

Floodplain Management Plan

Stafford Township
 Ocean County, New Jersey

September 2013

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Mayor John Spodofora

Councilman Stephen Fessler

Councilman Paul Krier

Councilman Robert Kusznikow

Councilman Henry Mancini

Councilwoman Sharon McKenna

Councilwoman Lori Wyrsh



Prepared by:
Floodplain Management Committee
Stafford Township
Ocean County
260 East Bay Avenue
Manahawkin, NJ 08050

With assistance from...

James A. Moran, Township Administrator

Bonnie N. Flynn, PP, AICP, Director of Community Development

Robert A. Gaestel, Jr., Construction Code Official

Jeffrey S. Pharo, Deputy Director of Community Development

Chief Joseph Giberson, Stafford Township Emergency Management

Ronald Cop, Superintendent of Public Works

Brooke Tarabour Ginsburg, Howard Wolf,

Cheryl Copeland, Mickey Stroup and Steven Ardito from FEMA

Robert Butkus, Ocean County Office of Emergency Management

Floodplain Management Plan

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PLAN PURPOSE

The Floodplain Management Plan is being updated to serve as a guide for the Township's continued flood hazard mitigation efforts over the next five years. Such efforts may include ordinance modifications and implementation; grant applications to Federal and State agencies, assistance to local homeowners, outreach efforts and development of Township policies to mitigate flooding hazards. The plan is also a required element in the Township's continued participation in the Community Rating System program (detailed below).

The Floodplain Management Plan was prepared by the Floodplain Management Committee led by the Stafford Township Director of Community Development and Community Rating System Coordinator with the help of the Township's Emergency Management Coordinator, Superintendent of Public Works, Construction Code Official, Zoning Officers, Township Engineer, FEMA Hazard Mitigation Community Planners and the Ocean County Office of Emergency Management. The plan was developed using materials and information included in the Ocean County All Hazards Mitigation Plan. Stafford Township acknowledges and appreciates everyone's efforts in creating the Plan.

TOWNSHIP DESCRIPTION

The Township of Stafford is located in southern Ocean County with portions of the 47 square mile community within the New Jersey Pinelands and under the jurisdiction of the Pinelands Comprehensive Management Plan and portions under the jurisdiction of the Coastal Area Facility Review Act, also known as CAFRA. Within the 16,832 acre CAFRA area is the Township's Special Flood Hazard Area (SFHA). The 8,362 acre SFHA lies along the Barnegat Bay which leads to the Atlantic Ocean. The Township has 12.2 miles of bay frontage. Much of the northern portions of the SFHA are preserved, with a majority of the undeveloped land comprised of freshwater and tidal wetlands. Most of the lands are owned by the Federal or State government and designated as the Manahawkin Wildlife Management Area and the Edwin B. Forsythe National Wildlife Refuge. The development in the SFHA mainly consists of single-family homes with bulkheads on lagoon waterways that lead to the Barnegat Bay or homes directly on Barnegat Bay. These areas are known as Beach Haven West, Mallard Island and Cedar Bonnet Island. The human-made lagoon area of Beach Haven West began as a resort community in the 1950s and 1960s but a majority of owners are now full-time residents. In total, there are approximately 13,500 residential units in the Township with roughly 35% in the Special Flood Hazard Area. There is also a small amount of commercial development in the SFHA.

Due to the flood hazard risk, the Township entered the National Flood Insurance Program's (NFIP) Community Rating System (CRS) in 1991. CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP standards. As a result, flood insurance policy holders receive a discount on their annual premiums depending on their flood zone and elevation of the insured structure together with the Township's CRS classification. Stafford has reached a Class 6 rating which provides for up to a 20% discount for policyholders. This is a savings of over \$800,000 for property owners throughout the Township. Over the years the Township has adopted ordinances that exceed minimum standards such as a one-foot freeboard requirement and impervious coverage ordinance. The Township engages in outreach activities including sending annual information to

SFHA property owners as well as providing information on the website, the local library and various civic meetings throughout the year.

HAZARD ASSESSMENT

Flood Hazard and Repetitive Losses

Flooding is the temporary condition of partial or complete inundation on normally dry land and it is the most frequent and costly of all hazards in the US. Flooding can occur any time of the year and as a result of many factors. Precipitation is the most common but flooding can also occur due to snowmelt or storm surges from storm events with little to no precipitation. Other factors include the topography, soil content and ground cover, timing of previous weather events and tides. Still other factors include impediments to normal stream flow or storm water runoff such as a damming up by fallen trees or infrastructures such a bridge or culverts collapsing. Any blockage to natural or human-made storm water flows may cause flooding.

Flooding can cause injury or death to those in its path as well as being very costly as a result of property damage. Flooding often occurs quickly and individuals may not be able to prepare themselves or be able to get out of harm's way. Flash flooding can occur with a significant amount of rain over a short period of time.

Flooding is not always a hazard and as floodplains are covered with flood waters it does result in replenishment of nutrients along stream/river banks and pollutant fallout as well as recharging groundwater and supporting biodiversity. It is when human development is introduced to a flood prone area that it may become a hazard.

The Township is subject to tidal flooding most often from both hurricanes or tropical storms and winter storms. Much of the area is low marshland that is very open to tidal surge through Little Egg Inlet from the south and through Barnegat Inlet from the north. An analysis of elevation certificates shows that the land is anywhere from approximately 3 to 7 feet above sea level. The impacts of lesser weather events with high rain amounts are also showing some effect on properties that lie closer to sea level. The 18-mile long barrier island of Long Beach Island, does provide some protection for the direct effects of the Atlantic Ocean surge, but is subject to erosion when dunes fail and this protection level could be altered during a storm event.

The Township has been affected by numerous hurricanes and nor'easters since records have been kept. Most notably were the 1962 nor'easter that caused major damage to Long Beach Island and flooding in Stafford, two high flood claim events in 1991 including the Halloween Nor'easter, a nor'easter in December 1992 with almost 800 flood claims, coastal and flash flooding event in August 1997, a flash flood event with 6-8 inches of water in a short time in September 2006 with many bulkheads destroyed and finally Hurricane Sandy with thousands of claims and homes inundated with flood waters. Although rain was not heavy, winds and a very large storm surge inundated almost the entire SFHA with thousands of homes inundated with flood waters, in some cases up to 5 or 6 feet.

Many flooding occurrences are the result of unnamed and even minor weather events but due to the low elevation of many homes, they are susceptible to flooding impacts.

Before Hurricane Sandy and since 1978, there were almost 1,500 flood insurance claims made by Township property owners. Some of those claims resulted in a property being deemed a Repetitive Loss property. Previously, the definition of a Repetitive Loss property is that two or more claims of at least \$1,000 were paid by the NFIP within any 10-year period since 1978. A Severe Repetitive Loss property is one that has at least four NFIP claims (including building and contents) over \$5,000 each, and the cumulative amount of such claims payments exceeds \$20,000 or for which at least two separate claims (building payments only) have been made with the cumulative amount of the building portion of such claims exceeding the market value of the building. These claims totaled approximately \$10million and over \$2million for Repetitive Loss properties.

The Township is considered a Class C Repetitive Loss Community which means that 10 or more properties are designated as Repetitive Loss properties. Based on FEMA data through June 20, 2013, the Township has 93 repetitive loss properties. The Township's Repetitive Loss inventory has changed due to Hurricane Sandy as well as the Biggert-Waters Flood Insurance Reform Act of 2012 (BW12). The definitions have changed and will impact Stafford significantly mostly due to the age of the structures in the SFHA. As defined and pursuant to the Hazard Mitigation Assistance Unified Guidance and in conformance with BW12, a repetitive loss property is a structure that:

- Is covered by a contract for flood insurance made available under the NFIP and that:
- Has incurred flood-related damage on 2 occasions, in which the cost of the repair, on the average, equaled or exceeded 25 percent of the market value of the structure at the time of each such flood event; and
- At the time of the second incidence of flood-related damage, the contract for flood insurance contains increased cost of compliance coverage.

A severe repetitive loss property is a structure that:

- Is covered under a contract for flood insurance made available under the NFIP and:
- Has incurred flood related damage –
 - For which 4 or more separate claims payments have been made under flood insurance coverage with the amount of each such claim exceeding \$5,000, and with the cumulative amount of such claims payments exceeding \$20,000; or
 - For which at least 2 separate claims payments have been made under such coverage, with the cumulative amount of such claims exceeding the market value of the insured structure.

A Repetitive Loss map is provided in the Appendix and is based on repetitive loss claim data from the FEMA through June 30, 2013. The map shows that the repetitive loss properties are scattered throughout the Beach Haven West, Mallard Island and Cedar Bonnet Island areas with the exception of one parcel on East Bay Avenue. The Beach Haven West area consists of many homes constructed with slab foundations and since they were built before the NFIP came into existence, are usually below the base flood elevation. Storm drains from adjacent roadways lead directly into the lagoons and during times of heavy rainfall or high tides, stormwater runoff is blocked from dissipation.

PROBLEM ASSESSMENT

Impact of Flooding

There are approximately 4,700 housing units in the SFHA together with approximately 20 business establishments including boat sales and rentals and restaurants. The development of the lagoon areas in the Township began well before the NFIP or any regulations for wetlands and coastal development. Most of the homes were built on a slab foundation and in later years it would show that most were built with their first floors below the base flood elevation. Over the years, as seen in many older neighborhoods, homes are rebuilt and any homes re-built after the Township's participation in the NFIP, were built according to the regulations at the time. Still thousands of homes continue to lie below the base flood elevation. Almost all of these homes were greatly impacted by Hurricane Sandy. Although most of the SFHA has public water, some areas such as Cedar Run Dock Road have private wells that could be contaminated by the flood waters.

The Township has very few critical facilities in the SFHA and they include the following:

- Stafford Municipal Utilities Authority – Pump Station on Cedar Bonnet Island – this facility was damaged during Hurricane Sandy and currently being repaired.
- Stafford Municipal Utilities Authority – 1209 Mill Creek Road - Water tower
- Mill Creek Community Center – currently closed after severe damage by Hurricane Sandy. This facility does not meet the definition of a critical facility but is included since it is Township owned.
- Ocean County Sewerage Authority – 1179 Mill Creek Road – Pump station
- Stafford Municipal Utilities Authority – 800 Mill Creek Road – Pump station and water tower – The facility lies in the .2% chance flood zone according to FEMA's recently released Preliminary Working Maps but is in the AE flood zone on the Township's 2006 FIRM.
- Jennings Road Recreation Center – Similarly Township owned and does not meet the definition of a critical facility.

The Manahawkin Bay Bridge would not be considered a critical facility but is a critical component of the evacuation plan for the easterly portions of Stafford Township and the six communities on Long Beach Island. If this major crossing or any roadway in the Township is impacted by flooding or other severe weather event, it will hinder the safe and timely evacuation of residents. Also, emergency personnel may be required to utilize special transport vehicles to help with evacuation and this puts a strain on first-responders.

The Township contains the following critical facilities outside the SFHA:

- Southern Ocean Medical Center, (1140 Route 72)
- Warren Grove fire Station (Rt. 539)
- Stafford Township Volunteer Fire Company (133 Stafford Avenue)
- Stafford Township Volunteer Fire Company (Nautilus Drive)
- Stafford First Aid (Bay Avenue)
- Stafford First Aid (Nautilus Drive)

- Department of Public Works (Business Park)
- Stafford Township Community Center (775 East Bay Avenue)
- Stafford Township Municipal Building (260 East Bay Avenue)
- OCUA Southern Sewer Treatment Plant (Cedar Run Dock Road)
- NJ Natural Gas (Route 9 North)
- Atlantic City Electric (Route 9 South)
- Southern Regional High School (Route 9 & Cedar Ridge Road) – Township shelter location

Development Trends

Most of the existing development in the SFHA began before planning and zoning regulations existed as well as other State regulated controlling legislation (ie wetlands protection). There are very few buildable lots left and any building in the future will be infill or redevelopment. Any new development would adhere to all local floodplain and State regulations.

Flood Insurance Claims and Substantial Damage Determinations

As previously noted, the Township has a number of repetitive loss properties. Historical data shows that there are also thousands of one-time claims and many due to Hurricane Sandy. The Township currently has 3,722 flood policies in effect and should strive for full coverage in the SFHA. From 1978 and through September 27, 2013, 4552 claims have been paid, totaling \$216,325,869. Many of these homes were built before the NFIP was instituted, have first floors below the minimum base flood elevation and continue to be susceptible to flood risk. The non-compliant homes are those with a slab foundation as well as a block foundation with a crawl space.

The Township has issued 1,100 substantial damage letters through September 20, 2013. (See map provided showing Repetitive Loss properties as well as Substantially Damaged properties (all 1,100 SD properties are not shown). A small percentage of homes were out of compliance with regard to the Advisory Base Flood Elevation map and now meet or exceed the base flood elevation on the Preliminary Work Map. The majority of homes still does not meet the current minimum elevation standards and will either be elevated or built new to comply with Township and NFIP standards. The Township has already issued over 250 demolition permits due to Hurricane Sandy.

Warning and Evacuation Plans

Stafford Township has an Emergency Management Plan in place to address emergency operations resulting from any severe weather or hazard event and the actions that would be taken to evacuate residents from low-lying areas. The State of NJ has recently approved the Township's revised Emergency Operations Plan (EOP). (See letter from the State dated August 15, 2013). The plan includes information on warnings and communications, evacuation plans, emergency medical and public health, fire and rescue, resource management and public works activities, sheltering, radiological protection, terrorism and damage assessment.

At the direction of Emergency Management Coordinator route alerting is performed by the Township Police, Fire and First Aid personnel by emergency vehicles with mobile public address systems and door-to-door contact. The Reverse-911 system is also used to alert residents. Warnings are also issued by the Comcast Telecommunications Broadcast System and local radio stations such as WOBM-(FM) 92.7, WOBM-(AM) 1170, WJRZ-(FM) 100.1, WJLK-(FM) 94.3 & 98.5, WJLK-(AM) 1310. In addition there are five Oyster Creek Nuclear sirens and four fire sirens in Stafford Township. The sirens for the identified hazard are activated by the Ocean County Emergency Management Coordinator. The Stafford Township Police Communications Center is a NAWAS (National Warning System) facility for 24 hour warning notice.

Warning procedures for all schools, the Southern Ocean Medical Center (formerly Southern Ocean County Hospital) and all nursing homes will be consistent with the notification plans for the general public (i.e. route alerting and door-to-door contact). Special assistance and transportation, however, will be available for impaired patients of the hospital and nursing homes. The Police Department also has an evacuation plan listing routes, manpower needs, shelters and route signs. Residents are encouraged to register with the State if they have special needs in case of an evacuation.

Natural Areas

Freshwater and tidal wetlands are the most prominent undeveloped natural area in Stafford Township. Most areas east of Route 9, with the exception of developed lands, are either freshwater or tidal wetlands. The wetland areas are an interface between the Barnegat Bay and the uplands areas, absorbing and dissipating the impact of the storm waves and surges, storing flood waters and trapping sediment and pollution. The freshwater and tidal wetlands of Stafford Township and the New Jersey coastal zone are habitat for finfish, shellfish, game and non-game animals and songbirds. The coastal area is well known to be the wintering habitat for migrating waterfowl. Almost ten thousand acres (equal to 15 square miles) of land in the eastern sector of the Township have been acquired by the Federal government for exactly that purpose.

GOALS

The goals of the Stafford Township Floodplain Management Plan are as follows:

- Protect human life and health;
- Minimize expenditure of public money for costly flood control projects;
- Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- Minimize prolonged business interruptions;
- Minimize damage to critical infrastructure, public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;
- Help maintain a stable tax base by providing for the mitigation of substantially damaged homes and the regulation of new homes and other development of the SFHA so as to minimize future flood blight areas;
- Ensure that potential buyers are notified that property is in a SFHA; and
- Ensure that those who occupy the SFHA assume responsibility for their actions.

The Township and Floodplain Management Committee have deliberated on a number of possible activities as follows:

Preventive Activities

Preventive activities are those efforts which attempt to prevent flood problems from getting worse. Such activities are either regulation-based or maintenance items and are administered by the Township Community Development, Building or Public Works Departments. Examples of preventive activities are: zoning regulations, open space preservation, floodplain regulation, storm water management and drainage system maintenance.

Much of the SFHA is either developed or essentially barred from development since it is owned by either the Federal or State government or prohibited from development by Federal or State coastal and wetlands regulations. Since the Township strictly enforces its current floodplain regulations, there is limited additional zoning or floodplain regulation that could be adopted that would prevent future flooding. The Township has a very comprehensive and up-to-date storm water management ordinance to reduce offsite storm water runoff from new development. All catch basins are inspected annually and after any flooding or other hazard that may cause blockage. Detention basins are inspected monthly (weekly during mowing season) or after any major rain event. There are no basins in the SFHA but several in the Township that could influence watershed drainage. The Township should increase its maintenance of critical human made and natural drainage waterways to at least two times per year. The Township has a jet/vac truck to maintain catch basins and pipes when maintenance is called for.

Property Protection

Protection activities are on a building by building basis and undertaken by private property owners. This includes relocation, acquisition, and elevation of an existing building, flood proofing, sewer backup protection and flood insurance. The Township can encourage all of the appropriate activities and offer guidance for rebuilding and provide information on various funding sources. The Township shall continue to enforce its floodplain regulations.

Natural Resource Protection

Natural resource protection activities are programs, policies and projects which preserve the natural functions of floodplain and watershed areas. Examples of natural protection activities are wetlands protection, erosion control, and best management practices for water quality. The Township should continue to enforce its impervious coverage ordinance, together with all State and Federal natural resource protection legislation including but not limited to the following. These may either limit development or regulate the impact on natural resources:

Federal Regulations:

- Coastal Zone Management Act
- National Flood Insurance Program
- Clean Water Act

State Regulations:

- NJDEP Storm water Management Regulations
- Residential Site Improvement Standards
- NJDEP Coastal Zone Management - Coastal Area Facilities Review Act
- Storm water Management Control Act
- Flood Hazard Control Act
- Soil Conservation District
- Freshwater Wetlands Protection Act
- Soil Erosion and Sediment Control Act

Municipal Regulations:

- Stafford Township Impervious Coverage Ordinance (Chapter 211 – Zoning)
- Stafford Township Code, Chapter 130 – Land Use and Development including Storm water Regulations and Chapter 114 – Flood Hazard Areas

Emergency Services

The Township Emergency Management Coordinator together with the Ocean County Office of Emergency Management shall continue to stand ready to face any hazard that may impact the Township. Coordination of all local stakeholders including the Community Development (Floodplain Administrator), Building and Public Works Departments, County and State first responders, volunteers and residents shall be done along with continual training and plan updates. The Emergency Operations Plan (EOP) that was recently approved by the State of New Jersey provides for warnings of flooding or other storm events as well as other impending hazards. Monitoring of tidal gauges as well as the National Weather Service bulletins is key and personal from the local OEM and Public Works Department are tasked to perform this necessary activity. The EOP contains a detailed description of notification of residents and a system of evacuation. Emergency information including evacuation routes and shelter locations is provided through the Township calendar, Township website and during an event, through Emergency Broadcasting stations. The Township should be ready with road block equipment, chain saws or other equipment to remove trees or other debris from roadways, have a supply of necessary first aid kits, flashlights, rain or hazardous material gear, gasoline for vehicles and maintain all of the specialty vehicles that can enter flooded areas and remove stranded residents to safe locations.

Structural Projects

Structural projects are public works projects that keep flood waters from a certain area such as a levee, a diversion, a channel modification or beach nourishment. Due to the unique landscape of the developed areas of the SFHA, appropriate municipal structural projects would include storm sewer construction and alterations and tidal valves on the storm water outfalls.

Public Information

Public information activities are the outreach efforts to private property owners, visitors, business people as well as future property owners to advise them of flood hazards, how to protect themselves and their homes and the benefits of protecting flood plains. Such activities may

include displaying the SFHA map at the municipal building, elevation markers in flood-prone areas, evacuation signs along key roadways, mailings, publications at the Library and technical assistance by Township employees.

The Township engages in extensive outreach to residents which includes the annual Township calendar mailed to every address, a mailing to owners in the SFHA with specific information on their flood risk and ways to avoid damage, providing manuals and other flood related publications at the local branch of the Ocean County library, and providing information to local realtors, insurance agents and banking institutions about the flood information that the Township can supply. There is also an extensive amount of information and links on the Township website as well as brochures and handouts provided at the Building and Zoning Department counter, the counter by the Water & Sewer Department and the main lobby of the municipal building. The Township should continue with its past efforts as well as design an outreach strategy to focus on one or two topics every few months to discuss at civic meetings, Council meetings or videos produced for the website. As evidenced by the massive amount of contact after Hurricane Sandy, many people did not review the information mailed to them and some didn't even know they were in a flood zone.

ACTION PLAN

This section of the Plan contains a list of activities which Stafford Township will pursue based on the specific nature of the flooding problem and the appropriate solutions for the Township. In general, costly public works projects will not protect the entire SFHA and such projects would have very limited benefits. The most effective remedy to flood damage is the elevation of existing structures above the latest base flood elevations recommended by FEMA.

The list of activities is not in any order of ranking or priority. The future agenda of the Flood Hazard Mitigation Committee should include a determination of priorities among the projects listed below and a schedule for continued monitoring and modification of activities.

Short Range Activities

S1. Continue to expand the scope of the Floodplain Management Plan

- Responsible Agency: Community Development Department and Floodplain Management Committee
- Time Schedule: Ongoing
- Funding: The cost will be based on the scope of the work. Funding may be obtained from the Post Sandy Planning Assistance Grant program through NJDCA or NJ Office of Emergency Management Hazard Mitigation Program

S2. Continue to expand flood hazard mitigation activities under CRS to increase credits

- Responsible Agency: Community Development Department and Floodplain Management Committee
- Time Schedule: Each year an additional activity should be targeted for implementation as part of a five year plan

- Funding: The funding will be appropriate to the activity
- S3. Examine the Township's current floodplain regulations and building and zoning codes to determine the appropriate addition of higher standards
- Responsible Agency: Community Development Department and Floodplain Management Committee
 - Time Schedule: 1 year to prepare report for the Township Council
 - Funding: N/A – Staff/Committee time
- S4. Monitor the progress on the Action Plan items: prepare progress reports for submission to the Township Council
- Responsible Agency: Community Development Department and Floodplain Management Committee
 - Time Schedule: Progress reports should be prepared on an annual basis, one year from the date of submission of the Floodplain Management Plan
 - Funding: N/A – Staff/Committee time
- S5. Continue to explore grant funding opportunities for action plan items
- Responsible Agency: Community Development Department, Floodplain Management Committee or Township Engineer
 - Time Schedule: In progress and ongoing
 - Funding: N/A – Staff/Committee time
- S6. Continue to explore grant funding opportunities to assist homeowners with elevating their substantially damaged homes or acquiring those properties for open space
- Responsible Agency: Community Development Department, Floodplain Management Committee or Township Engineer
 - Time Schedule: In progress and ongoing
 - Funding: N/A – Staff/Committee time
- S7. Promotion of flood hazard awareness, flood insurance protection and flood damage prevention through a public outreach strategy. One focus should be on determining how to reach those residents who may not have access to the internet or have other special needs.
- Responsible Agency: Community Development Department and Floodplain Management Committee
 - Time Schedule: One year to create strategy plan (mailings, website, speaking engagements, videos, press releases) anticipating several activities per year
 - Funding: Staff/Committee time and any funding will be appropriate to the activity

- S8. Install new flood elevation markers in prominent locations showing the height of floodwaters during Hurricane Sandy
- Responsible Agency: Township Engineer, Emergency Management Coordinator, Public Works Department
 - Time Schedule: One year for evaluation and installation
 - Funding: Flood markers require elevation by the Township Engineer and the markers can be fabricated by Public Works staff
- S9. Installation of additional retention basin and infrastructure under Route 72 near Ocean Acres near Neptune Drive.
- Responsible Agency: Township Administrator, Township Engineer and Public Works Department
 - Time Schedule: In progress. Pinelands Commission requirements currently being fulfilled in order for permits to be issued
 - Funding: Municipal budget

Long Range Activities

- L1. Increase CRS rating to a Category 5 community which will provide for up to a 25% discount for flood insurance policy holders
- Responsible Agency: Community Development Department to facilitate and coordinate
 - Time Schedule: Up to 3 years and before the Township's next cycle verification in 2016 in order to benefit from the cycle verification review
 - Funding: Various sources based upon type of activity
- L2. Expand drainage system maintenance activities by obtaining access easements from private property owners, purchase of adequate equipment and hiring of sufficient personnel
- Responsible Agency: Public Works Department
 - Time Schedule: Ongoing and as necessary
 - Funding: N/A – Staff time
- L3. Continue training of Township personnel. Training related to floodplain management is key but training for all those staff that engage in any type of mitigation or emergency management can only benefit the Township as a whole
- Responsible Agency: Community Development Department (to facilitate floodplain management training) and Township Administrator (to facilitate general staff training)
 - Time Schedule: Ongoing
 - Funding: Staff time. Municipal budget to attend outside training

- L4. Upgrade mapping, using Geographic Information Systems (GIS), of the entire SFHA including but not limited to flood zones, developed and undeveloped parcels, ownership of parcels, acreage of open space or other development limiting tenure, drainage and storm water infrastructure. Additional data as can be garnered to obtain additional CRS points. Also will help with L#5 below. Link to Community Development Department hardware/software for daily use by staff.
- Responsible Agency: Township Engineer with consultation of the Community Development Department and direction by the Township Administrator.
 - Time Schedule: Within 1-2 years to fully map the SFHA and its components. Update as required thereafter
 - Funding: Municipal budget
- L5. Examine updated mapping to identify parcels in the floodplain appropriate for preservation or acquisition
- Responsible Agency: Community Development Department
 - Time Schedule: Within 1 year of updated mapping
 - Funding: N/A – Staff time
- L6. Upgrade storm outfalls – increase inlet sizes, install. tidal valves. Each street will require an evaluation and outfall modification will require state permits
- Responsible Agency: Township Engineer in consultation with the Township Administrator and Public Works
 - Time Schedule: 2-5 years
 - Funding: Based on geographic scope of work; construction can be done in phases

Public Involvement, Flood Hazard Mitigation Committee and Coordination with Other Agencies

The following information explains the creation of the within Floodplain Management Plan and all efforts that have shaped the Plan.

Stafford Township created its Floodplain Management Committee by Resolution dated September 4, 2012 and requested that residents contact the town if they were interested in providing input or being on the committee. Due to revisions by the Federal Emergency Management Agency (FEMA) of the Township's flood zone maps (including the ABFE maps released on 12/12/12 and adopted by the Township on March 5, 2013 and the Preliminary Work Maps released on 6/17/13 and adopted by the Township on July 9, 2013, both attached hereto), the Mayor and Council have continually announced, during their bi-monthly Council meetings, a request for input by residents related to their elevation certificates or anecdotal information related to their experience during Hurricane Sandy. Several residents have provided their elevation certificates which were used by the Township Engineer to support the Township's appeal of portions of the ABFE and PW maps. During its meeting on March 19, 2013, the Township Engineer, CME Associates, presented information related to the ABFE maps as well

as general flooding information and plans for mitigation. Residents were able to have questions answered and provide additional on-the-ground information. All Township Council meetings are available online for viewing at any time.

Stafford Township held two (2) floodplain management plan workshops to garner input from residents of their past experiences related to flooding and suggestions they may have to avoid future risk and damage. Workshops were held on September 18, 2013 and September 25, 2013 in the 1st floor meeting room of the Township building. The workshop sign-in sheet, flyers and newspaper legal notice are included in the Appendix. Also, the workshops were announced at the Township Council's September 17, 2013 meeting.

During the September 18th workshop, one resident, also a realtor in the township that is dealing directly with many homeowners in the sale of their flood-damaged homes, explained that she had already raised her home years ago and did not have any damage. She remarked that the evacuation and alerting before the storm was excellent but the communication after Hurricane Sandy could have been better. The power was out for several days and some information was posted on the Township's website but many residents are not computer or internet savvy and we need to figure out the best way to communicate before and after an event and throughout the year to our elderly or special needs population.

During the September 25th workshop, no residents attended. Helen Henderson from the American Littoral Society did attend in hopes to speak with residents about their experiences from Hurricane Sandy. I explained what I intended to discuss with the workshop attendees and provided her with the various handouts which were as follows:

- Excerpt from the Township Code, Chapter 114 – Flood Hazard Areas – The excerpt consisted of the ordinance's Statement of Purpose and Methods of Reducing Flood Losses. This was to give attendees a sense of what our ordinance requires in order to enhance the requirements with policy changes through the Floodplain Management Plan
- Steps to Create Floodplain Management Plan – This handout listed the substantive portions of the Plan that the Committee and stakeholders would discuss
- The 2007 Floodplain Management Plan to see what the Township is already doing
- Maps including the Major Storms Tracking through or near Ocean County and Sea Level Rise Vulnerability map
- Schematic showing VE through to X zones with sea level, Stillwater elevation, BFE etc.
- Three FEMA flyers including one on Floodplain Management, Community Rating System and on the National Flood Insurance Program
- The general flyer that covers information on flood insurance, past floods, flood safety and development in a flood zone.

Also in the conference room for review by any attendees were the 2006 FIRM and two maps by FEMA showing the new SFHA with substantial damage and repetitive loss locations. Pictures are provided showing the room's set up which was the same for both workshops.

In support of hazard mitigation efforts throughout the County, the Ocean County Office of Emergency Management, together with its partners, Barnegat Bay Partnership, Jacques Cousteau National Estuarine Research Reserve and consultant, Baker Corp., created a website to facilitate

feedback from the public and municipal officials. A survey was created and available as of May 2013. Information was requested from both residents and business owners as to their experience over the last 5 years related to all hazards (natural and human-made), their level of knowledge on mitigation efforts, methods of communication that may best be used in the future, and their level of readiness in case of an hazard event.

Other outreach activities related to the County plan include a Risk Assessment meeting held on February 13, 2013 at the Ocean County Library in Toms River and Public & Stakeholder meetings held on May 14, 2013 at the Ocean County Office of Emergency Management in Berkeley Township and on May 20, 2013 at the Ocean County Southern Service Center in Manahawkin (Stafford Township). Township staff attended both the Risk Assessment meeting held on February 13, 2013 and the Public & Stakeholder meeting held on May 20, 2013.

Stafford Township responded to a Capability Assessment Worksheet that asked a series of questions related to the Township's current planning documents, building codes, and general land use development regulations as well as the Township's administrative and technical abilities related to hazard reduction. The Township also completed the Municipal Hazard Worksheet.

Floodplain Management Committee members reviewed the following documents to help in creating the Plan:

1. 2007 Stafford Township Floodplain Management Plan
2. Hazardous Weather Annex of the Emergency Operations Plan in detail and EOP in general
3. Portion of the draft 2013 Multi-jurisdictional All Hazard Mitigation Plan for Ocean County
4. ABFE maps and Preliminary Work Maps released by FEMA together with the Township's current 2006 FIRM
5. Stafford Township Police Department minute by minute accounting during Hurricane Sandy
6. Historical Claim data provided by FEMA through December 2011
7. Biggert-Waters Flood Insurance Reform Act of 2012

It is the intent of the Floodplain Management Committee to present the approved Floodplain Management Plan to the Township Council for adoption. The next scheduled meeting of the Township Council is October 1, 2013.

Stafford Township Floodplain Management Plan

Appendix

1. Ordinance 2013-04 – Adopting ABFE maps
2. Ordinance 2013-11 – Adopting Best Available Data (Preliminary Work Maps)
3. FEMA prepared map showing properties deemed substantially damaged (a majority of the 1,100 SD properties are shown but not all), repetitive loss properties or both.
4. Letter dated 8/15/13 from the State of New Jersey approving the Township's Emergency Operations Plan.
5. Resolution 2012-227 creating the Floodplain Management Committee
6. Workshop Information including flyers, newspaper ad, sign-in sheets, handouts provided and pictures of the workshop venue
7. Ocean County Hazard Mitigation Plan information including meetings held to date, project partner lists, proof of attendance by Stafford representatives and information supplied by Stafford.

ORDINANCE 2013 -04

**ORDINANCE OF THE TOWNSHIP OF STAFFORD,
COUNTY OF OCEAN AND STATE OF NEW JERSEY,
AMENDING AND SUPPLEMENTING CHAPTER 114
OF THE TOWNSHIP CODE OF THE TOWNSHIP OF
STAFFORD, ENTITLED "FLOOD HAZARD AREAS"**

WHEREAS, the Township of Stafford participates in the National Flood Insurance Program and has adopted certain floodplain management regulations into its code book under Chapter 114 entitled Flood Hazard Areas; and

WHEREAS, the Federal Government, from time to time, updates the Flood Insurance Rate Maps that regulate development in the Township's Special Flood Hazard Area (SFHA); and

WHEREAS, the Federal Government has released Advisory Base Flood Elevation maps dated December 12, 2012; and

WHEREAS, the Township of Stafford intends to regulate the Special Flood Hazard Area utilizing the December 12, 2012 Advisory Base Flood Elevation maps.

NOW, THEREFORE, BE IT ORDAINED, by the governing body of the Township of Stafford, County of Ocean and State of New Jersey, as follows:

SECTION 1. The Township Code of the Township of Stafford is hereby amended and supplemented so as to amend § 114-5, entitled, "Terms defined," so as to add or replace the following 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 or greater chance of being equaled or exceeded in any given year.

Advisory Flood Hazard Area (AFHA) - The land in the floodplain within a community subject to flooding from the 1% 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.

Elevated Building - A nonbasement building built, in the case of a building in an area of special flood hazard, to have the top of the elevated floor or, in the case of a building in a coastal high-hazard area, to have the bottom of the lowest horizontal structural member of the elevated floor elevated above the ground level by means of piling, columns (posts and piers) or shear walls parallel to the flow of the water and adequately anchored so as not to impair the structural integrity of the building during a flood of up to the magnitude of the base flood, or any acceptable design solution compliant with UCC or FEMA guidelines or regulations. In an area of special flood hazard, "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of floodwaters. In areas of coastal high hazard, "elevated building" also includes a building otherwise meeting the definition of "elevated building" even though the lower area is enclosed by means of breakaway walls.

Substantial Improvement — Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent 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", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

SECTION 2. The Township Code of the Township of Stafford is hereby amended and supplemented so as to amend § 114-7, entitled, "Basis for establishing areas of special flood hazard," so as to add the following to paragraph A:

- a) "(3) Advisory Base Flood Elevations and Advisory Flood Hazard Maps titled Ship Bottom NE; Ship Bottom NW; Ship Bottom SE and Ship Bottom SW dated 12/12/12; West Creek SE and West Creek NE, both not published. 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."

SECTION 3. The Township Code of the Township of Stafford is hereby amended and supplemented so as to amend § 114-16, entitled, "General Standards," so as to replace the introductory paragraph with the following:

"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:"

SECTION 4. The Township Code of the Township of Stafford is hereby amended and supplemented so as to amend § 114-16, entitled, "General Standards," so as to replace paragraph D with the following:

"D. Subdivision or Other Development.

- (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 (50) lots or five (5) acres (whichever is less)."

SECTION 5. The Township Code of the Township of Stafford is hereby amended and supplemented so as to amend § 114-17, entitled, "Specific Standards," so as to replace paragraph A. with the following:

"A. Residential construction.

- (1) New construction and substantial improvement of any residential structure in an A or AE Zone shall have the lowest floor, including basement, together with all electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities (including ductwork), elevated to one foot or more above the base flood elevation or advisory base flood elevation, whichever is more restrictive. All portions of the building below the freeboard level must be constructed using flood-damage-resistant materials.

(2) Require within any AO zone on the municipality's FIRM that all new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated above the highest adjacent grade one foot above the depth number specified in feet (at least three feet if no depth number is specified) or at or above the advisory base flood elevation plus one foot, whichever is more restrictive. And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

SECTION 6. The Township Code of the Township of Stafford is hereby amended and supplemented so as to amend § 114-17, entitled, "Specific Standards," so as to replace paragraph B (1) and (2) with the following:

"B. Nonresidential construction.

(1) New construction and substantial improvement of any nonresidential structure in an A or AE Zone shall have the lowest floor, including basement, together with all electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities (including ductwork), elevated to one foot or more above the base flood elevation or advisory base flood elevation, whichever is more restrictive.

(2) Require within any AO zone on the municipality's DFIRM that all new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall have the lowest floor, including basement, together with all electrical, heating, ventilation, plumbing and air-conditioning equipment and other service facilities (including ductwork), elevated above the highest adjacent grade one foot above the depth number specified in feet (at least three feet if no depth number is specified) or at or above the advisory base flood elevation plus one foot, whichever is more restrictive. And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures. OR

(3) Be floodproofed so that below one foot or more above the base flood level or advisory base flood elevation, whichever is more restrictive, the structure is watertight with walls substantially impermeable to the passage of water."

SECTION 7. The Township Code of the Township of Stafford is hereby amended and supplemented so as to amend § 114-17, entitled, "Specific Standards," so as to replace paragraph C (2). with the following:

"C. Manufactured homes.

(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 one foot or more above the base flood elevation or advisory base flood elevation, whichever is more restrictive.”

SECTION 8. The Township Code of the Township of Stafford is hereby amended and supplemented so as to amend § 114-18, entitled, “Coastal High Hazard Area,” so as to replace paragraph B (1)(a) and (b) with the following:

“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 floor (excluding the piling or columns) is elevated to one foot or more above the base flood elevation, advisory base flood elevation or as required by the Uniform Construction Code (NJAC 5:23), whichever is more restrictive, and,
- (b) with all space below the lowest floor's supporting member open so as not to impede the flow of water, except for breakaway walls as provided or in 114-18 B (4).”

SECTION 9. The Township Code of the Township of Stafford is hereby amended and supplemented so as to amend § 114-18 B(4)(d), so as to replace the paragraph in its entirety with the following:

“(d) Prior to construction, plans for any breakaway wall must be submitted to the Building Sub-Code Official for approval.”

SECTION 10. All ordinances or parts of ordinances inconsistent herewith are hereby repealed.

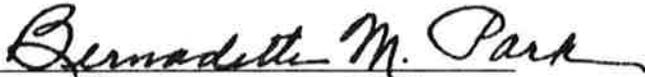
SECTION 11. If any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held to be invalid or unconstitutional by a court of competent

jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions hereof.

SECTION 12. This ordinance shall become effective after second reading and publication as required by Law.

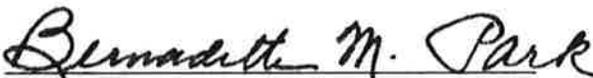
NOTICE

NOTICE IS HEREBY GIVEN that the foregoing ordinance was introduced and passed by the Township Council on first reading at a meeting of the Township Council of the Township of Stafford held on the **19th** day of **February 2013**, and will be considered for second reading and final passage at a regular meeting of the Township Council to be held on the **5th** day of **March 2013** at 7:00PM, at the Municipal Building located at 260 East Bay Avenue, Manahawkin, New Jersey, at which time and place any persons desiring to be heard upon the same will be given the opportunity to be so heard.


BERNADETTE M. PARK, RMC, CMC
Township Clerk, Township of Stafford

CERTIFICATION

I, **BERNADETTE M. PARK**, Municipal Clerk of the Township of Stafford, do hereby certify that the foregoing ordinance was duly adopted on second reading by the Stafford Township Council at a meeting held on the **5th** day of **March 2013**.


BERNADETTE M. PARK, RMC, CMC
Township Clerk, Township of Stafford

ORDINANCE NO. 2013 - 11

**ORDINANCE OF THE TOWNSHIP OF STAFFORD,
COUNTY OF OCEAN AND STATE OF NEW JERSEY,
AMENDING AND SUPPLEMENTING CHAPTER 114 OF
THE TOWNSHIP CODE OF THE TOWNSHIP OF
STAFFORD, ENTITLED "FLOOD HAZARD AREAS"**

WHEREAS, the Township of Stafford participates in the National Flood Insurance Program and has adopted certain floodplain management regulations into its code book under Chapter 114 entitled Flood Hazard Areas; and

WHEREAS, the Federal Government, from time to time, updates the Flood Insurance Rate Maps that regulate development in the Township's Special Flood Hazard Area (SFHA); and

WHEREAS, the Federal Government has released Preliminary Work Maps on June 17, 2013 which are the best available data provided by FEMA; and

WHEREAS, the Township of Stafford intends to regulate the Special Flood Hazard Area utilizing the Best Available Flood Hazard Data.

NOW, THEREFORE, BE IT ORDAINED, by the governing body of the Township of Stafford, County of Ocean and State of New Jersey, as follows:

SECTION 1. The Township Code of the Township of Stafford is hereby amended and supplemented so as to amend Chapter 114, *Flood Hazard Areas*, in its entirety and replace with the following:

"Article I. Authorization, Findings and Purpose

114-1. Statutory Authorization.

The Legislature of the State of New Jersey has in N.J.S.A. 40:48-1, et seq., delegated the responsibility to local governmental units to adopt regulations designed to promote public health, safety, and general welfare of its citizenry. Therefore, the Township of Stafford, Ocean County, New Jersey does ordain as follows:

114-2. Findings of Fact.

A. The flood hazard areas of the Township of Stafford are subject to periodic inundation which results in loss of life and property, health and safety hazards, disruption of commerce and governmental services, extraordinary public expenditures for flood protection and relief, and impairment of the tax base, all of which adversely affect the public health, safety, and general welfare.

B. These flood losses are caused by the cumulative effect of obstructions in areas of special flood hazard which increase flood heights and velocities, and when inadequately anchored, causes damage in other areas. Uses that are inadequately floodproofed, elevated or otherwise protected from flood damage also contribute to the flood loss.

114-3. Statement of Purpose.

It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- A. Protect human life and health;
- B. Minimize expenditure of public money for costly flood control projects;
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. Minimize prolonged business interruptions;
- E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;
- F. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. Ensure that potential buyers are notified that property is in an area of special flood hazard;
- and
- H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

114-4. Methods of Reducing Flood Losses.

In order to accomplish its purposes, this ordinance includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- B. Requiring that uses vulnerable to floods including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage; and,

E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

Article II. Definitions.

114-5. Terms Defined.

Unless specifically defined below, words or phrases used in this ordinance shall be interpreted so as to give them the meaning they have in common usage and to give this ordinance its most reasonable application.

Advisory Base Flood Elevation (ABFE) —The elevation shown on a community's Advisory Flood Hazard Area Map that indicates the advisory stillwater elevation plus wave effect ($ABFE = SWEL + \text{wave effect}$) resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year.

Advisory Flood Hazard Area (AFHA) —The land in the floodplain within a community subject to flooding from the 1% annual chance event depicted on the Advisory Flood Hazard Area Map.

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

Appeal — A request for a review of the Zoning Officer's interpretation of any provision of this ordinance or a request for a variance.

Area of Shallow Flooding — A designated AO, AH, or VO zone on a community's Digital Flood Insurance Rate Map (DFIRM) with a one percent annual or greater chance of flooding to an average depth of one to three feet where a clearly defined channel does not exist, where the path of flooding is unpredictable and where velocity flow may be evident. Such flooding is characterized by ponding or sheet flow.

Area of Special Flood Hazard — The land in the floodplain within a community subject to a one percent or greater chance of flooding in any given year. It is shown on the FIRM as Zone V, VE, V1-30, A, AO, A1-A30, AE, A99, or AH.

Base Flood — The flood having a one percent chance of being equaled or exceeded in any given year.

Base Flood Elevation (BFE) – The flood elevation shown on a published Flood Insurance Study (FIS) including the Flood Insurance Rate Map (FIRM). For zones AE, AH, AO, and A1-30 the elevation represents the water surface elevation resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year. For zones VE and V1-30 the elevation represents the stillwater elevation (SWEL) plus wave effect ($BFE = SWEL +$

wave effect) resulting from a flood that has a 1-percent or greater chance of being equaled or exceeded in any given year.

Basement — Any area of the building having its floor subgrade (below ground level) on all sides.

Best Available Flood Hazard Data — The most recent available flood risk guidance FEMA has provided. The Best Available Flood Hazard Data may be depicted on but not limited to Advisory Flood Hazard Area Maps, Work Maps or Preliminary FIS and FIRM.

Best Available Flood Hazard Data Elevation— The most recent available flood elevation FEMA has provided. The Best Available Flood Hazard Data Elevation may be depicted on an Advisory Flood Hazard Area Map; Work Map; or Preliminary FIS and FIRM

Breakaway Wall — A wall that is not part of the structural support of the building and is intended through its design and construction to collapse under specific lateral loading forces without causing damage to the elevated portion of the building or supporting foundation system.

Coastal High Hazard Area — An area of special flood hazard extending from offshore to the inland limit of a primary frontal dune along an open coast and any other area subject to high velocity wave action from storms or seismic sources.

Development — Any man made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations, or storage of equipment or materials located within the area of special flood hazard.

Digital Flood Insurance Rate Map (DFIRM) — The official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Elevated Building — A non-basement building (i) built, in the case of a building in an Area of Special Flood Hazard, to have the top of the elevated floor or, in the case of a building in a Coastal High-Hazard Area, to have the bottom of the lowest horizontal structural member of the elevated floor, elevated above the base flood elevation by means of piling, columns (posts and piers), or shear walls parallel to the flow of the water, and (ii) adequately anchored so as not to impair the structural integrity of the building during a flood up to the magnitude of the base flood, or any acceptable design solution compliant with UCC and FEMA guidelines or regulations. In an Area of Special Flood Hazard "elevated building" also includes a building elevated by means of fill or solid foundation perimeter walls with openings sufficient to facilitate the unimpeded movement of flood waters. In Areas of Coastal High Hazard "elevated buildings" also includes a building otherwise meeting the definition of "elevated building" even though the lower area is enclosed by means of breakaway walls.

Erosion — The process of the gradual wearing away of land masses.

Existing Manufactured Home Park or Subdivision — A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including, at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed before the effective date of the floodplain management regulations adopted by a community.

Flood or Flooding — A general and temporary condition of partial or complete inundation of normally dry land areas from:

- [1] The overflow of inland or tidal waters and/or
- [2] The unusual and rapid accumulation or runoff of surface waters from any source.

Flood Insurance Rate Map (FIRM) — The official map on which the Federal Insurance Administration has delineated both the areas of special flood hazards and the risk premium zones applicable to the community.

Flood Insurance Study (FIS) — The official report in which the Federal Insurance Administration has provided flood profiles, as well as the Flood Insurance Rate Map(s) and the water surface elevation of the base flood.

Floodplain Management Regulations — Zoning ordinances, subdivision regulations, building codes, health regulations, special purpose ordinances (such as a floodplain ordinance, grading ordinance and erosion control ordinance) and other applications of police power. The term describes such State or local regulations, in any combination thereof, which provide standards for the purpose of flood damage prevention and reduction.

Floodproofing — Any combination of structural and nonstructural additions, changes, or adjustments to structures which reduce or eliminate flood damage to real estate or improved real property, water and sanitary facilities, structures and their contents.

Floodway — The channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than 0.2 foot.

Highest Adjacent Grade — The highest natural elevation of the ground surface prior to construction next to the proposed walls of a structure.

Historic Structure — Any structure that is:

- [a] Listed individually in the National Register of Historic Places (a listing maintained by the Department of Interior) or preliminarily determined by the Secretary of the Interior as meeting the requirements for individual listing on the National Register;
- [b] Certified or preliminarily determined by the Secretary of the Interior as contributing to the historical significance of a registered historic district or a district preliminarily determined by the Secretary to qualify as a registered historic district;

- [c] Individually listed on a State inventory of historic places in States with historic preservation programs which have been approved by the Secretary of the Interior; or
- [d] Individually listed on a local inventory of historic places in communities with historic preservation programs that have been certified either:
 - (1) By an approved State program as determined by the Secretary of the Interior; or
 - (2) Directly by the Secretary of the Interior in States without approved programs.

Lowest Floor — The lowest floor of the lowest enclosed area [including basement]. An unfinished or flood resistant enclosure, useable solely for the parking of vehicles, building access or storage in an area other than a basement is not considered a building's lowest floor provided that such enclosure is not built so to render the structure in violation of other applicable non-elevation design requirements of CFR Section 60.3.

Manufactured Home — A structure, transportable in one or more sections, which is built on a permanent chassis and is designed for use with or without a permanent foundation when attached to the required utilities. The term "manufactured home" does not include a "recreational vehicle".

Manufactured Home Park or Manufactured Home Subdivision — A parcel (or contiguous parcels) of land divided into two (2) or more manufactured home lots for rent or sale.

New Construction — Structures for which the start of construction commenced on or after the effective date of a floodplain regulation adopted by a community and includes any subsequent improvements to such structures.

New Manufactured Home Park or Subdivision — A manufactured home park or subdivision for which the construction of facilities for servicing the lots on which the manufactured homes are to be affixed (including at a minimum, the installation of utilities, the construction of streets, and either final site grading or the pouring of concrete pads) is completed on or after the effective date of the floodplain management regulations adopted by the municipality.

Preliminary Flood Insurance Rate Map (PFIRM) — The draft version of the FIRM released for public comment before finalization and adoption.

Primary Frontal Dune — A continuous or nearly continuous mound or ridge of sand with relatively steep seaward and landward slopes immediately landward and adjacent to the beach and subject to erosion and overtopping from high tides and waves from coastal storms. The inland limit of the primary frontal dune occurs at the point where there is a distinct change from the relatively steep slope to a relatively mild slope.

Recreational Vehicle — A vehicle which is [i] built on a single chassis; [ii] 400 square feet or less when measured at the longest horizontal projections; [iii] designed to be self-propelled or permanently towable by a light duty truck; and [iv] designed primarily not for use as a permanent dwelling but as temporary living quarters for recreational, camping, travel, or seasonal use.

Sand Dunes — Naturally occurring or man-made accumulations of sand in ridges or mounds landward of the beach.

Start of Construction — For other than new construction or substantial improvements under the Coastal Barrier Resources Act (P.L. No. 97-348) includes substantial improvements and means the date the building permit was issued, provided the actual start of construction, repair, reconstruction, rehabilitation, addition, placement, or other improvement was within 180 days of the permit date. The actual start means either the first placement of permanent construction of a structure on a site such as the pouring of a slab or footings, the installation of piles, the construction of columns, or any work beyond the stage of excavation, or the placement of a manufactured home on a foundation.

Permanent construction does not include land preparation, such as clearing, grading and filling nor does it include the installation of streets and/or walkways, nor does it include excavation for a basement, footings or piers, or foundations or the erection of temporary forms, nor does it include the installation on the property of accessory buildings, such as garages or sheds not occupied as dwelling units or not part of the main structure. For a substantial improvement, the actual start of construction means the first alteration of any wall, ceiling, floor, or other structural part of a building, whether or not that alteration affects the external dimensions of the building.

Structure — A walled and roofed building, a manufactured home, or a gas or liquid storage tank that is principally above ground.

Substantial Damage — Damage of any origin sustained by a structure whereby the cost of restoring the structure to its condition before damage would equal or exceed 50 percent of the market value of the structure before the damage occurred.

Substantial Improvement — Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50 percent 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:

- [1] 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
- [2] Any alteration of a "historic structure", provided that the alteration will not preclude the structure's continued designation as a "historic structure".

Variance — A grant of relief from the requirements of this ordinance that permits construction in a manner that would otherwise be prohibited by this ordinance.

Violation — The failure of a structure or other development to be fully compliant with this ordinance. A new or substantially improved structure or other development without the

elevation certificate, other certifications, or other evidence of compliance required in 44 CFR §60.3(b)(5), (c)(4), (c)(10), (e)(2), (e)(4), or (e)(5) is presumed to be in violation until such time as that documentation is provided.

Article III. General Provisions.

114-6. Applicability.

This ordinance shall apply to all areas of special flood hazards within the jurisdiction of the Township of Stafford, Ocean County, New Jersey.

114-7. Basis for Establishing the Areas of Special Flood Hazard.

The areas of special flood hazard for the Township of Stafford, Community No. 340393, are identified and defined on the following documents prepared by the Federal Emergency Management Agency:

- A. A scientific and engineering report "Flood Insurance Study, Ocean County, New Jersey (All Jurisdictions)" dated September 26, 2006;
- B. Flood Insurance Rate Map for Ocean County, New Jersey (All Jurisdictions) as shown on Index and panels 0370, 0390, 0395, 0460, 0480, 0485, 0491, 0492, 0494, 0501, 0502, 0503, 0504, 0506, 0508, 0509, 0511, 0512, 0513, 0514, 0516, and 0518, whose effective date is September 26, 2006.
- C. Best Available Flood Hazard Data. These documents shall take precedence over effective panels and FIS in construction and development regulations only. Where the effective mapping or Base Flood Elevation conflict or overlap with the Best Available Flood Hazard Data, 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 260 East Bay Avenue, Manahawkin, New Jersey.

114-8. Penalties for Noncompliance.

No structure or land shall hereafter be constructed, re-located to, extended, converted, or altered without full compliance with the terms of this ordinance and other applicable regulations. Violation of the provisions of this ordinance by failure to comply with any of its requirements (including violations of conditions and safeguards established in connection with conditions) shall constitute a misdemeanor. Any person who violates this ordinance or fails to comply with any of its requirements shall upon conviction thereof be fined not more than \$1,250 or imprisoned for not more than 90 days, or both, for each violation, and in addition shall pay all costs and expenses involved in the case. Nothing herein contained shall prevent the Township of Stafford, from taking such other lawful action as is necessary to prevent or remedy any violation.

114-9. Abrogation and Greater Restrictions.

This ordinance is not intended to repeal, abrogate, or impair any existing easements, covenants, or deed restrictions. However, where this ordinance and other ordinance, easement, covenant, or deed restriction conflict or overlap, whichever imposes the more stringent restrictions shall prevail.

114-10. Interpretation.

In the interpretation and application of this ordinance, all provisions shall be:

- A. Considered as minimum requirements;
- B. Liberally construed in favor of the governing body; and,
- C. Deemed neither to limit nor repeal any other powers granted under State statutes.

114-11. Warning and Disclaimer of Liability.

The degree of flood protection required by this ordinance is considered reasonable for regulatory purposes and is based on scientific and engineering considerations. Larger floods can and will occur on rare occasions. Flood heights may be increased by man-made or natural causes. This ordinance does not imply that land outside the area of special flood hazards or uses permitted within such areas will be free from flooding or flood damages.

This ordinance shall not create liability on the part of the Township of Stafford, any officer or employee thereof or the Federal Insurance Administration, for any flood damages that result from reliance on this ordinance or any administrative decision lawfully made thereunder.

Article IV. Administration.

114-12. Establishment of Development Permit.

A Development Permit shall be obtained before construction or development begins, including placement of manufactured homes, within any area of special flood hazard established in 114-7. Application for a Development Permit shall be made on forms furnished by the local administrator and may include, but not be limited to; plans in duplicate drawn to scale showing the nature, location, dimensions, and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. Specifically, the following information is required:

- A. Elevation in relation to mean sea level, of the lowest floor (including basement) of all structures;
- B. Elevation in relation to mean sea level to which any structure has been floodproofed.
- C. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in 114-17;
- D. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development; and
- E. A permit issued under Chapter 118 for grading and drainage, if applicable.

114-12.1. Development Permit Required for Construction and Development Adjacent to Special Flood Hazard Areas.

A development permit shall be obtained before construction or development begins on any property immediately adjacent to any area of special flood hazard established in 114-7. Application for a development permit shall be made on forms furnished by the Zoning Officer and may include, but not be limited to, plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage of materials, drainage facilities; and the location of the foregoing. If FEMA has not conducted a detailed study of the adjacent special flood hazard area in question, the applicant must perform a detailed study of the special flood hazard area based on FEMA-approved techniques or specifically approved by FEMA Region II.

114-13. Designation of the Local Administrator.

The Zoning Officer is hereby appointed to administer and implement this ordinance by granting or denying development permit applications in accordance with its provisions.

114-14. Duties and Responsibilities of Enforcement.

Duties of the Zoning Officer and Construction Official shall include, but not be limited to:

A. Permit Review.

1. Review all development permits to determine that the permit requirements of this ordinance have been satisfied.
2. Review all development permits to determine that all necessary permits have been obtained from those Federal, State or local governmental agencies from which prior approval is required.
3. Review all development permits to determine if the proposed development is located in the floodway. If located in the floodway, assure that the encroachment provisions of 114-19A are met.
4. Review all development permits in the coastal high hazard area of the area of special flood hazard to determine if the proposed development alters sand dunes so as to increase potential flood damage.
5. Review plans for walls to be used to enclose space below the base flood level in accordance with 114-18.B.4.

B. Use of Other Base Flood and Floodway Data.

When base flood elevation and floodway data has not been provided in accordance with 114-7, the local administrator shall obtain, review, and reasonably utilize any base flood elevation and floodway data available from a Federal, State or other source, in order to administer 114-17 A and B.

C. Information to be Obtained and Maintained.

1. Obtain and record the actual elevation (in relation to mean sea level) of the lowest floor (including basement) of all new or substantially improved structures, and whether or not the structure contains a basement.
2. For all new or substantially improved floodproofed structures:
 - a. Verify and record the actual elevation (in relation to mean sea level); and
 - b. Maintain the floodproofing certifications required in 114-12.C.
3. In coastal high hazard areas, certification shall be obtained from a registered professional engineer or architect that the provisions of 114-18.B.1 and 114-18.B.2.a and b are met.
4. Maintain for public inspection all records pertaining to the provisions of this ordinance.

D. Alteration of Watercourses.

1. Notify adjacent communities and the New Jersey Department of Environmental Protection, Dam Safety and Flood Control Section and the Land Use Regulation Program prior to any alteration or relocation of a watercourse, and submit evidence of such notification to the Federal Insurance Administration.
2. Require that maintenance is provided within the altered or relocated portion of said watercourse so the flood carrying capacity is not diminished.

E. Interpretation of FIRM Boundaries.

Make interpretations where needed, as to the exact location of the boundaries of the areas of special flood hazards (for example, where there appears to be a conflict between a mapped boundary and actual field conditions). The person contesting the location of the boundary shall be given a reasonable opportunity to appeal the interpretation as provided in 114-15.

114-15. Variance Procedure.

A. Appeal Board

1. The Zoning Board of Adjustment as established by the Township of Stafford shall hear and decide appeals and requests for variances from the requirements of this ordinance.
2. The Zoning Board of Adjustment shall hear and decide appeals when it is alleged there is an error in any requirement, decision, or determination made by the Zoning Officer in the enforcement or administration of this ordinance.
3. Those aggrieved by the decision of the Zoning Board of Adjustment, or any taxpayer, may appeal such decision as provided by law.
4. In passing upon such applications, the Zoning Board of Adjustment, shall consider all technical evaluations, all relevant factors, standards specified in other sections of this ordinance, and:
 - a. the danger that materials may be swept onto other lands to the injury of others;
 - b. the danger to life and property due to flooding or erosion damage;
 - c. the susceptibility of the proposed facility and its contents to flood damage and the effect of such damage on the individual owner;
 - d. the importance of the services provided by the proposed facility to the community;

- e. the necessity to the facility of a waterfront location, where applicable;
 - f. the availability of alternative locations for the proposed use which are not subject to flooding or erosion damage;
 - g. the compatibility of the proposed use with existing and anticipated development;
 - h. the relationship of the proposed use to the comprehensive plan and floodplain management program of that area;
 - i. the safety of access to the property in times of flood for ordinary and emergency vehicles;
 - j. the expected heights, velocity, duration, rate of rise, and sediment transport of the flood waters and the effects of wave action, if applicable, expected at the site; and,
 - k. the costs of providing governmental services during and after flood conditions, including maintenance and repair of public utilities and facilities such as sewer, gas, electrical, and water systems, and streets and bridges.
5. Upon consideration of the factors of 114-15A.4. and the purposes of this ordinance, the Zoning Board of Adjustment may attach such conditions to the granting of variances as it deems necessary to further the purposes of this ordinance.
6. The Zoning Officer shall maintain the records of all appeal actions, including technical information, and report any variances to the Federal Insurance Administration upon request.

B. Conditions For Variances.

1. Generally, variances may be issued for new construction and substantial improvements to be erected on a lot of one-half acre or less in size contiguous to and surrounded by lots with existing structures constructed below the base flood level, providing items in 114-15.A.4. have been fully considered. As the lot size increases beyond the one-half acre, the technical justification required for issuing the variance increases.
2. Variances may be issued for the repair or rehabilitation of historic structures upon a determination that the proposed repair or rehabilitation will not preclude the structure's continued designation as a historic structure and the variance is the minimum necessary to preserve the historic character and design of the structure.
3. Variances shall not be issued within any designated floodway if any increase in flood levels during the base flood discharge would result.
4. Variances shall only be issued upon a determination that the variance is the minimum necessary, considering the flood hazard, to afford relief.
5. Variances shall only be issued upon:
 - a. A showing of good and sufficient cause;
 - b. A determination that failure to grant the variance would result in exceptional hardship to the applicant; and,
 - c. A determination that the granting of a variance will not result in increased flood heights, additional threats to public safety, extraordinary public expense, create nuisances, cause fraud on or victimization of the public as identified in 114-15A.4., or conflict with existing local laws or ordinances.
6. Any applicant to whom a variance is granted shall be given written notice that the structure will be permitted to be built with a lowest floor elevation below the base flood elevation and that

the cost of flood insurance will be commensurate with the increased risk resulting from the reduced lowest floor elevation.

Article V. Provisions for Flood Hazard Reduction.

114-16. 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:

A. Anchoring.

1. All new construction and substantial improvements shall be anchored to prevent flotation, collapse, or lateral movement of the structure.
2. All manufactured homes to be placed or substantially improved shall be anchored to resist flotation, collapse or lateral movement. Methods of anchoring may include, but are not to be limited to, use of over-the-top or frame ties to ground anchors. This requirement is in addition to applicable state and local anchoring requirements for resisting wind forces.

B. Construction Materials and Methods.

1. All new construction and substantial improvements shall be constructed with materials and utility equipment resistant to flood damage.
2. All new construction and substantial improvements shall be constructed using methods and practices that minimize flood damage.

C. Utilities.

1. All new and replacement water supply systems shall be designed to minimize or eliminate infiltration of flood waters into the system;
2. New and replacement sanitary sewage systems shall be designed to minimize or eliminate infiltration of flood waters into the systems and discharge from the systems into flood waters;
3. On-site waste disposal systems shall be located to avoid impairment to them or contamination from them during flooding; and
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.
5. All utility connections other than State-regulated utilities shall be at or above the base flood elevation.

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 (50) lots or five (5) acres (whichever is less).

E. Enclosure Openings.

All new construction and substantial improvements having fully enclosed areas below the lowest floor that are usable solely for parking of vehicles, building access or storage in an area other than a basement and which are subject to flooding shall be designed to automatically equalize hydrostatic flood forces on exterior walls by allowing for the entry and exit of floodwaters. Designs for meeting this requirement must either be certified by a registered professional engineer or architect or must meet or exceed the following minimum criteria:

1. A minimum of two (2) openings having a total net area of not less than one (1) square inch for every square foot of enclosed area subject to flooding shall be provided.
2. The bottom of all openings shall be no higher than one (1) foot above grade.
3. Openings may be equipped with screens, louvers, or other covering or devices provided that they permit the automatic entry and exit of floodwaters.

114-17. Specific Standards.

In all areas of special flood hazards where base flood elevation data have been provided as set forth in 114-7 or 114-14B, the following standards are required:

A. Residential Construction.

1. New construction and substantial improvement of any residential structure located in an A or AE zone shall have the lowest floor, including basement, elevated at or above the base flood elevation (published FIS/FIRM) or the best available flood hazard data elevation, whichever is more restrictive, plus one foot;
2. Require within any AO zone on the Township's FIRM, that all new construction and substantial improvement of any residential structure shall have the lowest floor, including basement, elevated above the highest adjacent grade one foot above the depth number specified in feet (at least three feet if no depth number is specified) or at or above the best available flood hazard data elevation plus one foot, whichever is more restrictive. And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures.

B. Non-Residential Construction.

In an Area of Special Flood Hazard, all new construction and substantial improvement of any commercial, industrial or other nonresidential structure located in an A or AE zone shall have the lowest floor:

Either

1. Elevated to or above the base flood elevation (published FIS/FIRM) or the best available flood hazard data elevation whichever is more restrictive, plus one foot; and
2. Require within any AO zone on the municipality's DFIRM that all new construction and substantial improvement of any commercial, industrial or other nonresidential structure shall have the lowest floor, including basement, elevated above the highest adjacent grade one foot above the depth number specified in feet (at least three feet if no depth number is specified) or at or above the best available flood hazard data elevation plus one foot, whichever is more restrictive. And, require adequate drainage paths around structures on slopes to guide floodwaters around and away from proposed structures;

OR

1. Be floodproofed so that below the base flood level plus one foot, or the best available flood hazard data elevation plus one foot, (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 114-14.C.2.b.

C. Manufactured Homes.

1. Manufactured homes shall be anchored in accordance with 114-16.A.2; and,
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 flood elevation (published FIS/FIRM) or the best available flood hazard data elevation, plus one foot (whichever is more restrictive).

114-18. Coastal High Hazard Area

Coastal high hazard areas (V or VE Zones) are located within the areas of special flood hazard established in 114-7. 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 subdivision.

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 floor (excluding the piling or columns) is elevated to or above the base flood elevation (published FIS/FIRM), the best available flood hazard data 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 open so as not to impede the flow of water, except for breakaway walls as provided or in 114-18.B.4.

2. Structural Support.

- a. All new construction and substantial improvements shall be securely anchored on piling or columns.
- b. The pile or column foundation and structure attached thereto shall be anchored to resist flotation, collapse or lateral movement due to the effects of wind and water loading values each of which shall have a one percent chance of being equaled or exceeded in any given year (100-year mean recurrence interval).
- c. There shall be no fill used for structural support.

3. Certification.

A registered professional engineer or architect shall develop or review the structural design specifications and plans for the construction and shall certify that the design and methods of construction to be used are in accordance with accepted standards of practice for compliance with the provisions of 114-18.B.1 and 114-18.B.2.a and b.

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 wood 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 10 and no more than 20 pounds per square foot. Use of breakaway walls which exceed a design safe loading of 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.
 - i. breakaway wall collapse shall result from a water load less than that which would occur during the base flood and,

- ii. 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 Construction Code Official or Building Sub-Code Official for approval.

114-19. Floodways.

Located within areas of special flood hazard established in 114-7 are areas designated as floodways. Since the floodway is an extremely hazardous area due to the velocity of flood waters which carry debris, potential projectiles, and erosion potential, the following provisions apply:

- A. Prohibit encroachments, including fill, new construction, substantial improvements, and other development unless a technical evaluation demonstrates that encroachment shall not result in any increase in flood levels during the occurrence of the base flood discharge.
- B. If 114-19.A is satisfied, all new construction and substantial improvements must comply with Article V.
- C. In all areas of special flood hazard in which base flood elevation data has been provided and no floodway has been designated, the cumulative effect of any proposed development, when combined with all other existing and anticipated development, shall not increase the water surface elevation of the base flood more than two-tenths (0.2) of a foot at any point.”

SECTION 2. All ordinances or parts of ordinances inconsistent herewith are hereby repealed.

SECTION 3. If any section, subsection, sentence, clause, phrase or portion of this ordinance is for any reason held to be invalid or unconstitutional by a court of competent jurisdiction, such portion shall be deemed a separate, distinct and independent provision, and such holding shall not affect the validity of the remaining portions hereof.

SECTION 4. This ordinance shall become effective after second reading and publication as required by Law.

NOTICE

NOTICE IS HEREBY GIVEN that the foregoing ordinance was introduced and passed by the Township Council on first reading at a meeting of the Township Council of the Township of Stafford held on the 18th day of June, 2013, and will be considered for second reading and final passage at a regular meeting of the Township Council to be held on the 9th day of July, 2013 at 7:00PM, at the Municipal Building located at 260 East Bay Avenue, Manahawkin, New Jersey, at which time and place any persons desiring to be heard upon the same will be given the opportunity to be so heard.


BERNADETTE M. PARK, RMC, CMC
Township Clerk, Township of Stafford

CERTIFICATION

I, **BERNADETTE M. PARK**, Municipal Clerk of the Township of Stafford, do hereby certify that the foregoing ordinance was duly adopted on second reading by the Stafford Township Council at a meeting held on the 9th day of July, 2013.


BERNADETTE M. PARK, RMC, CMC
Township Clerk, Township of Stafford

Stafford Township

Ocean County, New Jersey
Substantial Damage Determinations
and Repetitive Loss Data

Super Storm Sandy
FEIMA-4086-DR-NJ



Symbol Legend

- X Repetitive Loss
- X Substantial Damage Determination
- X Repetitive Loss & Substantial Damage





FILE

Chris Christie
Governor

State of New Jersey
OFFICE OF THE ATTORNEY GENERAL
DEPARTMENT OF LAW AND PUBLIC SAFETY
DIVISION OF STATE POLICE
POST OFFICE BOX 7068
WEST TRENTON NJ 08628-0068
(609) 882-2000

John J. Hoffman
Acting Attorney General

COLONEL JOSEPH R. FUENTES
Superintendent

August 15, 2013

Chief Joseph Giberson
Coordinator
Stafford Township OEM
260 E. Bay Ave.
Manahawkin, NJ 08050

Dear Chief Giberson:

We have reviewed your **Emergency Operations Plan** and find that it meets our criteria for approval as of July 25, 2013. We are pleased to give our approval and appreciate the time and effort you and your staff have devoted to the development of this essential document.

The plan should be updated by you at least annually, preferably during a scheduled meeting of your Local Emergency Planning Committee (LEPC) and must be submitted to this office, through channels, for recertification by **July 25, 2017**.

For additional information concerning the review process, you may contact your Regional Representative, Sgt. T. J. Wagner at (201) 247-0147.

Thank you for your interest and participation in Emergency Management.

FOR COLONEL JOSEPH R. FUENTES
SUPERINTENDENT

Sincerely,

Daniel Mitten, Acting Major
Commanding Officer
Emergency Management Section

DM:tw

cc: Lt. Keith Klements, Ocean County OEM Deputy Coordinator
A/SFC J. Dunham, Central Region Assistant Unit Head



RESOLUTION 2012-227

RESOLUTION OF THE TOWNSHIP OF STAFFORD, COUNTY OF OCEAN, STATE OF NEW JERSEY, AUTHORIZING THE PREPARATION OF A FLOODPLAIN MANAGEMENT PLAN AND APPOINTING MEMBERS OF THE FLOODPLAIN MANAGEMENT COMMITTEE

WHEREAS, the Township participates in the National Flood Insurance Program's (NFIP) Community Rating System (CRS) program, having achieved a Class 6 rating which entitles Township policy holders up to a 20% discount on their flood insurance premiums;

WHEREAS, the Township is recertified annually in order to retain its Class 6 rating and is required to provide certain documentation and information to the recertifying agency;

WHEREAS, due to the fact that the Township has numerous repetitive loss properties, the Township is also required to prepare a Floodplain Management Plan every five years, the last Plan having been adopted in January 2007; and

WHEREAS, the Township desires to create a Floodplain Management Committee to prepare an updated Floodplain Management Plan pursuant to current CRS Regulations.

NOW THEREFORE BE IT RESOLVED, on this 4th day of September 2012, by the Township Council of the Township of Stafford, County of Ocean and State of New Jersey, that:

1. The Township hereby creates a Floodplain Management Committee and the following are hereby appointed to said Committee:
James A. Moran, Township Administrator
Bonnie N. Flynn, PP, AICP – Director of Community Development
Robert A. Gaestel, Jr. – Construction Code Official
Jeffrey S. Pharo – Deputy Director of Community Development
Ronald A. Cop – Superintendent of Public Works
Chief Joseph Giberson, III – Emergency Management
Five residents of Stafford Township to be appointed by the Mayor

2. The Township Council authorizes the Floodplain Management Committee to prepare an updated Floodplain Management Plan pursuant to current Community Rating System regulations as found in section 510 of the CRS Coordinator's Manual (2007).

CERTIFICATION

I, **BERNADETTE M. PARK**, Municipal Clerk of the Township of Stafford, do hereby certify that the foregoing Resolution was duly adopted by the Stafford Township Council at a meeting held on the 4th day of September, 2012.


BERNADETTE M. PARK, RMC, CMC
Township Clerk, Township of Stafford

◆ TOWNSHIP OF STAFFORD ◆

260 East Bay Avenue, Manahawkin, New Jersey 08050-3329
www.staffordnj.gov

Community Development Department – Zoning Department
Main Telephone · (609) 597-1000 x 8535 Fax · (609) 978-9612

Stafford Township is updating its Floodplain Management Plan

Workshops are being held for public input

Wednesday, September 18th from 2pm-4pm

Wednesday, September 25th from 5pm-7pm

For more information, go to the Township's website,
www.staffordnj.gov

This update is part of the work Stafford undertakes in connection with the Community Rating System or CRS program. The U.S. Congress established the National Flood Insurance Program (NFIP) with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program, under the Federal Emergency Management Agency (FEMA), enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Stafford has been involved in the NFIP's CRS program since 1991. CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP standards. As a result, flood insurance policy holders receive a discount on their annual premiums depending on their flood zone and elevation of the insured structure together with the Township's CRS classification. Stafford has reached a Class 6 rating which provides for up to a 20% discount for policyholders. This is a savings of over \$800,000 for property owners throughout the Township.

Affidavit of Publication

Publisher's Fee \$12.00 Affidavit \$35.00

State of New Jersey } **SS.**
Monmouth/Ocean Counties

Personally appeared *Darryl Wenner*

Of the **Asbury Park Press**, a newspaper printed in Freehold, New Jersey and published in Neptune, in said County and State, and of general circulation in said county, who being duly sworn, depose and saith that the advertisement of which the annexed is a true copy, has been published in the said newspaper 1 times, once in each issue as follows:

9/12/13

[Signature]
A.D. 2013

Sworn and subscribed before me, this
12 day of **September, 2013**

Kathleen A. Gibson
Notary Public of New Jersey

TOWNSHIP OF STAFFORD

As part of the CRS program, Stafford Township is required to update its Floodplain Management Plan every five years. The Township is holding 2 workshops for public input on Wednesday, September 18th from 2pm-4pm and Wednesday, September 25th from 5pm-7pm. For more information, go to the Township's website, www.staffordnj.gov.
(\$12.00) 844574

Kathleen A. Gibson
Notary Public State of New Jersey
My Commission Expires Dec. 18, 2014

Excerpt from Township Code 114 – Flood Hazard Areas

114-3. Statement of Purpose.

It is the purpose of this ordinance to promote the public health, safety, and general welfare, and to minimize public and private losses due to flood conditions in specific areas by provisions designed to:

- A. Protect human life and health;
- B. Minimize expenditure of public money for costly flood control projects;
- C. Minimize the need for rescue and relief efforts associated with flooding and generally undertaken at the expense of the general public;
- D. Minimize prolonged business interruptions;
- E. Minimize damage to public facilities and utilities such as water and gas mains, electric, telephone and sewer lines, streets, bridges located in areas of special flood hazard;
- F. Help maintain a stable tax base by providing for the second use and development of areas of special flood hazard so as to minimize future flood blight areas;
- G. Ensure that potential buyers are notified that property is in an area of special flood hazard; and
- H. Ensure that those who occupy the areas of special flood hazard assume responsibility for their actions.

114-4. Methods of Reducing Flood Losses.

In order to accomplish its purposes, this ordinance includes methods and provisions for:

- A. Restricting or prohibiting uses which are dangerous to health, safety, and property due to water or erosion hazards, or which result in damaging increases in erosion or in flood heights or velocities;
- B. Requiring that uses vulnerable to floods including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- C. Controlling the alteration of natural floodplains, stream channels, and natural protective barriers, which help accommodate or channel flood waters;
- D. Controlling filling, grading, dredging, and other development which may increase flood damage; and,
- E. Preventing or regulating the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards in other areas.

Steps to Create Floodplain Management Plan

Public Portion/Committee Action

Assess the hazard.

- a. Plan includes an assessment of the flood hazard with:
 - (1) A map of known flood hazards (5)
 - (2) A description of known flood hazard (5)
 - (3) A discussion of past floods (5)
- b. The plan describes other natural hazards (5)

Assess the problem.

- a. Summary of each hazard identified in the hazard assessment and their community impact (2)
- b. Description of the impact of the hazards on:
 - (1) Life, safety, health, procedures for warning and evacuation (5)
 - (2) Critical facilities and infrastructure (5)
 - (3) The community's economy and tax base (5)
- c. Number and types of buildings subject to the hazards (5)
- d. Review of all flood insurance claims (4)
- e. Natural and beneficial functions (4)
- f. Development, redevelopment, and population trends (5)

Set goals. (2)

Review possible activities.

- a. Preventive activities (5)
- b. Property protection activities (5)
- c. Natural resource protection activities (5)
- d. Emergency services activities (5)
- e. Structural projects (5)
- f. Public information activities (5)



SCHOOR DEPALMA
Engineers and Consultants

FLOODPLAIN MANAGEMENT PLAN
TOWNSHIP OF STAFFORD
COUNTY OF OCEAN, NEW JERSEY

Prepared for:
Stafford Township
260 East Bay Avenue
Manahawkin, New Jersey 08050

Prepared by:
Schoor DePalma, Inc.
200 Route 9
Manalapan, New Jersey 07726


David Roberts, P.P., A.I.C.P.

020281501
Revised 01/22/07

QualityFirst

703 Mill Creek Road | Suite A | Manahawkin, NJ 08050
tel 609.597.3123 | fax 609.597.8978 | www.schoordepalma.com

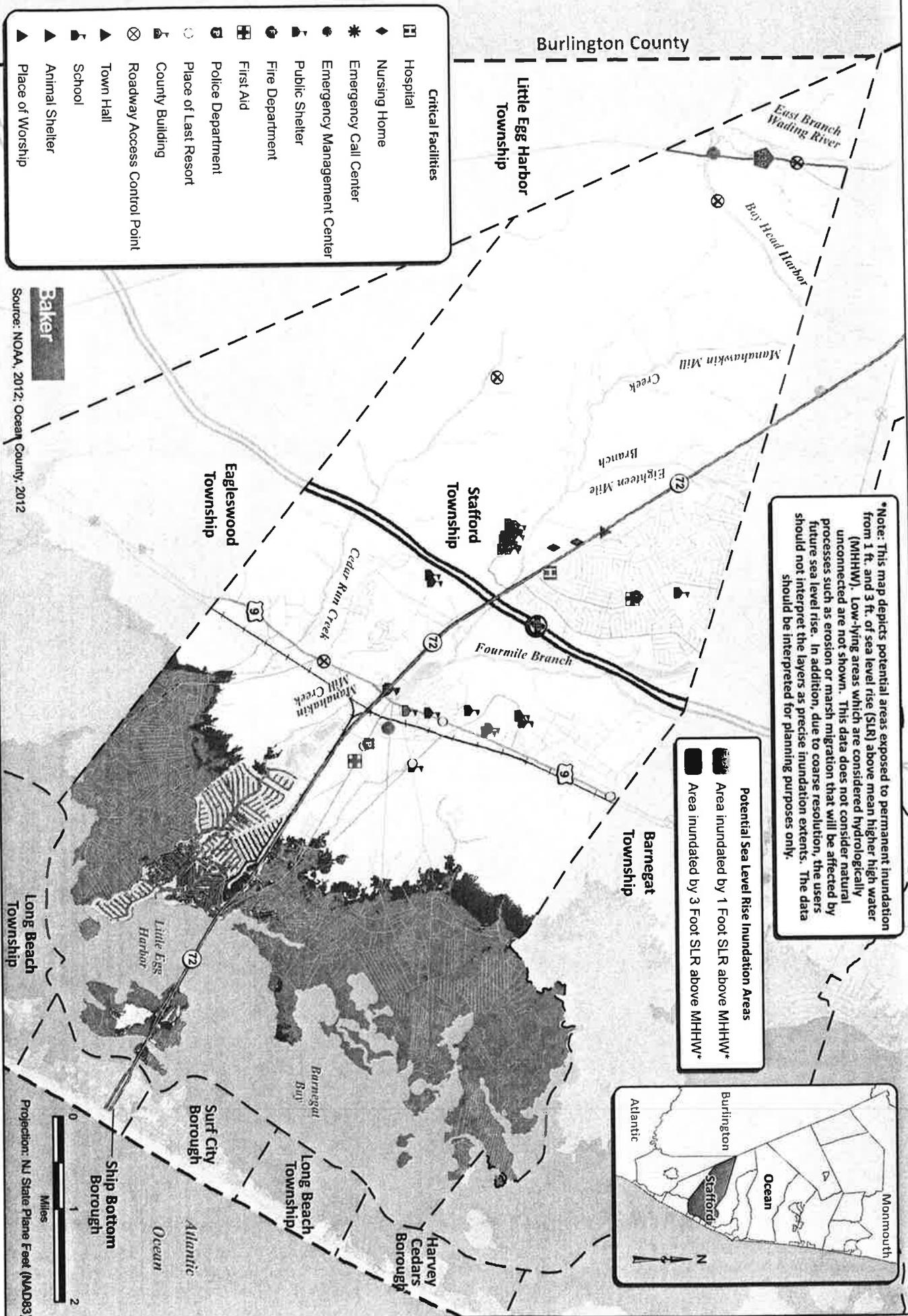
New Jersey Pennsylvania New York Florida Arizona Maryland

Advantage Engineering - A division of Schoor DePalma | CMX Inc. - A subsidiary of Schoor DePalma | Damiano Long - A division of Schoor DePalma



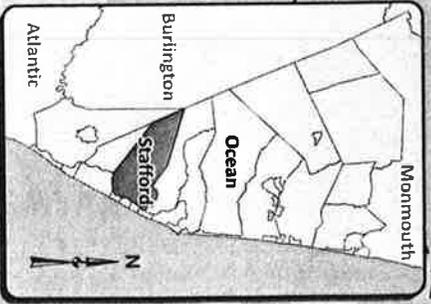
- Critical Facilities**
- ☒ Hospital
 - ◆ Nursing Home
 - ✱ Emergency Call Center
 - Emergency Management Center
 - ☪ Public Shelter
 - 🚒 Fire Department
 - 👮 First Aid
 - 👮 Police Department
 - ⊙ Place of Last Resort
 - ⊙ County Building
 - ⊙ Roadway Access Control Point
 - 🏛️ Town Hall
 - 🎓 School
 - 🏠 Animal Shelter
 - ⚓ Place of Worship

Baker
 Source: NOAA, 2012; Ocean County, 2012



*Note: This map depicts potential areas exposed to permanent inundation from 1 ft. and 3 ft. of sea level rise (SLR) above mean higher high water (MHHW). Low-lying areas which are considered hydrologically unconnected are not shown. This data does not consider natural processes such as erosion or marsh migration that will be affected by future sea level rise. In addition, due to coarse resolution, the users should not interpret the layers as precise inundation extents. The data should be interpreted for planning purposes only.

Potential Sea Level Rise Inundation Areas
 Area Inundated by 1 Foot SLR above MHHW*
 Area Inundated by 3 Foot SLR above MHHW*

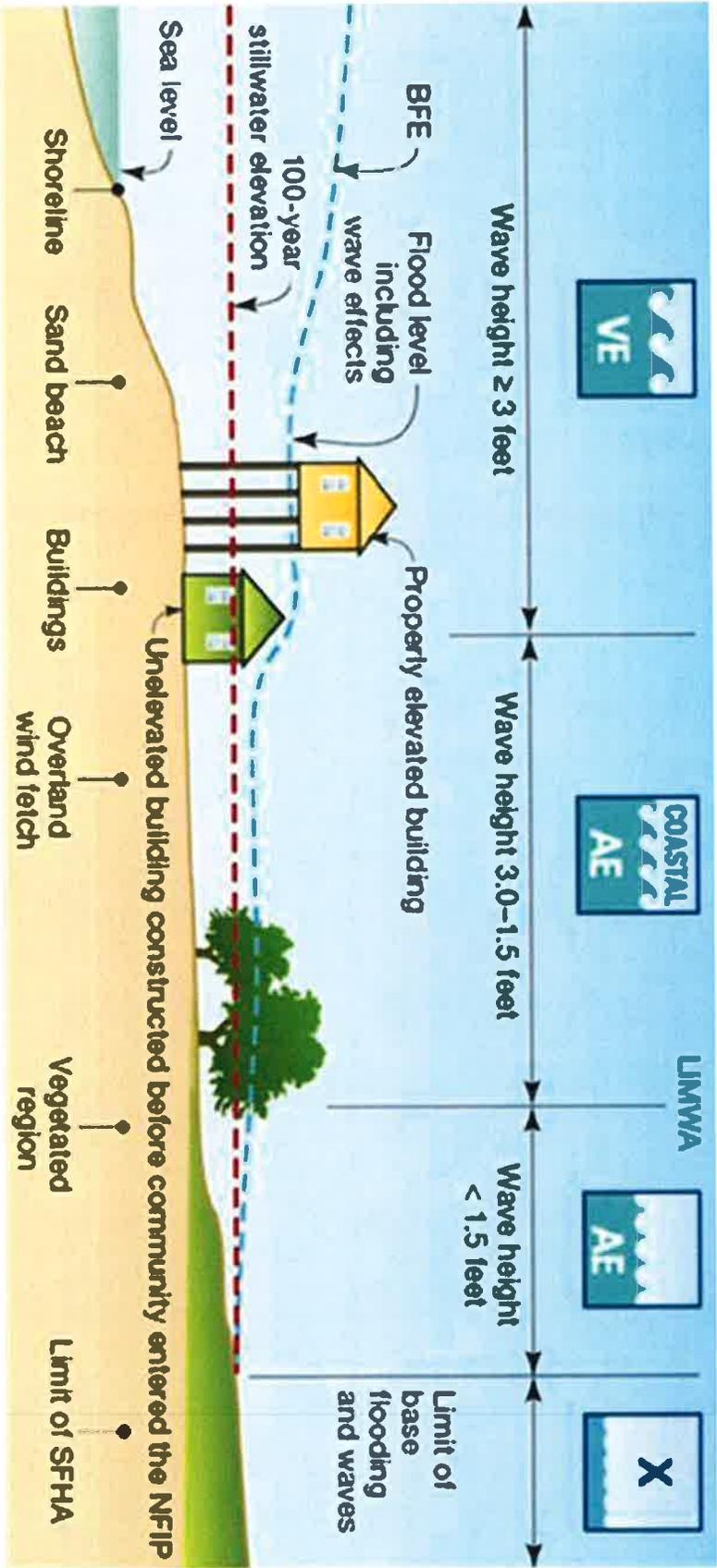


Projection: NJ State Plane Feet (NAD83)
 0 1 2
 Miles

Ocean County Hazard Mitigation Plan

Stafford Township Sea Level Rise Vulnerability







FEMA

FEDERAL INSURANCE AND MITIGATION ADMINISTRATION

Floodplain Management

THE NATIONAL FLOOD INSURANCE PROGRAM

The National Flood Insurance Program (NFIP) was established with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program enabling property owners in participating communities to purchase flood insurance as protection against flood losses, while requiring State and local governments to enforce floodplain management regulations that reduce future flood damages. Over 20,000 communities participate in the NFIP.

THE NFIP AND FLOODPLAIN MANAGEMENT

Floodplain management is broadly defined to include all actions that States and communities can take to reduce flood damage to both new and existing buildings and infrastructure. The NFIP plays a critical role in encouraging communities to adopt and enforce floodplain management regulations and to implement broader floodplain management programs. By law, the Federal Emergency Management Agency (FEMA) can only provide flood insurance to those States or communities that adopt and vigorously enforce floodplain management regulations that meet or exceed minimum NFIP requirements.

MANAGING FLOOD RISK THROUGH THE NFIP

Communities incorporate NFIP requirements into their zoning codes, subdivision ordinances, and/or building codes or they adopt special purpose floodplain management ordinances. The NFIP requirements apply to areas mapped as Special Flood Hazard Areas (SFHAs) on Flood Insurance Rate Maps (FIRMs) issued by FEMA. The SFHA is the area that would be flooded by the “base flood” (defined as the flood that has a 1-percent chance of occurring in any given year; also known as the “100-year flood”).

The NFIP requirements include:

- Elevation of new and substantially improved residential structures above the base flood level

- Elevation or dry floodproofing (made watertight) of new or substantially improved non-residential structures
- Regulation of development in floodways, the central portion of a riverine floodplain needed to carry deeper and faster moving water, to ensure that there are no increases in upstream flood elevations
- Additional requirements to protect buildings in coastal areas from the impacts of waves, high velocity, and storm surge

These requirements are the most cost-effective way to reduce the flood risk to new buildings and infrastructure. Structures built to NFIP standards experience 80 percent less damage than structures not built to these standards and have resulted in \$1.2 billion per year in reduced flood losses.

FLOODPLAIN MANAGEMENT AND HURRICANES

FEMA works closely with communities impacted by disasters by providing technical assistance and resources about mitigation measures to protect property from future flood losses. In particular, FEMA provides assistance on NFIP floodplain management requirements, including substantial damage provisions that require heavily damaged buildings to be reconstructed to be stronger and safer. FEMA also works closely with communities on reconstruction strategies to determine the most appropriate mitigation measures to reduce future flood damages, including elevation, acquisition, or relocation of flood-damaged properties. The ultimate goal is to achieve a less vulnerable community.



FEMA

In addition to protecting new buildings, the NFIP substantial improvement and substantial damage requirement ensures that flood protection measures are integrated in structures built before FIRMs were developed. A building is considered substantially improved or substantially damaged when the cost of improving or repairing the building equals or exceeds 50 percent of the market value of the building. When this occurs, the community, which makes the determination, must ensure that the NFIP requirements are applied to these buildings so that they are protected from future flood damages.

FINANCIAL HELP IS AVAILABLE

Financial help to mitigate damages to existing buildings is provided under the NFIP's Increased Cost of Compliance (ICC) coverage. When a community declares a building substantially damaged or repetitively damaged, insured property owners can receive a claim up to \$30,000 to incorporate mitigation measures when rebuilding. To help reduce flood damages to existing buildings, FEMA also provides grants and technical assistance to States and communities to conduct mitigation planning and implement mitigation projects.

THE COMMUNITY RATING SYSTEM

The NFIP's Community Rating System (CRS) provides discounts on flood insurance premiums in those communities that establish floodplain management programs that go beyond NFIP minimum requirements. Communities can receive credit for more restrictive regulations, acquiring flood-prone properties, and other measures that reduce flood damages and protect floodplains. Over 1,000 communities now participate in the CRS and are taking action to reduce their vulnerability to flooding.

INTERGOVERNMENTAL COLLABORATION

All levels of government have a responsibility to protect citizens and property from flooding. Under the NFIP, the States' and FEMA's roles, include:

State Role: Each State has designated an NFIP State Coordinating Agency as a point of contact for the NFIP. Many States have adopted floodplain management statutes and regulations, and have established and funded their own floodplain management programs. In addition, FEMA offers funding to States to provide technical assistance to communities on the NFIP requirements.

FEMA's Role: FEMA administers the NFIP through its 10 Regional Offices and its Federal Insurance and Mitigation Administration at FEMA Headquarters in Washington, DC. FEMA staff provide extensive technical assistance and training through workshops, visits, and other contacts with community officials. In addition, FEMA staff offer technical assistance to property owners, builders and contractors, architects and engineers, surveyors, and other NFIP constituents on NFIP requirements and mitigation measures. FEMA also has extensive publications on the NFIP, including detailed guidance on mitigation measures that can minimize or eliminate future flood damages. These publications can be found on FEMA's website at: <http://www.fema.gov>.





FEMA

FEDERAL INSURANCE AND MITIGATION ADMINISTRATION

Community Rating System

The National Flood Insurance Program's (NFIP's) Community Rating System (CRS) was implemented in 1990 as a voluntary program for recognizing and encouraging community floodplain management activities exceeding the NFIP's minimum standards. Any community that is in full compliance with the NFIP's minimum floodplain management requirements may apply to join the CRS.

1,148 COMMUNITIES PARTICIPATE IN THE CRS

Nearly 3.4 million policyholders in 1,148 communities participate in the CRS by implementing local mitigation, floodplain management, and outreach activities that go beyond minimum NFIP requirements.

Under the CRS, flood insurance premium rates are discounted to reward community actions meeting the three goals of the CRS, which are (1) reduce flood damage to insurable property, (2) strengthen and support the insurance aspects of the NFIP, and (3) encourage a comprehensive approach to floodplain management.

Although CRS communities represent less than 5 percent of the over 21,000 communities participating in the NFIP, more than 67 percent of all flood insurance policies are written in CRS communities.

CRS CLASSES

Similar to fire insurance, the CRS uses a class rating system to determine flood insurance premium reductions for residents. CRS classes* are rated from 10 to 1. A community that does not apply for the CRS or that does not maintain the minimum number of credit points would be considered a Class 10 community. Today, most communities enter the program at a Class 9 rating, which entitles residents in Special Flood Hazard Areas (SFHAs) to a 5 percent discount on their flood insurance premiums. As a community engages in additional mitigation activities, its NFIP policyholders become eligible for increased premium discounts. Each class improvement produces a 5 percent greater discount on flood insurance premiums for

properties in the SFHA, with a Class 1 community receiving the maximum 45 percent premium reduction.

BEST OF THE BEST

Four communities occupy the highest levels of the CRS. Each has developed a floodplain management program tailored to its own particular hazards, character, and goals. Under those programs, all the communities carry out numerous and varied activities, many of which are credited by the CRS. The average discount in policyholder premiums varies according to a community's CRS class and the average amount of insurance coverage in place. Some highlights:

Roseville, California, was the first to reach the highest CRS rating (Class 1). Damaging floods in 1995 spurred Roseville to strengthen and broaden its floodplain management program. Today the City earns points in almost all of the CRS's creditable activities. The average premium discount for policies in the Special Flood Hazard Area (SFHA) is \$768.

Comprehensive planning for floodplain management has been a key contributor to **Tulsa, Oklahoma's** progress in reducing flood damage from the dozens of creeks within its jurisdiction. The City (Class 2) has cleared more than 900 buildings from its floodplains. The average premium discount for policies in the SFHA is \$461.

King County, Washington (Class 2), has preserved more than 100,000 acres of floodplain open space and receives additional CRS credit for maintaining it in a natural state. The average premium discount for policies in the SFHA is \$381.

Pierce County, Washington (Class 3), maintains over 80 miles of river levees. One of its public outreach tasks is mailing informational brochures to all floodplain residents annually. The average premium discount for policies in the SFHA is \$381.



FEMA

CRS CREDIT

A community accrues points to improve its CRS class rating and receive increasingly higher discounts. Points are awarded for engaging in any of 18 creditable activities, organized under four categories:

- Public information
- Mapping and regulations
- Flood damage reduction
- Flood preparation

Formulas and adjustment factors are used to calculate credit points for each activity.

The communities listed below are among those that have qualified for the greatest premium discounts:

Class 1: Roseville, California

Class 2: Tulsa, Oklahoma
King County, Washington

Class 3: Pierce County, Washington

Class 4: Fort Collins, Colorado
Skagit County, Washington
Snohomish County, Washington
Charleston County, South Carolina
Sacramento County, California

BENEFITS OF THE CRS

Lower cost flood insurance rates are only one of the rewards a community receives from participating in the CRS. Other benefits include:

- Citizens and property owners in CRS communities have increased opportunities to learn about risk, evaluate their individual vulnerabilities, and take action to protect themselves, as well as their homes and businesses.
- CRS floodplain management activities provide enhanced public safety, reduced damage to property and public infrastructure, and avoidance of economic disruption and loss.
- Communities can evaluate the effectiveness of their flood programs against a nationally recognized benchmark.
- Technical assistance in designing and implementing some activities is available to community officials at no charge.

- CRS communities have incentives to maintain and improve their flood programs over time.

HOW TO APPLY

To apply for CRS participation, a community must initially inform the Federal Emergency Management Agency (FEMA) Regional Office of its interest in applying to the CRS and will eventually submit a CRS application, along with documentation that shows it is implementing the activities for which credit is requested. The application is submitted to the Insurance Services Office, Inc. (ISO)/CRS Specialist. ISO works on behalf of FEMA and insurance companies to review CRS applications, verify communities' credit points, and perform program improvement tasks.

A community's activities and performance are reviewed during a verification visit. FEMA establishes the credit to be granted and notifies the community, the State, insurance companies, and other appropriate parties.

Each year, the community must verify that it is continuing to perform the activities that are being credited by the CRS. In addition, a community can continue to improve its class rating by undertaking new mitigation and floodplain management activities that earn even more points.

CRS TRAINING

CRS specialists are available to assist community officials in applying to the program and in designing, implementing and documenting the activities that earn even greater premium discounts. In addition, a week-long CRS course for local officials is offered for free at FEMA's Emergency Management Institute (EMI) located on the National Emergency Training Center campus in Emmitsburg, Maryland, and can be field deployed in interested states.

FOR MORE INFORMATION

A list of resources is available at the CRS website: <http://www.fema.gov/nfip/crs.shtm>. For more information about the CRS or to obtain the CRS application, contact the Insurance Services Office by phone at (317) 848-2898 or by e-mail at nfipcrs@iso.com.



FEMA



FEDERAL INSURANCE AND MITIGATION ADMINISTRATION

National Flood Insurance Program



FINANCIAL PREPARATION FOR A FLOOD

The National Flood Insurance Program (NFIP) was established with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program enabling property owners in participating communities to purchase flood insurance as protection against flood losses; in exchange, State and local governments agree to adopt and enforce floodplain management ordinances that reduce future flood damages. Over 20,300 communities participate in the NFIP.

FINANCIAL PROTECTION AGAINST FLOOD LOSS

Floods are the most common and costly natural disaster in the United States. Fortunately, property owners who live in communities participating in the NFIP can purchase affordable protection to insure against flood losses. Since 1969, the NFIP has paid over \$30 billion dollars in flood insurance claims that have helped hundreds of thousands of families and businesses recover from flood events.

To participate in the NFIP, a community must adopt and enforce floodplain management ordinances that meet or exceed the minimum requirements of the Program. These requirements are intended to prevent loss of life and property and reduce taxpayer costs for disaster relief, as well as minimize economic and social hardships that result from flooding. The specific requirements that a community must adopt depend on the level of risk identified by the community.

The NFIP has an arrangement with private insurance companies to sell and service flood insurance policies. For a list of private insurance companies that sell and service NFIP flood insurance policies, visit: <http://www.fema.gov/nfipInsurance/companies.jsp>.

MYTHS AND MISCONCEPTIONS

A common misconception is that homeowners' policies cover flood damages. In fact, most homeowner and business multiperil policies do not cover flooding. In addition, Federal disaster assistance will not always pay for flood damages. The President must declare a major disaster before most forms of Federal disaster assistance can be offered, and most forms of disaster assistance are loans that must be repaid with interest. The premium for an NFIP policy, averaging about \$500 a year, can be less expensive than the monthly payments on a Federal disaster loan.

WHO IS ELIGIBLE

Most people who live in NFIP participating communities, including business owners, renters and condo unit owners, are eligible to purchase federally-backed flood insurance. A residential building can be insured up to \$250,000 and its contents up to \$100,000. Renters can cover belongings up to \$100,000, and non-residential property owners can insure their buildings up to \$500,000 and contents up to \$500,000.

EVERYONE NEEDS FLOOD INSURANCE

All areas are susceptible to flooding, although to varying degrees. It is advisable to have flood insurance in high-risk areas and even in low-to-moderate flood risk areas; between 20 and 25 percent of the NFIP's claims come from outside high-risk areas. Residential and commercial property owners located in low-to-moderate risk areas should ask their agents if they are eligible for the Preferred Risk Policy, which provides inexpensive flood insurance protection, starting as low as \$112 a year.



FEMA

Even after a home, apartment, or business has been flooded, owners and renters are still eligible to purchase flood insurance, provided that the community is participating in the NFIP.

FLOOD INSURANCE REQUIREMENTS

Residents who live in high-risk areas (referred to as Special Flood Hazard Areas [SFHAs]) are required to purchase flood insurance if they have a mortgage from a federally regulated lender. They also must carry the insurance for the life of the mortgage. Residents with a mortgage on a building outside high-risk areas can also purchase flood insurance and may be eligible for Preferred Risk Policies.

WAITING PERIOD

In general, a policy does not take effect until 30 days after the purchase of flood insurance. However, if a policy is purchased in connection with a mortgage or at a set time period following the revision or update of a Flood Insurance Rate Map (FIRM), the waiting period does not apply.

WHAT IS AND IS NOT COVERED BY FLOOD INSURANCE

Physical damage to a building or personal property that is directly caused by a flood is generally covered by flood insurance. For example, damages caused by a sewer backup are covered if the backup is a direct result of flooding. However, if the backup is caused by some other problem, the damages are not covered.

INFORMATION FOR THE PUBLIC

The NFIP works to provide affordable protection against flooding to homeowners, business owners, and renters across the country. To build awareness of flood protection and preparedness, the NFIP created the FloodSmart campaign, which informs consumers about their flood risk and protection options. FloodSmart also provides information and resources to insurance agents.

The NFIP has developed materials in a nationwide effort to provide citizens with better information on flood insurance policies. As a result of requirements in the Flood Insurance Reform Act (FIRA) of 2004, the NFIP published a *National Flood Insurance Program Claims Handbook* to assist policyholders with the process of filing a claim. A Summary of Coverage document helps people understand flood insurance policies, provides general information about deductibles, explains what is and is not covered by flood insurance, and how items are valued at the time of loss. Both documents are available on the FloodSmart website at: [http:// www.FloodSmart.gov](http://www.FloodSmart.gov).

FOR MORE INFORMATION

For additional information about the NFIP or the FloodSmart campaign, visit: [http:// www.FloodSmart.gov](http://www.FloodSmart.gov).



The following information is being provided to residents and property owners in connection with flooding in Stafford Township, ways to minimize flood risk and information on flood insurance.

The U.S. Congress established the National Flood Insurance Program (NFIP) with the passage of the National Flood Insurance Act of 1968. The NFIP is a Federal program, under the Federal Emergency Management Agency (FEMA), enabling property owners in participating communities to purchase insurance as a protection against flood losses in exchange for State and community floodplain management regulations that reduce future flood damages. Stafford has been involved in the National Flood Insurance Program's Community Rating System (CRS) since 1991. CRS is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements. As a result, flood insurance policy holders receive a discount on their annual premiums depending on their flood zone and elevation of the insured structure together with the Township's CRS classification. Stafford has reached a Class 6 rating which provides for up to a 20% discount for policyholders. This is a savings of over \$800,000 for property owners throughout the Township.

Natural and Beneficial Functions of a Floodplain

The floodplain or Special Flood Hazard Area (SFHA) in Stafford is the area that is inundated by floodwaters of a stream, river or by tidal waters of the Barnegat Bay or the Atlantic Ocean. The natural function of a floodplain is to store the floodwaters or storm tides, on a temporary basis, until the water recedes to its usual stream channel and normal coastal tide elevation. In river systems, the floodwaters inundate the floodplain area along the defined channel, replenishing soil moisture and depositing fertile silt from the river channel. Along the coastal areas in Stafford, tidal wetlands provide a temporary reservoir for floodwaters from storm tides, which are higher than normal. Natural floodplains also protect our community against storm-related erosion by wave action or scour and battering by debris. Finally, natural floodplains enhance water quality by filtering impurities and moderate water temperature which reduces the possibility of adverse impacts on aquatic plants and animals.

STAFFORD TOWNSHIP - FLOOD HAZARD INFORMATION

Drainage System Maintenance

Stafford's drainage system consists of natural and human-made watercourses and storage basins that must be maintained in order to prevent flood damage from smaller, more frequent storm events. Drainage systems are found in streets, roadside ditches, underground recharge systems as well as open channels and detention and retention basins.

Stafford's Public Works Department inspects our storm water drainage systems on a semi-annual basis. Our maintenance program includes inlet cleaning, pipe cleaning, drainage basin maintenance and street sweeping. Township Code Chapters 136 (Litter) and 185 (Stormwater System) prohibit any dumping in our waterways or stormwater systems. Through our Clean Communities program, there is a 24-hour Water Watch tip line to report any illegal activity. If you see anything please call (609) 597-8581. During the summer months, all navigable waterways are inspected and kept free from floating debris. Staff perform routine maintenance and respond to all complaints.

Stafford's Environmental Commission has had the "Adopt-a-Drain" program in place since 1999. All storm drains are "tagged" and can be adopted by an individual or any organization such as a civic or homeowner group or scout troop. The adopting person or group monitors the basin or drain and reports any siltation or debris to the Public Works Department. For additional information, please call (609) 597-1000 ext. 8609.

Local Flood Hazard

Flooding is a health and safety hazard in various locations in Stafford. Our 14agoon communities and neighborhoods near the Barnegat Bay are subject to tidal flooding from hurricanes and winter storms. Properties in the westerly sections of our community may be inundated with floodwaters from small streams, dry branches of rivers or nearby lakes.

Storm events passing near our coastline have generated tidal surges that have inundated several areas such as Cedar Sunset Island, Malard Island, Beach Haven West and Cedar Run Dock Road. A powerful thunderstorm in July 1991 and a nor'easter on December 11, 1992 generated the highest flood insurance claims in Stafford and also affected homes throughout the entire Township. More recently, several storm events in July and October

2005 flooded parts of the Township. A flash flood event on September 16, 2006 caused major flooding as well as many insurance claims and significant flooding also occurred in the Fall of 2009. In October 2012 Superstorm Sandy effected thousands of homes in our community and produced record level flooding. If you were here during any of these storm events, you may have seen flooding and know that this is a real threat to our community. This is why the Township has continued with the CRS program and does what it can to minimize the impact of flooding.

Local Flood Hazard Maps

The Flood Insurance Study and Flood Insurance Rate Maps for Stafford, which most recently became effective 9/29/06, are available for review at the Community Development Department. FEMA has recently released and the Township has adopted FEMA's Preliminary Work Maps. The Preliminary Work Maps are currently being used to determine a property's flood zone and base flood elevation. The base flood elevation is a height above mean sea level to which building standards are guided by. Structures adhering to these required standards are less likely to suffer damage from flood events. The maps show base flood elevation ranges throughout Stafford from 7 to 10 feet above mean sea level. Construction standards require 1 additional foot to any elevation shown on the map effective at the time of a permit for any new or substantially improved/damaged homes. The department will provide you with a flood zone determination letter for your property upon request.

Flood Safety

Before and During a Flood Event

- Look for brochures at the Municipal Building with topics that range from hurricane awareness to disaster preparedness.
- If you think you will need help during an evacuation, need transportation or have special needs, you can register with the **Stafford Township Office of Emergency Management at (609) 597-1000, ext. 8265.** Names and addresses are kept confidential. Don't wait until a storm event happens if you feel you may need assistance. Help us plan to help you by notifying the Office of Emergency Management today!
- Inspect your property now and evaluate what objects may become a hazard during a flood. Items such as barbecue propane tanks, trash cans and patio furniture may become buoyant and possibly float

away. Water or wind could propel such items through windows or cause other damage.

- Turn off utilities at the main switches or valves if instructed to do so. Disconnect electrical appliances. Do not touch electrical equipment if you are wet or standing in water.
- When notified to evacuate, do so immediately. The Office of Emergency Management monitors storm events very closely and only orders an evacuation notice when it is in your best interest to move to higher ground or to an evacuation shelter. In the event you must evacuate, here are some essential items you should take with you:

First aid supplies
Non-perishable food (can opener)
Water for each evacuee

Medications
Pet food
Blankets

- Portable radio and flashlight (batteries) Clothing
 - Important papers, checkbook, valuables
 - Do not walk through flowing water. Drowning is the number one cause of flood deaths. Currents can be deceptive; six inches of moving water can knock you off your feet. If you must walk through standing water, use a pole or stick to ensure that the ground around you is solid. After a flood, look before you step, as the ground and floors may be covered with debris or may be unstable.
 - Do not drive through a flooded area. More people drown in their cars than anywhere else. Do not drive around road barriers as the road or bridge may be washed out. A foot of water will float many vehicles.
 - Stay away from power and electrical lines. The number two killer after drowning is electrocution. Electrical current can travel through water. Report downed power lines to the Stafford Township Police Department at (609) 597-8581.
 - Look out for animals, such as snakes. Small animals that have been flooded out of their homes may seek shelter in your home. Use a pole or stick to poke and turn things over to scare away small animals.
 - Be alert for gas leaks. Do not smoke or use candles, lanterns or open flames unless you know the gas has been turned off in your house and the area has been ventilated.
- #### After a Flooding Event
- Listen for news reports to learn whether the water supply is safe to drink.
 - Avoid floodwaters; water may be contaminated by oil, gasoline, or raw sewage. Water may also be electrically charged from underground or downed power lines.

- Be aware of areas where floodwaters have receded. Roads may have weakened and could collapse under the weight of a car.
- Return home only when authorities indicate it is safe.
- Stay out of any building if it is surrounded by water.
- Use extreme caution when entering buildings; there may be hidden damage, particularly in foundations.
- Service damaged septic tanks, cesspools, pits, and leaching systems as soon as possible. Damaged sewage systems are serious health hazards.
- Clean and disinfect everything that got wet. Mud left from floodwater can contain sewage and chemicals.

Flood Warning System

In case of an emergency, you should listen to an Emergency Broadcast System. In addition to the Comcast Cable, you can also tune your radio to:

- WOBM-(FM) 92.7
- WJRK-(FM) 100.1
- WJLK-(AM) 1310
- WOBM-(AM) 1170
- WJLK-(FM) 94.3 & 98.5

A Flood WATCH is issued when conditions exist which may cause flooding when the flooding is neither certain nor imminent but a real possibility. Flood Watches provide advance notice and up-to-date information on the possibility of flooding within 36 hours. A watch should be your cue to think about preparation and planning in the event of a flood. Be alert for changing weather, listen for further information, and think about what to do if conditions deteriorate.

A Flood WARNING is issued when flooding is or soon will be occurring. In the event of an emergency, Police, Fire and First Aid personnel will perform "route" alerting. Alerting will be by mobile public address systems and door-to-door operations. When told to evacuate, do so without hesitation. The longer you wait to leave, the more likely you are to be in a heightened evacuation traffic grid-lock on Route 72, the only westbound evacuation route. Evacuation shelters are located at the Southern Regional High School located on Cedar Bridge Road. Be advised that shelters do not always allow pets.

YOUR HOMEOWNERS INSURANCE DOES NOT COVER DAMAGE CAUSED BY FLOODING

Flood insurance is backed by the Federal Government and is available to everyone, even to property owners who have been flooded before and to property owners who own property outside the flood zone. The maximum insurance coverage on residential dwellings is \$250,000 and the maximum insurance coverage on household contents is \$100,000. Nonresidential properties are also eligible for insurance in various amounts.

Flood insurance is mandatory for all loans provided by federally insured or regulated lenders in order to purchase, construct, repair or improve any building in the flood zone. Lending agencies, real estate offices and title companies should be aware of this Federal requirement. There can be a 30-day waiting period before coverage goes into effect so you should plan accordingly. Rates will vary depending on the location in the flood zone, the elevation of the structure and coverage and deductible amounts. You should contact your insurance agent for more information about coverage for your property.

For more information about flood zones and flood insurance you may contact the National Flood Insurance Program at 1-800-427-4661 or search the following websites, www.fema.gov/nfp or www.FloodSmart.gov.

Development Permit Requirements

All properties located in the SFHA of Stafford Township are subject to the flood hazard regulations found in Chapter 114 of the Township Code. Before undertaking any development, the proper permits must be obtained. The Code has specific requirements for new and substantially improved structures. A substantial improvement means any reconstruction, rehabilitation, addition, or other improvement to a building, where the cost equals or exceeds 50% of the market value of the building before the start of construction. This also includes a building that has suffered substantial damage. Substantial damage means damage of any origin (not just flooding) sustained by a building whereby the cost of restoring the building to its pre-damage condition is equal to or exceeds 50% of the market value of the building before the damage occurred. Among other requirements, the Township Code requires that new or substantial improvements to residential buildings be elevated one foot above the base flood elevation. As part of the permit process, a licensed engineer or architect must complete an Elevation Certificate. This certificate is required to certify the structure's elevations and obtain the final CO. A licensed engineer or architect must also provide certification of the design of any construction below the base flood elevation, including floodproofing. There are also requirements in the Township Code for non-residential buildings. Before the start of any construction project, please check with the Community Development Department or Building Department to verify the structure's location in the flood zone, verify the base flood elevation and determine all construction requirements.

Please contact the Construction Code Official or Zoning Code Enforcement Officer to report any possible illegal construction activity. These regulations are designed to

protect you and your neighbors. By getting the proper permits, we can prevent or reduce flood damage.

Property Protection Measures

There are several ways to protect your home from flood:

- 1) elevate your structure above the base flood elevation;
- 2) make your walls waterproof and place watertight closures over your doorways and windows. This technique is known as retrofitting or flood proofing. The Community Development Department has information that detail these concepts. The Stafford Township branch of the Ocean County Library also has books and literature available on these topics in their reference section.

Any building alterations will require a permit from the Construction Department. Our Construction Code Official can provide advice and assistance on building modifications that will help prevent flood damage. You may call the department to make an appointment.

FEMA has several financial assistance programs that can help implement activities such as property acquisition, retrofitting and other flood protection projects. More information on financial assistance programs can be found in a publication *Local Flood Proofing Programs*. Please contact the Township for further information.

There are also no-cost measures you can take to prevent a loss from rising flood waters. Consider temporarily moving furniture, electronic equipment, or important papers to a higher spot within your home such as an attic or the tops of cabinets.

Remember, being prepared is key. Staff are available to answer any questions you may have. Please see below for Township contact information and various website links with additional information.

Stafford Township contact information:
 Emergency Management: (609) 597-1000, ext. 8265
 Community Development Dept: (609) 597-1000, ext. 8535
 Construction Department: (609) 597-1000, ext. 8562

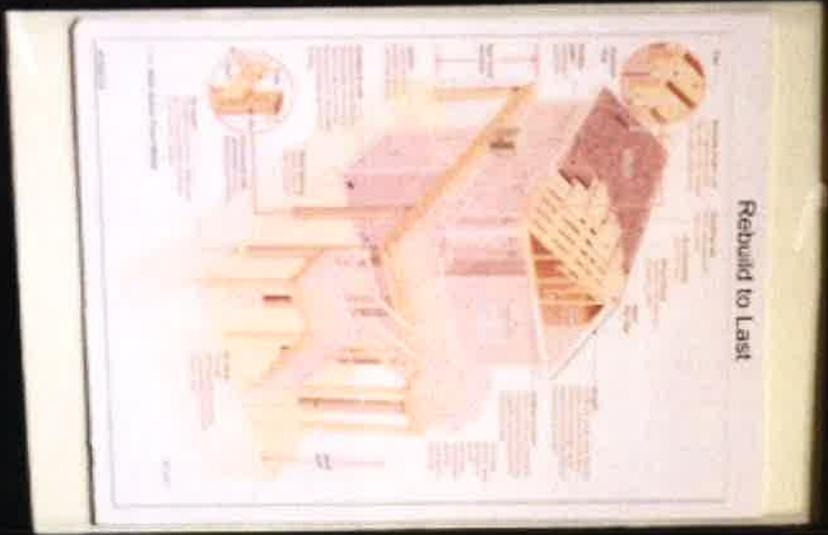
Helpful Links:
 FEMA - www.fema.gov/hazard/flood
 National Flood Ins. Program - www.FloodSmart.gov
 U.S. Department of Homeland Security - www.dhs.gov
 National Weather Service: www.nws.noaa.gov
 National Hurricane Center - www.nhc.noaa.gov
 NJ State Police - www.njisp.org
 NJ Office of Emergency Manage. - www.nj.gov/njoem/
 NJ Homeland Security - www.njhomelandsecurity.gov

September 2013

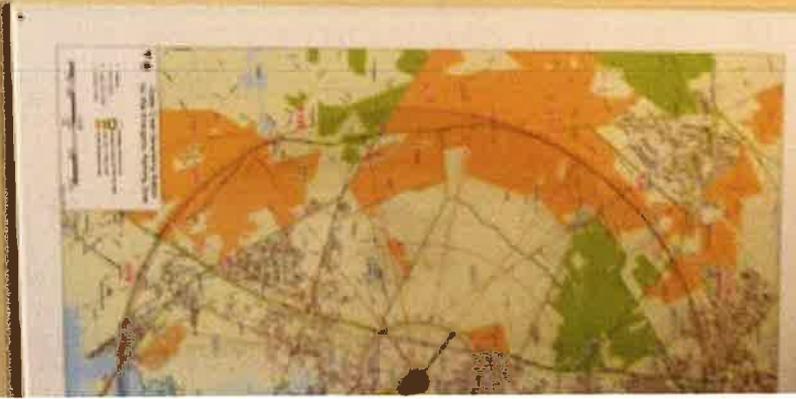
FLOOD HAZARD INFORMATION

Prepared By:
 Community Development Department
 Stafford Township
 260 East Bay Avenue
 Manahawkin, NJ 08050
 (609) 597-1000
www.staffordnj.gov

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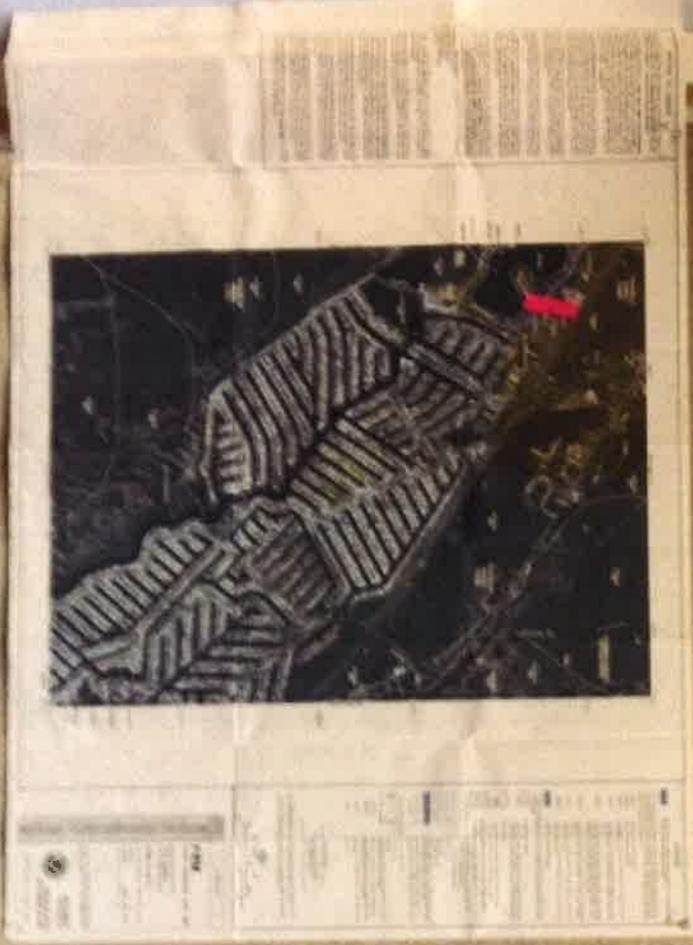


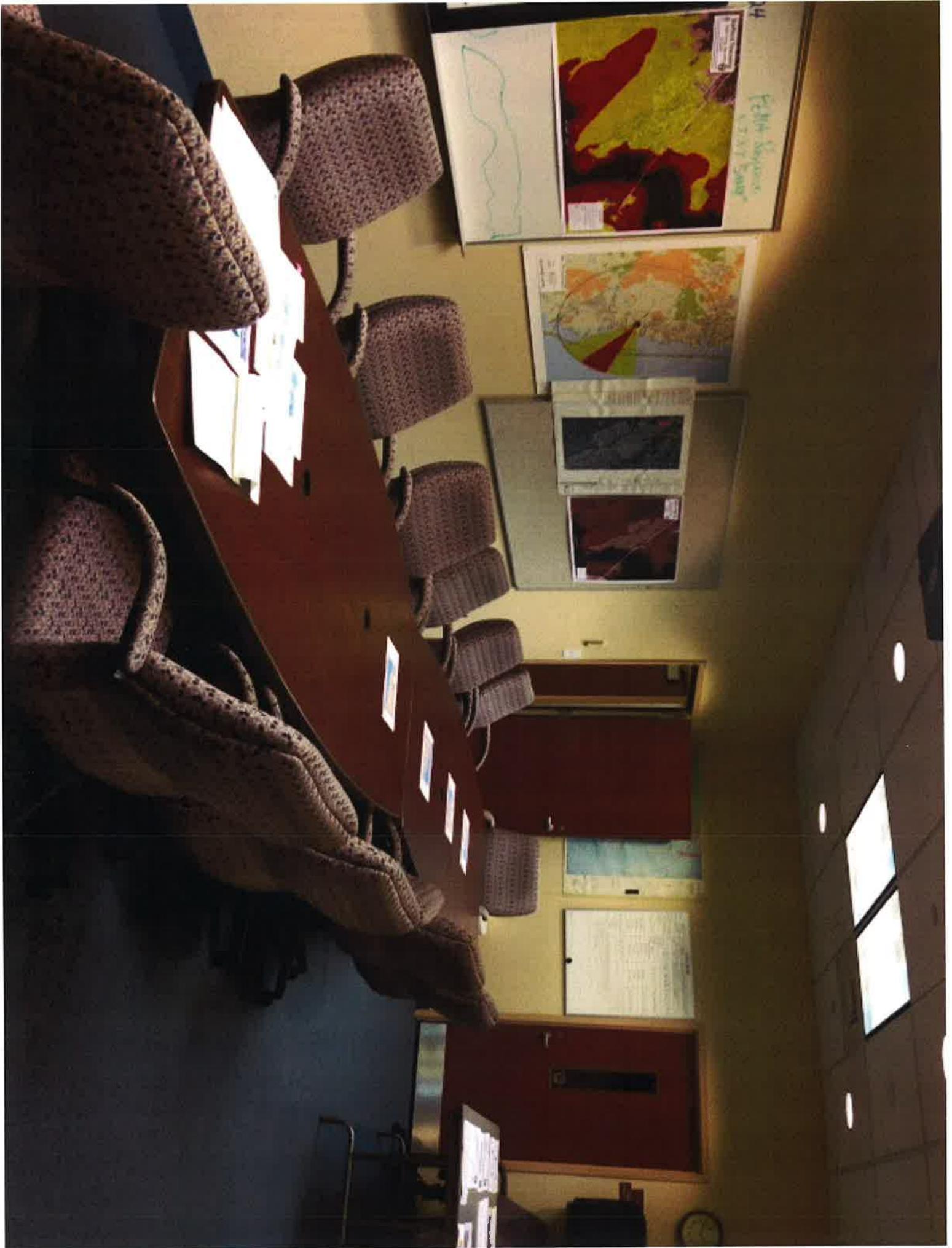
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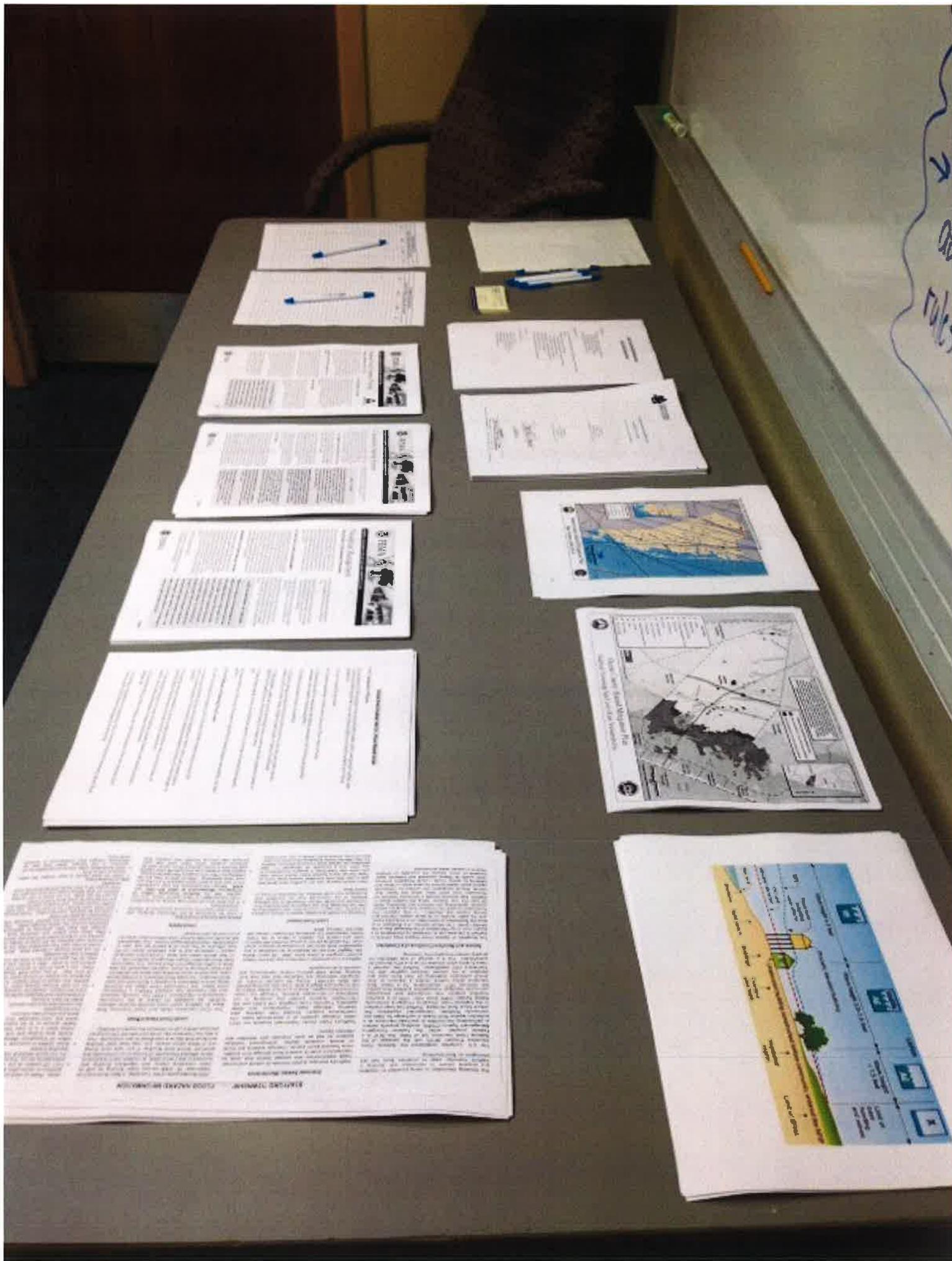


115: FEMA Disaster Recovery &
ATD Chambers Bridge Rd
Brick, NJ
→ They will answer questions
about applications, qualifications,
rules & regulations, etc.

A long table covered with various documents and materials. At the top left, there are two sheets of lined paper with blue pens resting on them. Below these are several other sheets of paper, some containing text and others with images or diagrams. A yellow highlighter and a blue pen are also visible on the table. A green level is placed horizontally along the right edge of the table. The background shows a whiteboard and a dark wall.







Want to add your personal input to the Ocean County 2013 Hazard Mitigation Plan? Follow the link provided below and fill out the Public Outreach Survey:

<http://www.oceancountyhmp.com/ocean-county-hazard-mitigation-public-outreach-survey>

Thanks for taking the time to better inform us about your community. Your input is an important part of developing a well-informed plan with the ultimate goal of making Ocean County more resilient and disaster-resistant.

Public & Stakeholder Meetings on May 14th & 20th, 2013

posted May 1, 2013, 2:05 PM by Christine Caggiano [updated May 1, 2013, 2:10 PM]

Public Open Houses will be held for Ocean County community members to provide input to the Ocean County 2013 Hazard Mitigation Plan. Residents, local officials, industry, academia, and others are encouraged to attend. The details of the meetings are as follows:

Tuesday, May 14, 2013

3:00 p.m. to 7:00 p.m.

Brief presentations at 4:00, 5:00 & 6:00 p.m.

Ocean County Office of Emergency Management

RJ Miller Air Park

Rt. 530 & Mule Rd.

Berkeley Township, NJ

Monday, May 20, 2013

3:00 p.m. to 7:00 p.m.

Brief presentations at 4:00, 5:00 & 6:00 p.m.

Ocean County Southern Service Center

179 S. Main St.

Manahawkin, NJ 08050

For directions to the RJ Miller Air Park and to download the meeting flyer, please go to the Project Documents page of the website.

Available Online: Handouts and Presentation from Risk Assessment Meeting

posted Feb 14, 2013, 11:40 AM by Christine Caggiano [updated Feb 14, 2013, 11:41 AM]

The powerpoint presentation from the Risk Assessment Meeting on Wednesday, February 13th, 2013 is posted under the 'Project Documents' on the website:

<http://www.oceancountyhmp.com/project-documents>

Follow the link to download and view the presentation or any of the handouts distributed at the meeting. For anyone who missed the meeting, contact sheets for municipalities and stakeholders have been uploaded, so feel free to fill out the appropriate form and send it to: sbowen@mbakercorp.com.

Risk Assessment Meeting on February 13th

posted Jan 28, 2013, 1:10 PM by Christine Caggiano

A meeting will be held to review and collect important information on Risk Assessment. The details of the meeting are as follows:

Wednesday, February 13, 2013

10:00 a.m. to 12:00 p.m.

Mancini Hall - Ocean County Library

101 Washington Street

Toms River, NJ 08753

Welcome to the Ocean County HMP website

posted Jan 3, 2013, 11:09 AM by Christine Caggiano [updated Jan 3, 2013, 2:15 PM]

Check the announcements page for information and upcoming events concerning the update of the Ocean County HMP.

Join Us to Provide Input in the Ocean County Multi-Jurisdictional All Hazards Mitigation Plan!

Ocean County's Multi-Jurisdictional All Hazards Mitigation Plan will be the blueprint for reducing property damage and saving lives from the effects of future natural and human-made disasters. Open house meetings will be the opportunity to provide input to the plan and collect valuable hazard mitigation information. Residents, local officials, industry, academia, and others are encouraged to attend.

Public & Stakeholder Meetings

*Open Houses from 3:00 p.m. until 7:00 p.m.
Brief presentations at 4:00, 5:00 & 6:00 p.m.*

Tuesday, May 14, 2013

*Ocean County Office of
Emergency Management
RJ Miller Air Park
Rt. 530 & Mule Rd.
Berkeley Township, NJ*

Monday, May 20, 2013

*Ocean County
Southern Service Center
179 S. Main St.
Manahawkin, NJ 08050*

www.OceanCountyHMP.com

This website will be used throughout the planning process to collect comments, announce meetings, and to post draft documents.



Project Partners



The Barnegat Bay Partnership focuses on restoring and improving the health of the Barnegat Bay ecosystem. The partnership is one of many organizations across the nation whose goal is to protect important estuaries. Areas of priority include water quality, water supply, habitat, fisheries & wildlife, and land use.



The Jacques Cousteau National Estuarine Research Reserve (JC NERR) is located in Tuckerton, Ocean County, New Jersey. The Center is part of a national reserve system formed to protect the country's estuaries. Through education, scientific research and stewardship, the JC NERR promotes responsible use and management of these estuaries.



The Ocean County Sheriff's Department is located in Toms River, Ocean County New Jersey. They are dedicated to protecting citizens lives and property in Ocean County New Jersey. The Sheriff's office aims to justly enforce the laws of the state and nation as well as protecting individual constitutional rights.



PLANNING

The Ocean County Planning Department is located in Toms River, Ocean County New Jersey. They advise and inform decisions made by the community and government regarding land use, environmental issues, future development, among other topics.



ENGINEERING

The Ocean County Engineering Department is located in Toms River, Ocean County New Jersey. They are responsible for managing the county roads, bridges, and signing throughout all 33 municipalities. They also promote traffic safety through various class offerings.

Ocean County HMP

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Hazard Mitigation Links

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[New Jersey Department of Environmental Protection Home Page](#)

Welcome to the Ocean County 2013 Hazard Mitigation Website



In the aftermath of Hurricane Sandy, the Hazard Mitigation Plan will help build help! We want to hear your disaster-related stories and get your feedback as \ Hazard Mitigation Plan. Throughout the planning process, use the SUBMIT A your thoughts, ideas, photos, and stories with us. Your participation strengthen

OCEAN COUNTY HAZARD MITIGATION PLAN - MUNICIPAL MEETINGS

Name	Position	Email Address
PINE BERTH John Selo	DEM CARD, /ADMINISTRATIVE	PINEBERTH@COMCAST.NET
BERTH TOWN		
FRANK LITTLE	RESPONSIBLE ENGINEER	FLITTLE@OCEANLITTLE.COM
BERNWOOD		
Lizbeth + JARR	Police Chief / DEM CARD.	RTAPP@BERNWOODPOLICE.COM
OCEAN TOWN		
FELIPE S. CONTRERAS	Borough Engineer	felipe.contreras@roc.com
SUE CITY		
Jack Casella	DEMC	scemgt@comcast.net
STAFFORD		
Joseph Giberson	Em. Mnu Card. / Chief of Police	jgiberson@staffordpolice.org
William S. Hibel	DEM CARD.	Housing@seasideheights.org

SENSITIVE
RESULTS

May 20, 2013



OCEAN COUNTY - NEW JERSEY

MULTI-JURISDICTIONAL ALL HAZARDS MITIGATION PLAN

OCEAN COUNTY HAZARD MITIGATION PLAN - RISK ASSESSMENT MEETING

Name	Organization	Email Address
Stacy Perrine	RC	perrines@rcnj.org
Karin Moser	OC Sheriff's Office	kmoser@co.ocean.nj.us
Robert Henry	Georgian Court	kenya@georgian.edu
Keith Pella	Twp. of Buckle	KRella@Twp.Buck.NJ.US
Veronica Lawrence	Dwp of Lacey	laceyclerk@laceytownship.org
Patrick Linker	Seaside Park	PLINKST@LIVE.COM
MIKE Flomsky	LITTLE EGGS HARBOR	mflomsky@LEHT.EDU
Joseph Giberson	Stafford Township	JGiberson@staffordpolice.org
James Moran	Stafford Township <i>Borough of Montvale</i>	Jmoran@twp.stafford-nj.us
Frank Brown	Hatch Mat. M. District	FRANKS.BROWN@HATCHMATT.COM
Fred Brown	Twp of Bergen	ADMINISTRATOR@TWP.BERGEN.NJ.US
Father Doern	The Nature Conservancy	pdorn@tnc.org

February 13, 2013



CAPABILITY ASSESSMENT WORKSHEET

Name: James A. Moran

Title: Twp. Administrator

Jurisdiction: Stafford Twp.

Organization: Municipal

Local mitigation capabilities are existing authorities, policies, programs, and resources that reduce hazard impacts or that could be used to implement hazard mitigation activities. Please complete the tables and questions in the worksheet as completely as possible.

Planning and Regulatory

Planning and regulatory capabilities are the plans, policies, codes, and ordinances that prevent and reduce the impacts of hazards. Please indicate which of the following your jurisdiction has in place.

Plans	Yes/No Year	What is the date/year of the plan?
		Does the plan address hazards? Does the plan identify projects to include in the mitigation strategy? Can the plan be used to implement mitigation actions?
Comprehensive/ Master Plan	yes	Adopted 2007 No. No. In a limited way.
Capital Improvements Plan	yes	annual yes. yes. yes
Economic Developments Plan	no	
Local Emergency Operations Plan	yes	state approval 2013-2017 limited. no. no
Continuity of Operations Plan	yes	part of Emergency op plan no. no. no
Transportation Plan	no	
Stormwater Management Plan	yes	march 2005 yes. limited. yes
Community Wildfire Protection Plan	yes	State plan
Other special plans (e.g., brownfields redevelopment, disaster recovery, coastal zone management, climate change adaptation)		



OCEAN COUNTY - NEW JERSEY

MULTI-JURISDICTIONAL ALL HAZARDS MITIGATION PLAN

CAPABILITY ASSESSMENT WORKSHEET

Building Code, Permitting, and Inspections	Yes/No	Are codes adequately enforced?
Building Code	yes	Version/Year: 2011 Electric 2009 NJ Edition IBC
Building Code Effectiveness Grading Schedule (BCEGS) Score		Score: ISO
Fire department ISO rating		Rating: 5.3
Site plan review requirements		Twp. Engineer, Landscape Architect, Traffic Engineer
Land Use Planning and Ordinances	Yes/No	Is the ordinance an effective measure for reducing hazard impacts? Is the ordinance adequately administered and enforced?
Zoning ordinance	yes	Yes, Yes
Subdivision ordinance	yes	Yes, Yes
Floodplain ordinance	yes	Yes, Yes
Natural hazard ordinance (stormwater, steep slope, wildfire)	yes/no	Yes, Yes
Flood Insurance rate maps	yes	Yes, Yes
Acquisition of land for open space and public recreation uses	yes	Yes, Yes
Other		
How can these capabilities be expanded and improved to reduce risk?		
Engineers also assist in damage assessment and mitigation in emergencies.		



CAPABILITY ASSESSMENT WORKSHEET

Administrative and Technical

Identify whether your community has the following administrative and technical capabilities. These include staff and their skills and tools that can be used for mitigation planning and to implement specific mitigation actions. For smaller jurisdictions without local staff resources, if there are public resources at the next higher level government that can provide technical assistance, indicate so in your comments.

Administration	Yes/No	Describe capability Is coordination effective?
Planning Commission	yes	Planning board reviews all site plan applications
Mitigation Planning Committee	yes no	LEPC recruits local residents as well as staff
Maintenance programs to reduce risk (e.g., tree trimming, clearing drainage systems)	yes	Plans in place managed through reg. public works maint. prog.
Mutual aid agreements	yes	First AID, police, fire yes
Staff	Yes/No FT/PT	Is the staff full time or part time? Is staffing adequate to enforce regulations? Is the staff trained on hazards and mitigation? Is coordination between agencies and staff effective?
Chief Building Official	FT	FT, yes. yes. yes
Floodplain Administrator	FT	FT, yes. yes. yes
Emergency Manager	FT	FT. yes. yes. yes
Community Planner	FT	FT. yes. yes. yes
Civil Engineer	PT	PT. yes. yes. yes
GIS Coordinator	PT	PT. yes. yes. yes
Other		



CAPABILITY ASSESSMENT WORKSHEET

Technical	Yes/No	Describe capability Has capability been used to access/mitigate risk in the past?
Warning systems/services (Reverse 911, outdoor warning signals)	yes	Sirens, lightning detection Reverse 911, route alerting plan
Hazard data and information	yes	Website, TV channel, electronic billboard, reverse 911, Twitter, Facebook, road sign message board yes
Grant writing	yes	regular participation
Hazus analysis	no	
Other		
How can these capabilities be expanded and improved to reduce risk?		



CAPABILITY ASSESSMENT WORKSHEET

Financial

Identify whether your jurisdiction has access to or is eligible to use the following funding resources for hazard mitigation.

Funding Resource	Access / Eligibility (Yes/No)	Has the funding resource been used in the past and for what type of activities? Could the resource be used to fund future mitigation actions?
Capital Improvements project funding	yes	Yes. Capital improvement drainage/roads/W&S
Authority to levy taxes for specific purposes	yes	Yes. How we fund capital projects
Fees for water, sewer, gas, or electric services	yes	Yes. funds reg. maint as well as capital
Impact fees for new development	yes	Yes. Improvements
Storm water utility fee	no	
Incur debt through private activities	no	
Community Development Block Grant	yes	Yes. Dial-A-Ride bus service
Other federal funding programs	yes	Yes. Environmental projects
State funding programs	yes	Yes. drainage/W&S
Other		
How can these capabilities be expanded and improved to reduce risk?		



CAPABILITY ASSESSMENT WORKSHEET

Education and Outreach

Identify education and outreach programs and methods already in place that could be used to implement mitigation activities and communicate hazard-related information.

Program/Organization	Yes/No	Describe program/organization and how it relates to disaster resilience and mitigation. Could the program/organization help implement future mitigation activities?
Local citizen groups or non-profit organizations focused on environmental protection, emergency preparedness, access and functional needs populations, etc.	Yes	LEPC Civic Assoc. Outreach Calendar annual print info.
Ongoing public education or information program (e.g., responsible water use, fire safety, household preparedness, environmental education)	Yes	Civic Assoc. outreach
Natural disaster or safety related school programs	No	
StormReady certification	Yes	
Firewise Communities certification	Yes	
Public-private partnership initiatives addressing disaster related issues	Yes	
Other		
How can these capabilities be expanded and improved to reduce risk?		



MUNICIPAL HAZARD WORKSHEET

Hazards in your Community

Use this worksheet to identify the most significant hazards in your municipality. Use the words provided on the opposite side of the worksheet to fill in the fields for each hazard.

Municipality:	STAFFORD TWP			
Name:				
Hazard	Location (Geographic Area Affected)	Maximum Probable Extent (Magnitude/ Strength)	Probability of Future Events	Overall Significance Ranking
Select	Negligible, Limited, Significant or Extensive	Weak, Moderate, Severe or Extreme	Unlikely, Occasional, Likely or Highly Likely	Low, Medium or High
Climate Change/Sea Level Rise	=			
Coastal Erosion	=			
Drought	-			
Earthquake	-			
Extreme Temperature (including cold and heat)	-			
Flooding (riverine, coastal, tsunami, dam failure)	=			
Hail	-			
Hurricane, Tropical Storm	##+			
Lightning Strike	=			
Nor'easter	+			
Subsidence, Sinkhole	-			
Tornado, Wind Storm	-			
Wildfire	+			
Winter Storm	=			
Hazardous Waste Events (fixed, offshore, trans.)	=			
Nuclear Hazard Events	+ (w/in 10 mi US EPZ)			
Transportation Accidents	=			
Utility Interruption (Power Outages)	=			



Definitions for Classifications

Locations (Geographic Area Affected)

- **Negligible:** Less than 10 percent of the land area (isolated single-point occurrences)
- **Limited:** 10 to 25 percent of the land area (limited single-point occurrences)
- **Significant:** 25 to 75 percent of the land area (frequent single-point occurrences)
- **Extensive:** 75 to 100 percent of the land area (consistent single-point occurrences)

Maximum Probable Extent (Magnitude/Strength based on historic events or future probability)

- **Weak:** Limited classification on scientific scale, slow speed of onset or short duration of event, resulting in little to no damage
- **Moderate:** Moderate classification on scientific scale, moderate speed of onset or moderate duration of event, resulting in some damage and loss of service for days
- **Severe:** Severe classification on scientific scale, fast speed of onset or long duration of event, resulting in devastating damage and loss of services for weeks or months
- **Extreme:** Extreme classification on scientific scale, immediate onset or extended duration of event, resulting in catastrophic damage and uninhabitable conditions

Hazard	Scale/Index	Weak	Moderate	Severe	Extreme
Drought	Palmer Drought Severity Index (cumulative meteorological drought and wet conditions: http://ncdc.noaa.gov/)	-1.99 to +1.99	-2.00 to -2.99	-3.00 to -3.99	-4.00 and below
Hurricane, Tropical Storm WInd	Saffir-Simpson Hurricane Wind Scale (Hurricane Rating based on sustained wind speed: http://nhc.noaa.gov)	1	2	3	4, 5

Probability of Future Events

- **Unlikely:** Less than 1 percent probability of occurrence in the next year or a recurrence interval of greater than every 100 years.
- **Occasional:** 1 to 10 percent probability of occurrence in the next year or a recurrence interval of 11 to 100 years.
- **Likely:** 10 to 90 percent probability of occurrence in the next year or a recurrence interval of 1 to 10 years
- **Highly Likely:** 75 to 100 percent of the land area (consistent single-point occurrences)

Overall Significance

- **Low:** Two or more criteria fall in lower classifications or the event has a minimal impact on the planning area. This rating is sometimes used for hazards with a minimal or unknown record of occurrences or for hazards with minimal mitigation potential.
- **Medium:** The criteria fall mostly in the middle ranges of classifications and the event's impacts on the planning area are noticeable but not devastating. This rating is sometimes used for hazards with a high extent rating but very low probability rating.
- **High:** The criteria consistently fall in the high classifications and the event is likely/highly likely to occur with severe strength over a significant to extensive portion of the planning area.



MITIGATION ACTION SELECTION

Name: _____

Title: _____

Jurisdiction: STAFFORD TWP

Organization: _____

Mitigation Action Evaluation

Mitigation Action Description	Hazards Addressed	Benefit	Cost
Local Plans and Regulations			
✓ STAFFORD TWP NFIP			
✓ BUILDING CODES			
✓ ADOPTED NEW MAPS			
Structure and Infrastructure Projects			
✓ RT. 72 → NOW EXTENSION & BARRIERS BANK INSTALLED			
✓ FLOOD, ELEVATION, & PLANNING (9 PROJECTS)			
✓ ADAPTATION PROJECTS - RAISING LAGOON PROPOSED			
✓ PEOPLE SIGN UP → BORET MANUAL (30 POOLS APPROX) ✓			
Natural Systems Protection			
Education and Awareness Programs			
✓ C&S PARTICIPATION → CONSIDER UPGRADING YOUR LEVEL			
✓ REVERSE 911			
✓ FACEBOOK PAGE - PD			
✓ TELEVISION STATION - PUT OUT MESSAGES ON THIS			
 OCEAN COUNTY - NEW JERSEY MULTI-JURISDICTIONAL ALL HAZARDS MITIGATION PLAN			
FILE DEPT - FILE APPROX NIGHT ALL ✓			

GET MORE
INFO FROM
JIM
MOORE

REVERSE
PROGRAM
→ 911 MITIGATION
→ IMPLEMENT

DAREV
←
BIKE
ROADS ✓