

APPENDIX E

Agenda

Floodplain Management Plan

11/22/11

Ocean Township

1. Introductions
2. Review of Previous Plans
3. Review of Work Performed to Date
4. Overview of Planning Steps
 - a. Organize to Prepare the Plan
 - b. Involve the public
 - c. Coordinate with Other Agencies
 - d. Assess the Hazard
 - e. Assess the Problem
 - f. Set Goals
 - g. Review Possible Activities
 - h. Draft an Action Plan
 - i. Adopt the Plan
 - j. Implement, Evaluate and Revise
5. Discussion on Steps 1-3
 - a. Organize to Prepare the Plan
 - b. Involve the Public
 - c. Coordinate with Other Agencies
6. Set next meeting Date/Topic



Date of Meeting: November 22, 2011
Meeting Location: Ocean Township Construction Office
Minutes Prepared By: Ray Savacool

1. Purpose of Meeting

- The first meeting of the Floodplain Management Plan Committee

2. Attendance at Meeting

<i>Name</i>	<i>Company</i>
Ed Alvare, Construction Official	Township of Ocean
Laurie Clune, Zoning Officer	Township of Ocean
John Petrosilli	Homeowner
Ray Savacool, Professional Planner	T&M Associates

3. Meeting Notes, Decisions, Issues

- The parties were introduced and the purpose of the committee was discussed.
- The Committee reviewed the plans previously prepared by the Township, the 2000 Flood Mitigation Plan and the 2010 update that was not accepted by the reviewing agency.
- The Committee conducted an overview of the planning steps as outlined in the Community Rating System (CRS) Manual Section 510. The ten steps are broken into 4 phases, Planning, Risk Assessment, Mitigation Strategy and Plan Maintenance.
- After reviewing the 10 steps the three planning step were discussed in detail Organize to Prepare the Plan, Involve the Public and Coordinate with other Agencies.
- It was discussed to compile a list of interested stake holders that should be notified regarding Ocean Township's plan preparation. It was decided a public meeting should be held to gather input from interested stake holders.
- The next meeting was tentatively scheduled for November 30, 2011.

Agenda
Floodplain Management Plan
December 7, 2011
Ocean Township

1. Correspondence
2. Public Hearing
3. Ocean County Hazards Plan
4. Assess the Hazard

Date of Meeting: December 7, 2011

Meeting Location: Ocean Township Construction Office

Minutes Prepared By: Ray Savacool

1. Purpose of Meeting

- A meeting was held to discuss the planning steps and public hearing for the Ocean Township Floodplain Management Plan

2. Attendance at Meeting

<i>Name</i>	<i>Company</i>
Ed Alvare, Construction Official	Township of Ocean
Laurie Clune, Zoning Officer	Township of Ocean
John Petrosilli	Homeowner
Ray Savacool, Professional Planner	T&M Associates

3. Meeting Notes, Decisions, Issues

- The committee reviewed the list of stake holders to be notified about the Plan including Condominium Associations, Marinas and Home Owner Associations. Laurie added that there was also a marina association and she would get the address for same.
- The Committee then discussed Ocean Counties All Hazard Plan to which the County would like all towns to contribute. The grant to prepare the plan has not yet been received and so the plan preparation has not yet started.
- The next generation FIRM Maps were then discussed. New mapping will use RiskMAP datasets to better understand flood risk. The maps will enhance the location of highest food risk. This can help identify flood priority areas and areas where it is more likely that a cost effective project will be undertaken.
- The Committee decided that it will have the next meeting after public hearing.

Agenda
Floodplain Management Plan Committee
January 23, 2012

1. Discuss public hearing input
2. Assess the Hazard

Date of Meeting: 1/23/2012

Meeting Location:

Minutes Prepared By: Ray Savacool

1. Purpose of Meeting

Floodplain Management Committee Meeting

1. Discuss public hearing input
2. Assess the Hazard

2. Attendance at Meeting

<i>Name</i>	<i>Company</i>
Ed Alvare, Construction Official	Township of Ocean
Laurie Clune, Zoning Officer	Township of Ocean
John Petrosilli, Resident	Homeowner
Jim Oris, PP	T&M Associates
Ray Savacool, Engineer	T&M Associates

3. Meeting Notes, Decisions, Issues

The Committee reviewed the discussion and comments made at the public meeting of January 1, 2012. The Committee touched on the potential for and the potential for an enhanced freeboard ordinance, modifications to the bulkhead ordinance and the potential for a grading plan ordinance. The Committee discussed the comments made by those in attendance at the hearing including concern regarding overdevelopment and flooding along the bay front.

Assess the Hazard

The Committee was presented with a draft section for Assessing the Hazard. While the section focus on flood hazard, the other natural hazards as outlined in the New Jersey All-Hazards Plan are also listed and briefly discussed. The Committee reviewed the current FIRM maps, Coastal Evacuation Map and SLOSH (Sea, Lake, Overland Surges from Hurricanes) map for the area. It was noted that the SLOSH Mapping yielded very high stormwater flooding elevations for Ocean Township, flooding almost all areas east of Route 9.

The riverine flooding in the community generally occurs in areas that are sparsely populated and occur over lands with limited development potential since there are substantial public holding, especially adjacent to Oyster Creek.

Given the amount of existing housing and development within the coastal flood plain that is the primary hazard to be addressed within the Community.

The Committee then held preliminary discussion on flooding risk and problems which will be further discussed in the next meeting assessing the problem.

Agenda
Floodplain Management Plan Committee
February 1, 2012

1. Assess the Problem

Date of Meeting: 2/1/2012

Meeting Location:

Minutes Prepared By: Ray Savacool

1. Purpose of Meeting

Floodplain Management Committee Meeting

1. Assess the Problem

2. Attendance at Meeting

<i>Name</i>	<i>Company</i>
Ed Alvare, Construction Official	Township of Ocean
Laurie Clune, Zoning Officer	Township of Ocean
John Petrosilli, Resident	Homeowner
Jim Oris, PP	T&M Associates
Ray Savacool, Engineer	T&M Associates

3. Meeting Notes, Decisions, Issues

5a vulnerability

B(1) impacts to life safety, health

Need and procedures for warning and evacuating visitors and residents

- Reverse 911
- Police and fire over loud speaker coordinate through OEM
- Email blast sign up – LC to look up sign ups
- Local TV channel 22 Township of Ocean station

(2) crit facilities and infrastructure

- Fire
- Across Wells Mills Route 9 First Aid
- Elementary and 4-6

(3) The communities' economy and tax base

- marinas but little commercial rectify that w/ RLA

Updated analysis

- (c) Number any type of building subject to hazards. The Committee has a print out of the number and type of buildings in the FHA from the Repetitive Loss Area Analysis
- (d) Review of all properties that have received flood claims. Contact Jim Watt Ed will follow up for additional information.
- (e) Natural areas done
Send EC/BC zone describe FO also 2003-2004 Environmental Resource Inventory
- (f) Development redevelopment done

Agenda
Floodplain Management Committee Meeting
February 7, 2012

1. Phase III Mitigation Strategy
 - Set Goals

Date of Meeting: 2/7/2012

Meeting Location:

Minutes Prepared By: Ray Savacool

1. Purpose of Meeting

Floodplain Management Committee Meeting

1. Phase III Mitigation Strategy
 - Set Goals

2. Attendance at Meeting

<i>Name</i>	<i>Company</i>
Ed Alvare, Construction Official	Township of Ocean
Laurie Clune, Zoning Officer	Township of Ocean
John Petrosilli, Resident	Homeowner
Jim Oris, PP	T&M Associates
Ray Savacool, Engineer	T&M Associates

3. Meeting Notes, Decisions, Issues

Information from last meeting

Reverse 911 dials phone automatically. Call house phone only. Must sign up to place cell phone on call list.

Email Notification = Township has email notification system which provides general information but is also used for emergency notification. Interested parties must call to sign up.

The construction Official provided information relative to claims history in the Township.

The Committee then discussed the goals of the Committee and various activities moving forward.

Ordinance change

- Consider a plot plan ordinance to assure local development does not negatively impact adjoining properties and potentially provide for onsite recharge.
- Freeboard requirements for new construction to provide for enhance elevation above base flood. But potentially limit to al new construction while additions would only

have to meet the base flood to allow for consistent elevation where the existing house is at or above the base flood.

- Bulkhead height restrictions to promote uniform bulkhead height there by providing consistent protection for a bulkheaded area.

Present information to the planning and zoning boards regarding floodplain management.

Provide for maintenance and improvements to the stormwater collection and discharge system. Seek grants for same. Reduce localized flooding. Increase ditch maintenance through public awareness. Increase and coordinate maintenance of storm infrastructure.

The Committee discussed whether preservation of open space should be a goal. While the preservation of open space should not be discounted it was felt that there was already significant open space in place within the flood plain and it is unlikely there will be any significant additions to these holdings.

The Committee discussed construction in the floodplain and felt there was already adequate control on development due to the existing zoning.

The goals of Ocean Township's floodplain management program are the following:

- Reduce loss from flood damage through codes and standards;
- Educate decision makers and the public about stormwater management and floodplain management;
- Coordinate and Prioritize maintenance of the stormwater management system.

Next meeting will be held on February 22, 2012.

Agenda
Floodplain Management Committee Meeting
February 22, 2012
Ocean Township

Review Possible Activities

Activities are broken down into the following categories:

- a) **Preventative activities** such as zoning, stormwater management regulations, building codes and preservation of open space;
- b) **Property protection activities** such as acquisition, retrofitting and flood insurance;
- c) Activities to **protect the natural and beneficial functions** of the floodplain such as wetland protection;
- d) **Emergency service activities** such as warning and sandbagging;
- e) Review of **structural projects** such as reservoirs and channel modification;
- f) **Public information activities**, such as outreach projects and environmental education programs.

Date of Meeting: 2/22/2012

Meeting Location:

Minutes Prepared By: Ray Savacool

1. Purpose of Meeting

Floodplain Management Committee Meeting
Review Possible Activities

Activities are broken down into the following categories:

- a) **Preventative activities** such as zoning, stormwater management regulations, building codes and preservation of open space;
- b) **Property protection activities** such as acquisition, retrofitting and flood insurance;
- c) Activities to **protect the natural and beneficial functions** of the floodplain such as wetland protection;
- d) **Emergency service activities** such as warning and sandbagging;
- e) Review of **structural projects** such as reservoirs and channel modification;
- f) **Public information activities**, such as outreach projects and environmental education program.

2. Attendance at Meeting

<i>Name</i>	<i>Company</i>
Ed Alvare, Construction Official	Township of Ocean
Laurie Clune, Zoning Officer	Township of Ocean
John Petrosilli, Resident	Homeowner
Jim Oris, PP	T&M Associates
Ray Savacool, Engineer	T&M Associates

3. Meeting Notes, Decisions, Issues

1. Preventative Activities

a. Planning and Zoning

In place significant zoning amendment were made to zones within the FHA in 2005. Residential zone R-1A formerly allowed lot sizes of 8,000 SF and was amended to 12,500 SF. Zone R-1 was 12,500 SF and amended to 1 acre. Zone R-2 was changed from 1 acre to 2 acre lot. The BC Zone (Bay front Conservation) has a minimum required lot size 10 acres.

b. Open Space Preservation

In place There are significant open space holdings within the FHA including holdings owed by the U.S. Government as part of the Barnegat National Wildlife Refuge. There are other large tracts owned by the New Jersey Department of Environmental Protection and Ocean County for natural land preservations.

c. Floodplain Regulations

In place Stormwater Management Ordinance

In place State regulation for coastal areas (CAFRA) freshwater wetlands, coastal wetlands, waterfront development and dam safety as well as Flood Hazard regulations (formerly Stream Encroachment)

In place Stormwater Management Plan as required by the Township's general stormwater discharge permit.

d. Building Codes

In place Flood Damage Prevention Ordinance

In place Flood Resistant Construction code is utilized from the International Residential Code (IRC) for reviewing construction of single family houses in the FHA

Consider Grading plan requirement for building permits, with additional requirement for recharge for new lots that are not part of a subdivision that has an approved stormwater management plan. There is an existing ordinance but it is limited in scope. Many towns have fees for the review of grading plans. Not sure if that would be desirable in Ocean Township.

Consider Free board Elevation Requirement Currently the flood damage prevention ordinance requires that the lowest floor be elevated to or above base flood elevation. A freeboard elevation would require it to be higher.

e. Stormwater Management

In place Stormwater Management Ordinance

Consider Recharge requirement for other than major developments

f. Drainage System Maintenance

The public works department maintains the Townships storm sewers, ditches and outfalls

g. Dune and Beach Maintenance

There are a couple small bay beaches both public and private along the bay shore. There are no dunes associated with those beaches and most are less than 30 feet wide. Ocean Township extends to the mouth of Barnegat Bay and there are some islands that have small beach heads associated with them. These are uninhabited and controlled by the state of New Jersey as open space.

Property Protection

Including relocation, acquisition, elevation, retrofitting, sewer bank up protection and insurance.

There is no program currently in place to provide for relocation, acquisition and elevation. Since Ocean County does not have an all hazards plan in place there is no funding available from FEMA for these activities.

- a. Relocation and acquisition were discussed as property protection options but were determined not to be viable alternatives. The main flood area of concern is along the bay front where dozens of homes may exist in a given neighborhood. To selectively remove or relocate houses would only further isolate the remaining properties which would still require the normal municipal services. Wholesale acquisition of properties within flood prone areas is not practical.
- b. Raising buildings is considered to be the best option for reducing the loss due to flood damage. The cost can be prohibitive for some property owners and there is currently no funding source available.

Flood Proofing

- c. Because of the many inlets, lagoons and back bay areas of the bay front and because of the predominant small lot size, the levees and floodwalls are not considered a feasible method of protection. Dry flood proofing is most applicable to commercial structures

which already have a substantial structural design. Most flood prone houses within Ocean Township are of frame design with open crawl space making flood proofing a difficult operation.

Wet flood proofing is currently recommended where a building is below the base flood elevation. This could involve permanently elevating fixtures and furniture to having materials on hand to elevate costly items in the event of a flood.

Installation of flood vents is required for additions and is strongly recommended on the existing portions of houses not undergoing renovation.

Flood certifications are required prior to starting construction and after completing the work.

Sewer Backup Protection

- d. Ocean Township is equipped with separate storm and sanitary sewers. There are no known sewer overflow points or locations of excessive infiltration. Sewer backup is not considered a problem since most houses within the floodplain do not have basements with deep sewers. The construction official was not aware of any problems with sanitary sewer backups.

Insurance

- e. Ocean Township participates in the National Flood Insurance Program. Homeowners are encouraged to maintain flood insurance to protect against loss of structure and contents in case of flooding.

Natural Resource Protection

- | | |
|----------|---|
| In place | Wetland protection through NJDEP freshwater and coastal wetland permit programs. |
| In place | Soil Erosion and Sediment Control regulation through New Jersey's Soil Erosion and Sediment Control Act. Required for all disturbances over 5000 SF. |
| In place | Best Management Practices through the Township's Stormwater Management Ordinance. |
| | Coastal Barrier Protection |
| | Ocean Township has no coastal barrier islands. There are lands within Ocean Township that extend to near the mouth of the Barnegat Bay. These are owned by the State of New Jersey. These do not receive wave action directly from the ocean. |

Emergency Services

- In place a) Hazard Warning
 There is a reverse 911 is in place.
- Consider Encourage residents to provide mobile phone numbers so they can receive emergency updates.
- Consider Encourage residents to provide email address so they can receive emergency notices via email.
 Police and fire department notify residents of emergencies via loudspeakers.

The Emergency Broadcast System is utilized in Ocean County. Storm notifications are sent by the National Weather Service to the State Office of Emergency Management then forwarded to the County Office of Emergency Management (OCOEM) for dissemination to the local offices. Warnings are placed on television and radio stations as well as on cable TV. In Ocean Township, the local Cable Access Channel through the cable television provider is channel 22. Should flooding be imminent to the local area, the local OEM Coordinator can then utilize various broadcast communication methods including siren system, mobile public address system and even door-to-door notification. The township's Emergency Management Plan provides for the methods of notification to the residents. Currently Ocean Township utilizes the Police and Fire Department for notification of flooding.

Critical Facilities Protection

The municipal building, police department, fire and first aid and both Township schools are located outside of the 100 year flood plain

Health and Safety Maintenance

Structural Projects

- a. Reservoirs/Levees/Diversions/Channel Modifications
Given the tidal flooding which is the main repetitive loss within Ocean Township and the non-linear nature of its bay front coastline most structural projects are not feasible. Detention basins or some other stormwater control are required for all development other than those along the coast which do not have an effect on the base flood elevation. Water quality measures are required. The Township does not maintain any Ocean beachfront and the bay front is generally not considered beachfront that would be appropriate for beach fill or beach replenishment. Bulkheads were discussed as structural projects. Generally only the street end bulkheads are maintained by the Township though there are exceptions. Most

bulkheaded areas are maintained by private property owners. There is a bulkhead ordinance in place in the Township that provides for the construction and maintenance of same. Residents who do not maintain their bulkhead may be cited and have to provide a corrective action plan to the satisfaction of the building inspector.

Consider Providing for a minimum and maximum finished elevation for new and reconstructed bulkheads to meet the needs for flood damage prevention while also limiting the exposed elevation of same.

Storm sewers

Consider Be more proactive in cleaning, repairing and upgrading storm sewer and other conveyance types such as ditches. Be cognizant of ponding and problem areas.

Public Information Activities

Map information

In place Flood Insurance rate maps are available for review in the Construction Office for residents who want to determine whether their property is in a flood zone. A log is kept of information provided to residents who come in to view maps or who call with questions.

Outreach Projects

Consider Adding a public event to distribute FEMA and flood information pamphlets such as at the haunted hayride held in the fall or at cleanup day in June.

Real Estate Disclosure

In place Form is provided to local realtors approximately twice per year. See Appendix XXX
Library

In place FEMA pamphlets are provided to the library twice per year or as needed.
Technical Assistance

In place The Construction office has several pamphlets and booklets concerning flood preparedness and the National Flood Insurance Program, flood venting, etc.

Environmental Education

Consider Adding children's pamphlet about environmental stewardship and distributing at the local elementary school.

Next meeting will be held Tuesday, February 28, 11:00 am

Agenda
Floodplain Management Committee Meeting
February 29, 2012

- Draft Action Plan
 - o Review of the possible activities and who will complete the activities to be considered

Date of Meeting: 2/29/2012

Meeting Location:

Minutes Prepared By: Ray Savacool

1. Purpose of Meeting

Floodplain Management Committee Meeting
Draft Action Plan

2. Attendance at Meeting

<i>Name</i>	<i>Company</i>
Ed Alvare, Construction Official	Township of Ocean
Laurie Clune, Zoning Officer	Township of Ocean
John Petrosilli, Resident	Homeowner
Jim Oris, PP	T&M Associates
Ray Savacool, Engineer	T&M Associates

3. Meeting Notes, Decisions, Issues

The Committee reviewed all potential activities for further discussion and potential action.

1. Preventative Activities

d) Building Codes

Proposed a grading plan ordinance requirement. The Construction Official will provide a draft ordinance. All the potential ordinance changes will be addressed to the Mayor and Committee for their consideration.

Propose a free board elevation requirement. Allot that additions on existing compliant homes can be at same elevation as existing finished floor.

e) Stormwater Management

Provide for a recharge requirement for other than major developments.

f) Drainage System Maintenance

Seek grants where available for stormwater improvements.

4. Emergency Services

a) Hazard Warning

Encourage residents to sign up for swift 911 emergency notification registry with either phone or email.

5. Structural Projects

b) Levees/floodwalls/seawalls

Provide for a minimum and maximum finished elevation for new and reconstructed bulkheads.

f) Storm sewers

Be more proactive regarding cleaning, repairing and upgrading storm sewers. Currently the public works director coordinates the maintenance of storm drains and catch basin in accordance with the Township Stormwater Pollution Prevention Plan. RWS to follow up with the PW Director.

Public Information

b) Outreach Projects

Add additional public event to distribute FEMA and flood information pamphlets to the public.

Laurie Clune to consider additional community event such as the haunted hayride held at Waretown Lake in October at Clean-up Day held in June.

d) Library and e) Technical Assistance

Add additional pamphlets on flood venting to other provided to the library and at the construction office. The Construction Official will coordinate obtaining additional pamphlets for distribution.

Add pamphlets at Committee room so they are more assessable to the public.

f) Environmental Education

Obtaining children's coloring books or pamphlet for distribution to the local elementary school.