prevent deterioration in their continued recovery.
- Landlords of owner-occupied residential rental property of four units or less when such assistance will provide safe, sanitary, and secure housing that will be affordable and permanent for the owner-occupant and his or her residential tenants.
- Landlords of owner-occupied residential rental property of three units or less when such assistance will provide safe, sanitary, and secure housing that will be affordable and permanent for residential tenants.

In October of 2013, the American Red Cross awarded a grant to the MCLTRG in the amount of \$1.1 million. With this grant, the MCLTRG plans to prioritize 150 Monmouth County residents who have exhausted other available resources, but still face unmet needs in terms of home repair and rebuilding assistance. As of August 31, 2013, the Red Cross had received \$308 million in donations for its Hurricane Sandy emergency relief and recovery efforts, with \$272 million spent or committed.

5.8 Updates to FEMA Flood Insurance Rate Maps

On February 3, 2014 FEMA released Preliminary Flood Insurance Rate Maps (FIRMs) for Middlesex and Monmouth Counties that reflect the latest refinements to

the ongoing analysis of flood hazards. This release is the next step in the coastal Flood Insurance Study update. The Preliminary FIRMs replace the Preliminary Work Maps for Middlesex and Monmouth Counties that were released in June/July of 2013 as an interim product.

The new maps are important, as FEMA, the New Jersey Department of Environmental Protection (NJDEP) and Middlesex and Monmouth County communities continue to work in partnership to support resilient communities, and to avoid or reduce the loss of life and property, and the financial impacts of flooding. The Preliminary FIRMs reflect the same coastal flood risks as the Preliminary Work Maps and have now been updated to include riverine flooding. The updated maps are available through FEMA's website.

5.9 Community Assistance

During the events of Superstorm Sandy, the Township established emergency shelters at the Neptune Township High School and Neptune Township Senior Center. The senior center served as a shelter for almost two months after the Storm. Hotels in the area provided housing for FEMA personnel who were assisting in recovery efforts.

In the aftermath of the Storm, Neptune Township provided a mobile town center with construction officials and rental assistance in order to respond quickly to recovery needs. The Construction Department provided door-to-door inspections for residents as well. For citizens who were unable to leave their homes, Meals on Wheels and Interfaith Neighbors provided services. Additionally, donations for affected families were received from all over the United States. Partnering with a local moving company, the Township set up a warehouse donation center and distribution point. The distribution point was open to the public on a daily basis and ran from the first week of November until the all donations were expended in February of 2013.

The New Jersey Department of Human Services provides the Sandy Homeowner/Renter Assistance Program (SHRAP) as a temporary relief program to assist individuals and families experiencing a housing crisis resulting from Superstorm Sandy. The goals of the SHRAP program are to provide housing stability by:

- Maintaining temporary housing while primary residence is repaired/rebuilt;
- Maintaining a primary residence to return to when repair/reconstruction is completed; and
- Ensuring affected households have items deemed essential for health and safety upon returning to primary residence.

Additionally, the Monmouth County Division of Social Services provides a number of services for people suffering from homelessness including: intake/screening, placement services, liaison services to transitional housing sites/shelters and rooming/boarded homes, housing search assistance and Temporary Rental Assistance. The County Division of Social Services also operates a 24-Hour Homeless Emergency Phone Line to provide an after-hours number for homeless housing-related emergencies.

5.10 Affordable Housing

The Township continues to implement the policies and goals outlined within the Housing and Fair Share Element of the Master Plan in order to ensure a diverse housing stock for all residents affected by the Storm. The programs and initiatives listed within Section 5.9 of this Report are available to families of low- and moderate-income as well.

5.11 Resiliency and Sustainability

Sustainability should provide for, encourage, and promote the efficient use of natural resources and the installation and usage of renewable energy systems; consider the impact 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.

Sustainable practice and design has the ability to promote resiliency by securing safety from fire, flood, panic, and other natural man-made disasters. The Township has been proactive in determining ways to increase the resiliency of its shore through techniques such as “living shorelines.” Infrastructure resiliency has been partially addressed through the amendment of flood control ordinances and elevation

of flood prone roadways, and is proposed to be more comprehensively addressed through the implementation of the recommendations contained herein.

6. RECOMMENDATIONS

Based on the analysis of relevant planning documents, reports and ordinances in addition to recovery work currently underway throughout the Township, the following actions are recommended.

6.1 General

- a. Pursue Federal, State and County grants and grants from other entities to fund recovery and resiliency projects and initiatives.
- b. Leverage the Monmouth County Long Term Recovery Group and other organizations to assist in the recovery effort. Maintain open communications with these entities in order to facilitate the recovery process.
- c. Pursue PSPAG funding from the NJDCA for design standards, ordinances, master plan amendments and related items as described in more detail in the subsections below.

6.2 Zoning Ordinance, Codes and Permitting Changes

Develop ordinances requiring securing of floating docks, gangways, etc.

- a. Supplement Flood Prevention Ordinance or add regulations to Township Code requiring removal or securing of boats, floating docks, gangways, etc. from Shark River within a specified period from the issuance of an order from Emergency Management personnel. Establish penalties for owners of floating objects removed by the Township due to compliance issues in order to prevent property damage during storm events.
- b. Amend Flood Prevention Ordinance or add regulations to Township Code prohibiting the construction of occupied structures seaward of the mean high water line or on piers or platforms except for essential structures for “functionally dependent uses” such as marinas or boatyards.

Design Standards (integrating elevated structures into community design character)

- a. Develop design standards to address the visual impact of mitigation measures such as elevating bulkheads, elevating buildings on foundations or pilings, etc. Such design standards might include requirements for skirting exposed pilings, parking under the lowest habitable floor, using exterior

decking to stagger stairways to elevated first floor levels, etc. Pursue PSPAG funding for this project.

Generators

- a. An ordinance should be provided to set standards for the proper installation of permanent standby generators. At a minimum these regulations should include: permitted locations, setbacks, noise restrictions and screening of generators.

6.3 Community Development

Adopt and Update Elements of the Master Plan

- a. It is recommended that the Township look to update the Community Facilities Element and Green Buildings and Environmental Sustainability Element of the Master Plan to include a Community Resiliency section that reviews the Land Use Plan Element and development standards against the vulnerability issues outlined in this SRPR. Pursue PSPAG funding from the NJDCA for this project.
- b. It is recommended that the Township update the Parks, Recreation & Open Space Element of the Master Plan. Pursue PSPAG funding from the NJDCA for this project.
- c. Prepare a Municipal Public Access Plan to enhance public access to tidal waters in a comprehensive manner.

Neighborhood Plans

- a. Develop specific strategic plans for neighborhoods most severely impacted by Sandy, including Shark River Hills and North Island. Pursue PSPAG funding from the NJDCA for this project.

Streetscape Plans

- a. Develop streetscape plans for Route 35, Westlake Avenue and Broadway. Pursue PSPAG funding from the NJDCA for this project.

Environmental Resource Inventory

- a. Update the Environmental Resource Inventory as a tool to avoid future problems such as flooding and degradation of water quality, and the associated mitigation costs. Pursue PSPAG funding from the NJDCA for this project.

Housing Authority

- a. Pursue funding to upgrade Housing Authority facilities and expand the non-profit reach.

Affordable Housing

- a. Continue to implement the Housing Element/Fair Share Plan and maintain compliance with current and future Affordable Housing regulations.

Housing Displacement

- a. Encourage residents to take advantage of State, County and Local programs that aid in home rebuilding and supporting distressed households. Make this information readily available to residents via links on the Township website.
- b. Work with Federal, State and County to improve and streamline the process of returning residents to their homes following major natural disasters.

6.4 Economic Development*Create a small business incubator and assistance program*

- a. Continue to monitor recovery and resiliency opportunities for Township businesses.
- b. Provide extensive information and administrative support relative to existing small business assistance programs.
- c. Study the need for supplemental, locally administered programs of direct assistance to support the unique needs of emerging small businesses.
- d. Amend the Township's Economic Development Element to include post-disaster recovery plans and recommendations for small businesses.
- e. Pursue PSPAG funding from the NJDCA for these projects.

6.5 Preparedness*Outreach and Education*

- a. Continue to monitor recovery and resiliency education and training opportunities for Township residents, business owners and municipal staff.
- b. Remain up to date on disaster preparedness protocol and policies.
- c. Maintain open communication with residents and business owners regarding aforementioned information via Township website, periodic e-mailings, social media, hand outs, etc.
- d. Provide a public presentation of the Emergency Operations Plan Update.

- e. Pursue Post-Sandy Planning Recovery Assistance Grant from the NJDCA for these projects.

6.6 Resiliency and Sustainability

Seek alternate “green” methods of infrastructure

- a. Encourage the implementation of Best Management Practices (BMP) such as grassed swales, riparian buffers and infiltration trenches where appropriate to reduce stormwater run-off during large flooding events.

Improve Resiliency

- a. Encourage critical businesses such as supermarkets, gas stations and medical centers, to obtain emergency power building systems that can continue to operate should the power grid fail. This may include alternative energy such as solar, micro-grid and geothermal.
- b. Evaluate the possibility of provisions requiring critical facilities, such as gas stations, shelters and municipal offices, to install back up generators.

6.7 Infrastructure

Develop a Capital Improvement Plan focused on Recovery and Mitigation

- a. Develop a five year plan for capital projects that will focus municipal capital investment on public facilities, fleets and equipment to build community recovery and resiliency. Pursue Post-Sandy Planning Recovery Assistance Grant from the NJDCA for this project.

6.8 Action Plan for Recommendations

Figure 13 on the following page will serve as a guide to establish tasks, costs and implementation dates of the aforementioned recommendations. Note that the timeframe dependent on funding through PSPAG program from either first of second tranche of funding.

Figure 13: Action Plan for Recommendations

Project	Major Tasks	Estimated Cost	Potential Funding Sources	Estimated Implementation Dates	Estimated Completion Dates *
Zoning Ordinance, Codes and Permitting Changes					
Develop Ordinances	Prepare and adopt ordinances	\$20,000.00	PSPAG	September 2014	April 2015
Develop Design Standards	Prepare and adopt standards	\$50,000.00	PSPAG	September 2014	April 2015
Community Development					
Update Community Facilities Master Plan Element	Public input, plan preparation, plan adoption	\$12,000.00	PSPAG, Sustainable Jersey	October 2014	March 2015
Update Parks and Recreation Element of Master Plan	Plan update, plan adoption	\$10,000	PSPAG	October 2014	June 2015
Shark River Hills Neighborhood Plan	Public input, plan preparation, plan adoption	\$30,000.00	PSPAG		
North Island Neighborhood Plan	Public input, plan preparation, plan adoption	\$50,000.00	PSPAG		
Update Environmental Resource Inventory	Mapping, plan preparation, plan adoption	\$14,000.00	PSPAG, ANJEC, Sustainable Jersey	January 2015	March 2015
Affordable Housing	Maintain Compliance	-	Affordable Housing Trust Fund	Ongoing	Ongoing
Housing Displacement	Continue to work with government and other entities to address housing needs	-	-	Ongoing	Ongoing
Economic Development					
Amendment to Economic Development Element	Plan preparation and adoption	\$6,000.00	PSPAG	November 2014	January 2015
Develop Small Business Assistance Programs	Monitor opportunities for small businesses	\$15,000.00	NJEDA	January 2015	March 2015
Preparedness					
Education and Outreach	Maintain and Update Township Website with latest preparedness information	\$10,000.00	Sustainable Jersey	Ongoing	Ongoing
Resiliency and Sustainability					
Municipal Public Access Plan	Public input, plan preparation, plan adoption	\$15,000.00	PSPAG	August 2014	March 2015
Infrastructure					
Capital Improvement Plan	Prepare and adopt Plan	\$30,000.00	PSPAG	January 2015	June 2015

6.10 Additional Projects

In addition to the recommendations listed above, the Township of Neptune is also seeking other sources of funding for the following projects.

- Fletcher basin bulkhead elevation and repair;
- Wesley Basin retaining wall replacement of approximately 1,000 feet;
- Retro-fit Municipal Marina bulkheading;
- Improve Ocean Grove Fishing Pier and Shark River Basin with weather warning systems and tide gauges;
- Flood-proofing eight of the Township's pump stations;
- Acquisition of flood prone properties from willing sellers, without the use of eminent domain;
- Construction of an emergency safe room near or at the public works department;
and
- Strategic purchase for wetlands migration.

7. CONCLUSION

As Neptune Township recovers and rebuilds after Superstorm Sandy, steps must be taken to ensure that impacts of future disasters will be alleviated. Through the help of available Federal, State and County programs, Neptune Township has many viable resources to continue moving forward. The recommendations outlined in this Strategic Recovery Planning Report will aid the Township in becoming more resilient to future natural disasters and in expediting recovery.

Appendices

Appendix A

**2012 Structure Assessment
Neptune Township**

STRUCTURE ASSESSMENT

ADDRESS	DATE	STATUS	STATUS UPDATES	TYPE	NOTES
		SHARK RIVER			
217 S RIVERSIDE	10/31/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	LESS THEN 1' FIRST FLOOR 7:00 AM TO 11 PM STAYED UPSTAIRS
221 S RIVERSIDE	10/31/2012	UNSAFE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	STRUCTURAL DAMAGE/ 2' + FIRST FLOOR 3 1/2' IN GARAGE
223 S RIVERSIDE	10/31/2012	UNSAFE	UNSAFE 11/2/12	SINGLE FAMILY	FRONT OFF FRONT OF HOUSE
S RIVERSIDE CRACKER BARR	10/31/2012	UNSAFE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	COMMERCIAL	FOUNDATION DAMAGE/ EAST SIDE OF FOUNDATION AND (SOUTH) STRUCTURE DAMAGE/ 4' OF WATER
137 S RIVERSIDE MARINA	10/31/2012	UNSAFE		COMMERCIAL	POSTED UNSAFE/ WEST CORNER BLOCK WALL DAMAGE TO / FRONT
365 S RIVERSIDE	10/31/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	WALLS/FRONT SHEATHING
360 S RIVERSIDE YACHT CLUB	10/30/2012	UNSAFE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	COMMERCIAL	SOUTH PORTION UNSAFE/ PLAZA TREE IN ROAD/LARGE BRANCH
CLINTON PL VALLEY	10/31/2012				WIRES AND TREE IN ROAD/LOW WIRES - TELCO/ TREE DOWN PROSPECT - VALLEY BLOCKING ROAD
110 HIGHLAND	10/30/2012			SINGLE FAMILY	DECK LIFTED ON REAR
100 FAIRVIEW	10/30/2012	UNSAFE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	REAR ADDITION STRUCTURAL DAMAGE/ UNSAFE REAR OF STRUCTURE
102 FAIRVIEW	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
105 FAIRVIEW	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
106 FAIRVIEW	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
107 FAIRVIEW	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
110 FAIRVIEW	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
113 FAIRVIEW	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
114 FAIRVIEW	10/31/2012	UNSAFE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
115 FAIRVIEW	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
119 FAIRVIEW	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
219 VALLEY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
211 VALLEY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
205 VALLEY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
228 VALLEY	10/30/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	5' FIRST FLOOR
232 VALLEY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	1 1/2' WATER
234 VALLEY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	1 1/2' WATER
231 VALLEY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	1 1/2' WATER/ CONTRACTOR CAME IN FOR APPLICATIONS/ 609-693-2040
220 VALLEY	10/30/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	1' 1/2 FEET OF WATER ON BOTTOM FLOOR
222 VALLEY	10/30/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	2' IN GARAGE ONLY
502 VALLEY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	TREE INTO HOUSE
230 VALLEY	10/30/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	3' TO 4' IN BASEMENT
27 S RIVERSIDE	10/31/2012	UNINHABITABLE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	COMMERCIAL	
507 S RIVERSIDE	10/30/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	15" BASEMENT
441 S RIVERSIDE	10/30/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	12" FIRST FLOOR ONLY MONDAY NIGHT
500 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	1 1/2' WATER IN FLOOD HVAC
502 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	1 1/2' WATER
361 S RIVERSIDE	10/30/2012			SINGLE FAMILY	12" MONDAY 7:00PM TO 10:00PM
449 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
445 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	RAYMOND HEYSER OWNER & CONTRACTOR GACE APPLICATIONS 11/3/112 (BILL)
415 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
403 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	1 1/2' WATER. MET OWNER ON 11/3/12 GAVE APPLICATION DOMINIC & SHERIE MAZZOCCHI 921-9757 (BILL)
401 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	18" OF WATER ADDITION 12 YEARS AGO PLUS BRICK FACE GAVE APPLICATIONS (BILL)
377 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
373 S RIVERSIDE	10/31/2012	UNSAFE	SAME	SINGLE FAMILY	GARAGE ONLY/GARAGE APPEARS TO HAVE BEEN HIT BY FLOATING CAR
373 S RIVERSIDE	10/31/2012	UNINHABITABLE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	STRUCTURAL DAMAGE
365 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
341 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
331 S RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
231 S RIVERSIDE	10/30/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	4' + GARAGE, 3' FIRST FLOOR / BAD
225 S RIVERSIDE	10/30/2012	UNINHABITABLE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	2 1/2' FIRST FLOOR = RECEED BY 3:00 AM, WAS NOT HOME LEFT AT 3:00 PM MONDAY CAME BACK AT 3:00AM TUESDAY MORNING /BAD
369 S RIVERSIDE	11/1/2012				
335 S RIVERSIDE	11/16/2012		FLOOD DAMAGE - LESS THEN 25%		
102 N RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
104 N RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
106 N RIVERSIDE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
200 N RIVERSIDE	11/3/2012		FLOOD DAMAGE - LESS THEN 25%		
122 CLINTON PLACE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	WATER DAMAGE
141 THE PLAZA	10/30/2012			SINGLE FAMILY	NO WATER
110 VALLEY	10/30/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	3' IN BASEMENT
122 MILFORD	10/30/2012			SINGLE FAMILY	NO WATER
106 MILFORD	10/30/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	4' = 8:00PM IN HOUSE - 12" FIRST FLOOR / 12:00 PM BEGIN RECEEDING/BAD
105 MILFORD	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
104 MILFORD	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
103 MILFORD	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
102 MILFORD	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
114 BEVERLY	10/30/2012	UNSAFE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	STRUCTURE SEPERATED FROM WALL IN FRONT/FRONT WALL NO LONGER SECURE TO FOUNDATION
114 BEVERLY	10/31/2012	UNINHABITABLE	11/8/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	STRUCTURAL DAMAGE FRONT OF STEPS
116 BEVERLY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	ENTIRE FIRST FLOOR WATER DAMAGE / 732-865-1492 PHIL ERBE
118 BEVERLY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
108 BEVERLY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
106 BEVERLY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
102 BEVERLY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
104 BEVERLY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
110 BEVERLY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
28 EAST END AVE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	GARAGE 40" / FIRST FLOOR =22", BEGAN 8:30 PM
25 SYLVAN	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	1 1/2' WATER
29 SYLVAN	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	1 1/2' WATER

STRUCTURE ASSESSMENT

1 RIVERVIEW	10/31/2012	UNINHABITABLE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	
102 MELROSE	10/31/2012	UNSAFE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	EASTSIDE DAMAGE
103 MELROSE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
104MELROSE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
107MELROSE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
109 MELROSE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
112 MELROSE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
113 MELROSE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
119MELROSE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
114 HILLCREST	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
119HILLCREST	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
111 HILLCREST	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
109 HILLCREST	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
108 HILLCREST	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
106 HILLCREST	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
107 HILLCREST	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
108 HILLCREST	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
114 HIGHLAND	10/31/2012			SINGLE FAMILY	
113 HIGHLAND	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
110 HIGHLAND	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
109 HIGHLAND	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	3' OF WATER GAVE APPLICATIONS (BILL)
108 HIGHLAND	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
107 HIGHLAND	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
103 HIGHLAND	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
104 HIGHLAND	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	
102 HIGHLAND	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	4' OF WATER GAVE APPLICATIONS (BILL)
328 HIGHLAND	10/31/2012				
120 IVINS	10/31/2012			SINGLE FAMILY	TREE HIT HOUSE DECK 8" RAIL RUINED & A/C UNIT
117 MC DERMIT	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	18" OF WATER
413 HELEN	10/31/2012	UNSAFE		SINGLE FAMILY	
106 IVINS	1/9/2012			SINGLE FAMILY	HOUSE SHIFTED OFF FOUNDATION, FOUNDATION CRACKS, DESTROYED FLOOR JOIST, FURNACE WATER LOGGED, WATER HEATER SUBMERGED
102 BENNETT	11/19/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	3 1/2' WATERS
		OCEAN GROVE			
2 SURF	10/31/2012			SINGLE FAMILY	NO WATER / GUY WITH FISH TANK
97 INSKIP	10/31/2012			SINGLE FAMILY	CRAWL SPACE ONLY/NO FIRST FLOOR
99 INSKIP	10/31/2012			SINGLE FAMILY	2' IN BASEMENT
83 FLETCHER	10/31/2012			SINGLE FAMILY	6' UP SIDING = TO FIRST FLOOR
57 STOCKTON	10/31/2012	UNSAFE	CONSTRUCTION PERMIT ISSUED	SINGLE FAMILY	4' IN BASEMENT = FRONT FOUNDATION GONE
61 STOCKTON	10/31/2012	UNSAFE		SINGLE FAMILY	FONDATION COLLAPSED/FRONT OF FOUNDATION BLOWN OUT
67 STOCKTON	10/31/2012	UNSAFE		SINGLE FAMILY	TREE
51 FRANKLIN	10/31/2012			SINGLE FAMILY	NO WATER = NO BASEMENT
22 WEBB	10/31/2012			SINGLE FAMILY	ABOUT 3' IN BASEMENT
20 ABBOTT	10/31/2012			SINGLE FAMILY	ABOUT 3' IN BASEMENT
GANNON	10/31/2012			SINGLE FAMILY	RUSHING WATER/ ABOUT 2' DEEP
55 COOKMAN	10/31/2012			SINGLE FAMILY	NO WATER = ABOUT 1' DEEP =RUSHING
101 CENTRAL	10/31/2012			SINGLE FAMILY	5" IN BASEMENT
103 CENTRAL	10/31/2012			SINGLE FAMILY	2' IN BASEMENT
4 BOARDWALK	10/31/2012	UNSAFE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	COMMERCIAL	UNSAFE STRUCTURE/BACK OF BUILDING GONE
121 PILGRAM PATHWAY	10/31/2012	UNSAFE			
14 OCEAN AVE	10/31/2012	UNSAFE			
121 PILGRAM PATHWAY	10/31/2012	UNSAFE	SAME 11/1/12	SINGLE FAMILY	FOUNDATION COLLAPSED
		CONCOURSE			
21 ALBANY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	ROOF-LARGE SECTION TORN OFF INTERIOR DAMAGE, SHEETROCK, ETC.
22 ALBANY	10/31/2012			SINGLE FAMILY	WATER IN FURNACE
23 ALBANY	10/31/2012			SINGLE FAMILY	2' OF WATER IN HOUSE
27 ALBANY	10/31/2012			SINGLE FAMILY	4' WATER IN GARAGE/ BASEMENT FULL
28 ALBANY	10/31/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	5" WATER IN HOUSE/ CRAWL SPACE FURNACE & A/C UNIT
30 ALBANY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	6' BASEMENT - NO FIRST FLOOR
32 ALBANY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	6' BASEMENT - NO FIRST FLOOR/ JAMES DOWNING 732-208-7960
35 ALBANY	10/31/2012	UNSAFE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	COLLAPSE, REAR RIGHT FOUNDATION
37 ALBANY	10/31/2012			SINGLE FAMILY	WATER IN BASEMENT
39 ALBANY	10/31/2012	UNSAFE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	FOUNDATION CAVED IN, WATER STILL RUNNING IN BASEMENT, FIREMAN TOLD HIM TO SHUT IT OFF/DAUGHTER SYDNEY 996-8133
40 ALBANY	10/31/2012	UNSAFE	11/08/12 SUBSTANTIAL DAMAGE ASSESSMENT COMPLETE	SINGLE FAMILY	FOUNDATION CAVED IN, NO OCCUPANT
41 ALBANY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	18" OF WATER 1ST FLOOR
31 RILEY	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	18" OF WATER 1ST FLOOR
1207 RT 35(STUMPY)	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	COMMERCIAL	4' WATER IN STUMPY'S, BOATS FLOATING, ATV, ALL STOCK INVENTORY UNDER WATER/ JOHN WEHRLE 904-0314
12 WATERVIEW	10/31/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	3' TO TOP OF CRAWL
13 WATERVIEW	10/31/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	3' TO TOP OF CRAWL, UNDER INSULATION GARAGE 12"
14 WATERVIEW	10/31/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	3' TO TOP OF CRAWL
15 WATERVIEW	10/31/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	TOP OF CRAWL UNDER INSULATION GARAGE 1"
16 WATERVIEW	10/31/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	16"OF WATER IN HOUSE
18 WATERVIEW	10/31/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	4' TO TOP OF CRAWL, INSULATION SOAKED A/C UNDERWATER
19 WATERVIEW	10/31/2012		FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	4' TO TOP OF CRAWL, INSULATION SOAKED A/C UNDERWATER
20 WATERVIEW	10/31/2012		FLOOD DAMAGE - LESS THEN 25%		
35 WATERVIEW	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	GARAGE ONLY
36 WATERVIEW	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	CRAWL SPACE, 12" FIRST FLOOR/ 2' IN FIRST FLOOR, 4" IN GARAGE
120 S CONCOURSE	10/31/2012	UNINHABITABLE	FLOOD DAMAGE - LESS THEN 25%	SINGLE FAMILY	REAR GARAGE = 3'

Appendix B

**Neighborhood Preliminary Flood Insurance Rate
Maps**

Flood Prone Areas: Shark River Hills



TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY
NEW JERSEY



Legend

-  Schools
-  Fire Department
-  EMS

Flood Zones

-  AE
-  AO
-  Open Water
-  Shaded X
-  Unshaded X
-  VE

0 187.5 375 750 1,125 1,500
Feet



Sources: ESRI, NJDEP, FEMA

Flood Prone Areas: Ocean Grove

TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY
NEW JERSEY



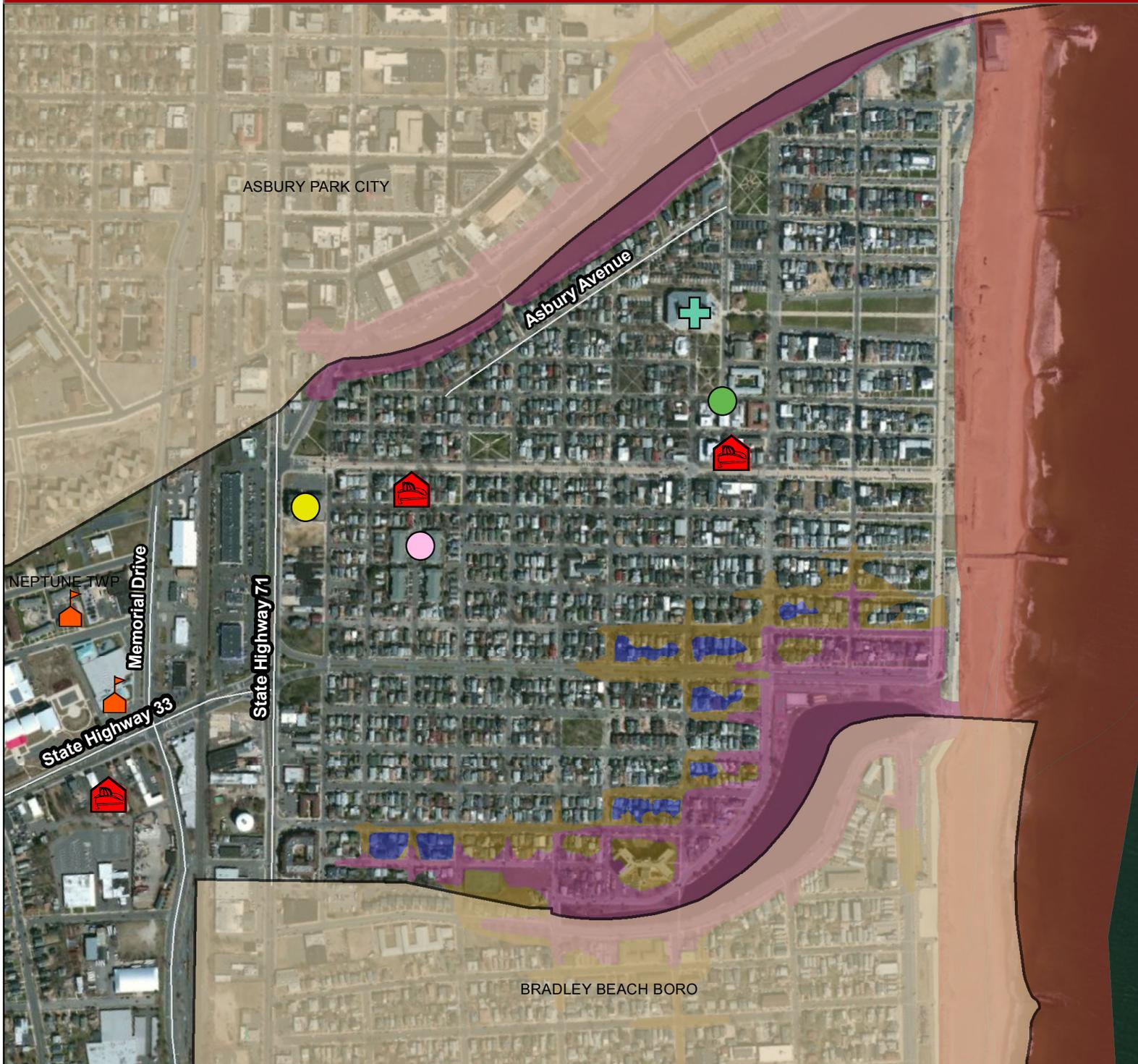
Legend

- Schools
- Fire Department
- EMS
- Ocean Grove Auditorium
- Jersey Shore Arts Center
- The Youth Temple

Flood Zones

- AE
- AO
- Open Water
- Shaded X
- Unshaded X
- VE

0 125 250 500 750 1,000
Feet



Sources: ESRI, NJDEP, FEMA

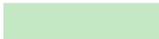
Flood Prone Areas: North Island

TOWNSHIP OF NEPTUNE
MONMOUTH COUNTY
NEW JERSEY



Legend

Flood Zones

-  AE
-  AO
-  Open Water
-  Shaded X
-  Unshaded X
-  VE

0 115 230 460 690 920
Feet



Sources: ESRI, NJDEP, FEMA



Appendix C

**“Flood Hazard Regulations” & “Flood Damage
Prevention” Ordinance Amendments**

ORDINANCE NO. 13-11

AN ORDINANCE AMENDING LAND DEVELOPMENT
ORDINANCE VOLUME II, SECTION 201 ENTITLED
"DEFINITIONS" AND SECTION 419 ENTITLED "FLOOD
HAZARD REGULATIONS"

BE IT ORDAINED by the Township of Neptune of the County of Monmouth in the State of New Jersey that the Land Development Ordinance, Volume II, Section 201, entitled "Definitions" and Section 419 entitled "Flood Hazard Regulations" shall be amended as follows:

§201 DEFINITIONS.

Advisory Base Flood Elevation (ABFE). The elevation shown on a community's Advisory Flood Hazard Map that indicates the advisory stillwater elevation plus wave effect (ABFE = SWEL + wave effect) resulting from a flood that has a 1 percent (1%) or greater chance of being equaled or exceeded in any given year. (100 Year Flood Event)

Advisory 0.2 Percent (0.2%) Annual Chance Flood Elevation (AACFE) (500 Year Flood Event) . The coastal water service elevation of a flood having a 0.2 percent (0.2%) annual chance of being equaled or exceeded in any given year. It is expressed in feet referenced to the North American Vertical Datum of 1988 (NAVD 88).

Advisory Flood Hazard Area (AFHA)/Area of Special Flood Hazard (ASFH). The land in the floodplain within a community subject to flooding from the 1 percent (1%) annual chance event, or 0.2 percent (0.2%) annual chance event depicted on the Advisory Flood Hazard Map.

Advisory Flood Hazard Map. The official map on which the Federal Emergency Management Administration has delineated the areas of advisory flood hazards applicable to the community.

Advisory Flood Hazard Zone A. Is comprised of the areas subject to storm surge flooding from the 1 percent (1%) annual chance coastal flood. These areas are not subject to high velocity wave action, but are still considered high risk flooding areas.

Advisory Flood Hazard Zone V. Is comprised of areas subject to high velocity wave action (a 3 foot breaking wave) from the 1 percent (1%) annual chance coastal flood. Zone V is subject to more stringent building requirements than other zones because these areas are exposed to a higher level of risk.

Building Height. The vertical distance measured from the average elevation of the proposed finished grade at the front of the building to the mean height of the roof. In a Special Flood Hazard Area, the building height shall be measured from the Advisory Base Flood Elevation or Advisory 0.2 Percent (0.2%) Annual Chance Flood Elevation, whichever is more restrictive.

Porches in FHA. Porches (as defined elsewhere in §201 of the Township's Land Use Ordinance)

are permitted in the FHA, however, after accounting for the requirements of stairs as defined in this section, no porch shall extend farther than ½ the distance from the building plane to the front and side lot lines and the actual depth of said porch shall be no larger than eight (8) feet.

Stairs in Flood Hazard Areas (FHA). In the FHA portions of the Township, stairs from elevated structures shall be able to project into the front yard setback – as defined herein. For stairs that provide access from the front of a structure, stairs may project up to fifty percent (50%) of the required front yard setback to accommodate stair access, but in no case shall they be closer than ten (10) feet from the front lot line. In the case of stairways that are accessed from the side of a structure, stairs shall be permitted to project up to fifty percent (50%) of the side yard setback – as defined herein – but may not encroach further than three (3) feet from the prevailing side lot line.

Stairway Landings in FHA. To accommodate stairwell access to elevated structures in the FHA and keeping with the restrictions of stairwell projections as defined in this section, the use of stairway landings may be necessary to effectuate access to a given structure. For the purposes of this Code, stairway landing is defined as a level, uncovered platform installed at the point where stairs change direction, either at the top of or in between flights.

Substantial Improvement. Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent (50%) of the market value of the structure before the “start of construction” of the improvement. This term includes structures which have incurred “substantial damage,” regardless of the actual repair work performed. The term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of State or local health, sanitary or safety code specifications which have been identified by the local code enforcement officer and which are the minimum necessary to assure safe living conditions; or
- b. Any alteration of a “historic structure,” if designated as a key structure and one that would be adversely affected in terms of historic character as determined by the Municipal Construction Official/Floodplain Administrator. Alteration of a “historic structure” shall not be considered a relocation.

§419 FLOOD HAZARD REGULATIONS.

F. Permit Required. A zoning permit, grading permit, a construction permit and a HPC permit, if applicable, must be obtained before construction or development begins within any Area of Special Flood Hazard established by the Federal Emergency Management Agency (FEMA). In addition to the normal information required for a zoning permit application, the following specific information is required to be reviewed by the Township Engineer prior to the issuance of an approved zoning permit:

1. New construction and the substantial improvement of any principal dwelling or commercial building, including attached garages, in an Area of Special

Flood Hazard (ASFH) shall follow the Advisory Base Flood Elevation (ABFE) Standard for the type of construction set forth more fully in Chapter XIX entitled "Flood Damage Prevention"

2. In the areas the base flood elevation has not been determined, the applicant must determine the base flood elevation in accordance with the current NJ DEP Flood Hazard Area regulations and obtain the Township Engineer's Approval;
 3. Certification by a registered professional engineer or architect that the flood proofing methods for any non residential structure meet the flood proofing criteria in Sub-section J.2 below;
 4. Description of the extent to which any water course will be altered or relocated as a result of the proposed development;
 5. Elevation in relation to mean sea level of any ground areas to be disturbed, filled, graded or re-graded;
 6. Certification that all necessary permits have been obtained from those Federal, State or County Government agency from which prior approval is required; and
 7. All base flood elevation and floodway data used to determine whether the proposed development is located in the floodway shall assure that the encroachment provisions of Sub-section K below are complied with. When base flood elevation and floodway data has not been provided in accordance with Subsection C above, the Township Engineer shall obtain, review and reasonably utilize any base flood elevation and flood water data available from a Federal, State or other source, in order to administer Sub-section J. below.
 8. The height limitations required in each zone district shall not apply to Churches.
- H. Areas of Special Flood Hazard. In all areas of Special Flood Hazard, compliance with the requirements of the Uniform Construction Code (N.J.A.C. 5:23) and the standards set forth under Chapter XIX § 19-5 of the General Ordinances of the township of Neptune entitled "Flood Damage Prevention" shall be followed.
- J. New Construction. In all areas of Special Flood Hazard where base flood elevation data have been provided as set forth in Subsection F, the standards set forth more fully under Chapter XIX § 19-5.1, §19-5.2, §19-5.3 and §19-5.4 of the General Ordinances of the Township of Neptune entitled "Flood Damage Prevention" shall be followed.
- L. Architectural Design. In all cases where elevation of a constructed or reconstructed improvement is either necessary or desirable, façade treatment shall be necessary to at least two and one half (2 ½) feet from the finished grade of the building with regard to all sides of the building.
- M. Historic District. Construction and reconstruction of buildings in the Historic District shall be subject to the same standards of Section 419 of the Land Development Ordinance and Chapter XIX entitled "Flood Damage Prevention" of

the General Ordinances, except for key structures, as set forth in the Land Development Ordinance or other designated Ordinances. Applicability to the aforesaid Ordinance or historic exclusion based on the key structure nature of the building shall be determined after review by the Municipal Construction Official/Floodplain Administrator. Should the Municipal Construction Official/Floodplain Administrator determine that the building is subject to §419 of the Land Development Ordinance and Chapter XIX of the General Ordinances entitled "Flood Damage Prevention" and that Substantial Improvements are needed, the Municipal Construction Official/Floodplain Administrator shall issue a Notice of Determination with regard to the need for Substantial Improvements. The determination of the Municipal Construction Official/Floodplain Administrator shall be appealable to the Historic Preservation Commissions (HPC). An aggrieved party can appeal the determination of the Municipal Construction Official/Floodplain Administrator to the HPC within forty-five (45) days of the determination. Any decision of the HPC may be appealed to the Zoning Board of Adjustment in the manner set forth in §706 (Appeals and Application to ZBOA) of the Land Development Ordinance.

- N. Building Coverage, Special Flood Hazard Area. In all Special Flood Hazard Areas within the Township, and only in those cases where residential dwellings will be elevated or demolished and elevated as part of reconstruction, the maximum percentage of building coverage may be increased by ten percent (10%) above the existing building coverage requirement for the zoning district in which the property lies. This standard shall apply to both conforming and nonconforming lots.

All Ordinances or parts of Ordinances which are inconsistent herewith are repealed, but only to the extent of such inconsistency.

The Ordinance shall become effective immediately upon its final passage and publication as required by law.

APPROVED ON FIRST READING: March 25, 2013

APPROVED, PASSED, AND ADOPTED: April 8, 2013

Richard J. Cuttrell,
Municipal Clerk

Eric J. Houghtaling,
Mayor

ORDINANCE NO. 13-12

AN ORDINANCE TO AMEND VOLUME I, CHAPTER XIX OF THE
GENERAL ORDINANCES OF THE TOWNSHIP OF NEPTUNE
ENTITLED "FLOOD DAMAGE PREVENTION"

BE IT ORDAINED by the Township Committee of the Township of Neptune of the County of Monmouth in the State of New Jersey that the General Ordinances of the Township of Neptune, and in particular, Chapter XIX, entitled "Flood Damage Prevention" shall be amended as follows:

19-2 DEFINITIONS.

Advisory Base Flood Elevation (ABFE) shall mean the elevation shown on a community's Advisory Flood Hazard Map that indicates the advisory stillwater elevation plus wave effect (ABFE = SWEL + wave effect) resulting from a flood that has a 1 percent (1%) or greater chance of being equaled or exceeded in any given year. (100 Year Flood Event)

Advisory 0.2 Percent (0.2%) Annual Chance Flood Elevation (AACFE) (500 Year Flood Event) shall mean the coastal water service elevation of a flood having a 0.2 percent (0.2%) annual chance of being equaled or exceeded in any given year. It is expressed in feet referenced to the North American Vertical Datum of 1988 (NAVD 88).

Advisory Flood Hazard Area (AFHA) shall mean the land in the floodplain within a community subject to flooding from the 1 percent (1%) annual chance event, or 0.2 percent (0.2%) annual chance event depicted on the Advisory Flood Hazard Map.

Advisory Flood Hazard Map shall mean the official map on which the Federal Emergency Management Administration has delineated the areas of advisory flood hazards applicable to the community.

Advisory Flood Hazard Zone A is comprised of the areas subject to storm surge flooding from the 1 percent (1%) annual chance coastal flood. These areas are not subject to high velocity wave action, but are still considered high risk flooding areas.

Advisory Flood Hazard Zone V is comprised of areas subject to high velocity wave action (a 3 foot breaking wave) from the 1 percent (1%) annual chance coastal flood. Zone V is subject to more stringent building requirements than other zones because these areas are exposed to a higher level of risk.

Substantial Improvement, as amended, shall mean any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent (50%) of the market value of the structure before the "start of construction" of the improvement. This term includes structures which have incurred "substantial damage," regardless of the actual repair work performed. The term does not, however, include either:

- a. Any project for improvement of a structure to correct existing violations of State or local health, sanitary or safety code specifications which have been identified by the local code enforcement officer and which are the minimum necessary to assure safe living conditions; or
- b. Any alteration of a "historic structure," if designated as a key structure and one that would be adversely affected in terms of historic character as determined by the

Municipal Construction Official/Floodplain Administrator. Alteration of a “historic structure” shall not be considered a relocation.

19-3.2 Basis for Establishing the Areas of Special Flood Hazard.

The area of special flood hazard for the Township of Neptune, Community No. 340317, are identified and defined on the following documents prepared by the Federal Emergency Management Agency:

- a. A scientific and engineering report “Flood Insurance Study, Monmouth County, New Jersey (All Jurisdictions)” dated December 12, 2012.
- c. Flood Insurance Rate Map for Monmouth County, New Jersey (All Jurisdictions) as shown on index and panels, Asbury Park NE, Asbury Park OE E NW, Asbury Park SE, Asbury Park NW whose effective date is December 12, 2012.
- c. Advisory Base Flood Elevations and Advisory Flood Hazard Maps dated December 12, 2012. These documents shall take precedence over previous panels and FIS in construction and development regulations only. Where the Special Flood Hazard Area (SFHA) and the Advisory Flood Hazard Area (AFHA) maps conflict or overlap, whichever imposes the more stringent requirement shall prevail.

The above documents are hereby adopted and declared to be a part of this ordinance. The Flood Insurance Study, maps and advisory documents are on file at 25 Neptune Boulevard, Neptune New Jersey.

19-5 PROVISIONS FOR FLOOD HAZARD REDUCTION.

19-5.1 General Standards.

In all areas of special flood hazards, compliance with the applicable requirements of the Uniform Construction Code (N.J.A.C.5:23) and the following standards, whichever is more restrictive, is required:

- c. *Utilities.*
 4. For all new construction and substantial improvements, the electrical, heating, ventilation, plumbing and air conditioning equipment and other service facilities shall be designed and/or located so as to prevent water from entering or accumulating within the components during conditions of flooding.
- d. *Subdivision Proposals.*
 1. All subdivision proposals and other proposed new development shall be consistent with the need to minimize flood damage;
 2. All subdivision proposals and other proposed new development shall have public utilities and facilities such as sewer, gas, electrical and water systems located and constructed to minimize flood damage;
 3. All subdivision proposals and other proposed new development shall have adequate drainage provided to reduce exposure to flood damage; and

4. Base flood elevation data shall be provided for subdivision proposals and other proposed new development which contain at least fifty percent (50%) lots or five (5) acres (whichever is less).

19-5.2 Specific Standards.

a. *Residential Construction.*

1. New construction and substantial improvements of any residential structure within any Advisory Hazard Zones V and A shall have the lowest floor, including basement together with the attendant utilities and sanitary facilities, elevated at or above the Advisory Base Flood Elevation or Advisory 0.2 Percent (0.2%) Annual Chance Flood Elevation, whichever is more restrictive.

b. *Nonresidential Construction.* In an Area of Special Flood Hazard, all new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall have the lowest floor, including basement together with the attendant utilities and sanitary facilities:

1. Elevated to or above the base flood elevation or advisory base flood elevation, or above the Advisory 0.2 Percent (0.2%) Annual Chance Flood Elevation, whichever is more restrictive.

bb. or

1. Be floodproofed so that below the base flood level plus one (1) foot, or Advisory 0.2 Percent (0.2%) Annual Chance Flood Elevation, (whichever is more restrictive) the structure is watertight with walls substantially impermeable to the passage of water;
2. Have structural components capable of resisting hydrostatic and hydrodynamic loads and effects of buoyancy; and
3. Be certified by a registered professional engineer or architect that the design and methods of construction are in accordance with accepted standards of practice for meeting the applicable provisions of this subsection. Such certification shall be provided to the official as set forth in subsection 19-4.3c,2b.

c. *Manufactured Homes.*

1. Manufactured homes shall be anchored in accordance with subsection 19-5.1a,2.
2. All manufactured homes to be placed or substantially improved within an area of special flood hazard shall be elevated on a permanent foundation such that the top of the lowest floor is at or above the base floor elevation or Advisory 0.2 Percent (0.2%) Annual Chance Flood Elevation, (whichever is more restrictive).

d. *Historic District.*

Construction and reconstruction of buildings in the Historic District shall be subject to the same standards as this Ordinance, except for key structures, as set forth in

the Land Development Ordinance or other designated Ordinances. Applicability to the aforesaid Ordinance or historic exclusion based on the key structure nature of the building shall be determined after review by the Municipal Construction Official/Floodplain Administrator. Should the Municipal Construction Official/Floodplain Administrator determine that the building is subject to this Ordinance and the standards of this Ordinance, and that Substantial Improvements are needed, the Municipal Construction Official/Floodplain Administrator shall issue a Notice of Determination with regard to the need for Substantial Improvements. The determination of the Municipal Construction Official/Floodplain Administrator shall be appealable to the Historic Preservation Commissions (HPC). An aggrieved party can appeal the determination of the Municipal Construction Official/Floodplain Administrator to the HPC within forty-five (45) days of the determination. Any decision of the HPC may be appealed to the Zoning Board of Adjustment in the manner set forth in §706 (Appeals and Application to ZBOA) of the Land Development Ordinance.

19-5.4 Coastal High Hazard Area.

Coastal high hazard areas (V or VE Zones) are located within the areas of special flood hazard established in subsection 19-3.2. These areas have special flood hazards associated with high velocity waters from tidal surges and hurricane wave wash; therefore, the following provisions shall apply:

a. *Location of Structures.*

1. All buildings or structures shall be located landward of the reach of the mean high tide.
2. The placement of manufactured homes shall be prohibited, except in an existing manufactured home park or manufactured home division.

b. *Construction Methods.*

1. Elevation.

All new construction and substantial improvements shall be elevated on piling or columns so that:

(a) The bottom of the lowest horizontal structural member of the lowest (excluding piling or columns) is elevated to or above the base flood elevation, Advisory Base Flood Elevation or as required by the Uniform Construction Code (N.J.A.C. 5:23), whichever is more restrictive, and

(b) with all space below the lowest floor's supporting member so as not to impede with the flow of water, except for breakaway walls as provided for in subsection 19-5.4b,4.

4. Space Below the Lowest Floor.

(a) Any alteration, repair, reconstruction or improvement to a structure started after the enactment of this ordinance shall not enclose the space below the lowest floor unless breakaway walls, open wood lattice-work or insect screening are used as provided for in this section.

- (b) Breakaway walls, open lattice-work or insect screening shall be allowed below the base flood elevation provided that they are intended to collapse under wind and water loads without causing collapse, displacement or other structural damage to the elevated portion of the building or supporting foundation system. Breakaway walls shall be designed for a safe loading resistance of not less than ten (10) and no more than twenty (20) pounds per square foot (either by design or when so required by local or State codes) may be permitted only if a registered professional engineer or architect certifies that the designs proposed meet the following conditions.
 - (1) breakaway wall collapse shall result from a water load less than that which would occur during the base flood and,
 - (2) The elevated portion of the building and supporting foundation system shall not be subject to collapse, displacement or other structural damage due to the effects of wind and water load acting simultaneously on all building components (structural and non-structural). Water loading values used shall be those associated with the base flood. Wind loading values used shall be those required by applicable State or local building standards.
- (c) If breakaway walls are utilized, such enclosed space shall be used solely for parking of vehicles, building access or storage and not for human habitation.
- (d) Prior to construction, plans for any breakaway wall must be submitted to the Building Sub-Code Official for approval.

All Ordinances or parts of Ordinances which are inconsistent herewith are repealed, but only to the extent of such inconsistency.

The amended Ordinance shall become effective immediately upon its final passage and publication as required by law.

APPROVED ON FIRST READING:

March 25, 2013

APPROVED, PASSED, AND ADOPTED:

April 8, 2013

Richard J. Cuttrell,
Municipal Clerk

Eric J. Houghtaling,
Mayor