

**TOWNSHIP OF WAYNE**  
**New Jersey**



**FLOOD PLAIN MANAGEMENT PLAN**

October 4, 2000

Approved by the Wayne Township Council  
October 18, 2000

## **1. INTRODUCTION**

The Township of Wayne has experienced numerous floods, with recent major flooding occurring in 1984 ,1987 and 1999. Minor flooding occurs every 1 to 2 years. This plan was developed to coordinate the township's efforts to alleviate flooding and flood damage not only from a major flood event, but also from more frequent minor floods.

## **2. PLAN PREPARATION**

This plan was prepared through a series of committee meetings between January and June of 2000. The basis for this plan was the original 1990 Floodplain Management Plan. New items and items from the 1990 plan were discussed, evaluated and either recommended or not recommended in the new plan.

The review committee was made up of the following people:

Councilman Alan Purcell  
George Holzapfel, Director of Public Works  
Captain Orie DuBois, Office of Emergency Management  
John Szabo, Township Planner  
John Trontis, Superintendent of Landscape and Park Development  
Heather Vitz-Del Rio, Principal Engineer

## **3. FLOOD HAZARD**

The Township of Wayne lies within the central portion of the Passaic River Basin drainage area which encompasses approximately 650 square miles. Wayne is bordered to the west by three rivers. The Ramapo River lies along the northwest border of Wayne and joins the Pequannock River to form the Pompton River. The Pompton River then merges into the Passaic River along Wayne's southwest border. During flood periods, the water level in the Passaic River begins to rise, preventing the Pompton River from flowing into it. This causes the Pompton and Ramapo Rivers to back-up resulting in flooding. Additional minor flood areas lie along tributaries to these rivers along the Packanack Brook and Singac Brook.

There are two types of flooding which occur in Wayne, river flooding and stream flooding. River flooding occurs after extended periods of heavy rains, when the ground is already saturated by previous rainfall, or when the ground is frozen and cannot absorb the rainfall and snow melt. This type of flood event occurs over a period of days, with a substantial warning period. The majority of Wayne's flood areas are effected by this type of flood. The areas of Hoffman Grove and Fayette Avenue suffer this type of flooding on an almost annual basis, whereas the areas of

Old Wayne, Riverside and Riverlawn Drives, and Hobson Avenue historically have experienced flooding on approximately a five year cycle.

The other type of flooding in Wayne occurs along streams during flash flooding type storms. When heavy rains fall over a short period of time, the rainwater floods the streams. There is usually limited warning with this type of storm and although the flood waters subside quickly, they can cause flooding and erosion along the stream banks.

The most severe recent river flooding in Wayne occurred in 1984 and again in 1987. Hurricane Floyd in September of 1999 was an example of both stream and river flooding. Flash flooding occurred along the entire length of the Singac Brook during the actual hurricane on September 16<sup>th</sup>, and river flooding peaked three days later on September 19<sup>th</sup> as the runoff from the hurricane reached the rivers. 1100 Homes were effected by this storm and damages were estimated at \$5 million.

#### **4. REPETITIVE LOSS AREAS**

Repetitive loss properties are defined by the National Flood Insurance Program (NFIP) as properties that have two or more flood insurance claims of at least \$1000, in any ten year period. Wayne has 306 repetitive loss properties. The overall majority of these properties lie within 7 main flood areas: Hoffman Grove, Fayette Ave/Fairfield Road, Old Wayne, Hobson Avenue, Riverlawn Drive/Riverside Drive, Packanack Brook and Riverview Community.

The following is a summary of the approximate number and types of buildings in each repetitive loss area.

**Hoffman Grove** – This is a residential area off of Meadow Road with approximately 130 small bungalows on the banks of the Pompton River. The entire property is owned by an association, however; the homes are owned individually.

**Old Wayne** – This is a primarily residential area with some industrial properties scattered throughout. This is a low lying area on the western border of the Township along the Pompton River. There are approximately 260 residences in this area.

**Fayette Avenue/Fairfield Road** – This is a residential area of small bungalows on the banks of the Pompton River. There are approximately 160 residences in this area

**Hobson Avenue** – This is a residential area on the banks of the Passaic River. There are approximately 24 homes in this area.

**Riverlawn Drive/Riverside Drive** - This is a residential area along the banks of the Passaic River. There are approximately 210 homes in this area.

**Packanack Brook** – This is a residential area along the banks of the Packanack Brook. This area includes Winding Way, Laguna Drive, Edith Court, Herrick Road, Cedarcliffe Drive and the surrounding areas. There are approximately 155 homes in this area.

**Riverview Area** – This is a residential area on the northwest border of the Township along the banks of the Ramapo River. There are approximately 210 homes in this area.

## **5. FUTURE DEVELOPMENT**

Future development within the flood zone is restricted by the stream encroachment regulations from the NJDEP, by the Township Flood Plain Regulations and by the zoning regulations for the areas.

As per the NJDEP Stream encroachment regulations, no building is allowed within the floodway and all building within the flood zone must not create additional filling.

The current Township regulations requires a 1 foot freeboard above the flood level for all residential properties, except for manufactured homes which must be elevated to the flood level. Commercial properties must be elevated to one foot above the flood level or waterproofed to the flood level.

## **6. PLANNING GOALS**

The overall planning goals are to alleviate flood losses through the following elements:

- Public Awareness of the flood hazards, flood safety, property protection measures and insurance availability
- Acquisition of the highest risk flood properties
- Preservation of open space within the flood plain
- Maintenance of the drainage systems within the flood areas
- Retrofitting structures to prevent or reduce flood damage
- Capital improvements within the flood areas

## **7. EVALUATION OF ACTIVITIES**

The existing and proposed activities were evaluated against the planning goals and either recommended or not recommended.

### **Housing Rehabilitation Program**

This program, administered by the Planning Department, provides low interest loans to low and moderate income families to make repairs and improvements to their homes. These loans can be used to retrofit buildings to reduce flood damage. Retrofitting can include raising the hot water heater, furnace and/or electrical panel above flood levels, installing a backflow preventor on the sanitary sewer lateral or elevating an entire structure.

**Evaluation:** Currently, 10-15 homes are rehabilitated each year through this program; however, only 2-3 flood homes are included in this number. This program would be utilized by more flood plain residents if they were aware that it was available.

**Recommendation:** Promote this program in the flood area as a means of providing funding for retrofitting. A mailer should be sent to the flood areas describing the type of work covered and the funding available under this program.

**Timetable: Annual**

**Budget: Community Development Block Grant**

### **Zoning Regulations**

The current zoning regulations state that all residential buildings must be elevated to 1 foot above the flood level, all non-residential buildings must be either elevated 1 foot above the flood level or floodproofed to the flood level and all manufactured homes must be elevated to the flood level.

**Evaluation:** The current regulations should be updated to be consistent for all land uses.

**Recommendation:** Modify the regulations so that all new residential buildings, including manufactured homes must be elevated to one foot above the flood level. New commercial buildings should have the option of elevating or waterproofing to one foot above the flood level. Requiring elevation certificates and/or waterproofing certificates for all new structures within the flood zone should also be added to the regulations.

**Timetable: 1 Year**

**Budget: NA**

## **Flood Information**

The "Water Bulletin" is mailed out townwide every December. This brochure provides information on flood history, flood areas, flood safety, stream dumping and maintenance, and building regulations in the flood areas.

This year, a "Beware of Flooding" brochure was sent to all flood properties stating that the subject property is in the flood zone and giving specific safety measures to be taken before, during and after flooding.

These mailings are required under the CRS Program and must be done on an annual basis.

**Evaluation:** These mailings have resulted in numerous inquiries regarding basic flood information and flood insurance. The more general "Water Bulletin" did not result in as many responses as the "Beware of Flooding" brochure.

**Recommendation:** Continue with these mailings as scheduled and evaluate the response to each. Modify the mailings accordingly.

The next mailing to flood properties should also include information on the Housing Rehabilitation Program as discussed above.

**Timetable: Twice annually**

**Budget: Staff Time**

## **Drainage System Maintenance Program**

The current drainage system maintenance program is handled by the Waterways crew. This crew inspects and cleans all publicly owned drainage systems within the Township on an annual basis. They also respond after storms and to resident complaints.

### **Evaluation:**

The existing drainage system maintenance program is adequate but not well documented. There are also areas where access easements need to be obtained.

**Recommendation:** The Township will create a standard operating procedure for stream maintenance on township owned properties and park land including an inventory of publicly owned streams and waterways and a comprehensive drainage maintenance plan for these streams. Areas where easements are needed will also be located. Choke points and other problem areas will be addressed and a log will be maintained for all work done. This program will be coordinated through the Public Works Department and Parks Departments.

**Timetable: 1 year**

**Budget: Staff time**

### **Flood Warning**

Flood warnings are currently disseminated via police cars equipped with loudspeakers, television channel 20 and radio station messages.

**Evaluation:** The existing system give sufficient warning times to residents, however detailed information is more difficult to relay.

**Recommendation:** The Township will seek to implement a reverse 911 warning system for the flood plain area. This system will allow the Police Department/OEM to send out phone messages to all of the effected flood plain during a flood event. This system has been scheduled for purchase and implementation in 2001.

**Timetable: 1 Year**

**Budget: Community Development Block Grant**

### **Mapping of Flood Plain**

Current mapping of the flood areas include tax maps, street maps and zoning maps.

**Evaluation:** These maps do not give a good overall picture of the flood areas. Many of the streets within the flood areas are “paper” streets which appear as through streets on the maps but in reality are actually dead end streets.

**Recommendation:** The Engineering Division will create a map showing publicly and privately owned vacant and non-vacant properties within the flood areas. This map will also show paved streets with access vs. paper streets. This map will be designed for use in a GIS system for use by all departments. This map will also be used to compile a list of roadway right-of-ways surrounded by Township properties. These right-of-ways should be vacated to prohibit future development and consolidate Township properties into larger units.

**Timetable:1 Year**

**Budget: Staff Time**

### **Acquisition of Flood Properties**

The committee reviewed various acquisition options.

**Evaluation:** It is not the goal of the Township to buy-out the entire flood plain. This would displace residents and eliminate revenue for the Township. The Township should seek to acquire the flood properties where there is the highest risk to residents and the most damage to property. All acquisitions should be voluntary.

#### **Recommendations:**

- Continue the Blue Acres Buy-Out Program. This State funded program will purchase and demolish 26 homes within the floodway, the most severe flooding areas, this year at little cost to the Township.

- Assist the Army Corps of Engineers with the Passaic River Preservation of Natural Flood Storage Areas Project. This project seeks to purchase easements on vacant flood properties to prevent future development.
- Support the Hoffman Grove Subdivision to “subdivide” their property into individual lots. Hoffman Grove is not considered for any State funded buy-out program because the entire site is considered one lot, similar to a condominium development. Hoffman Grove homes cannot be included in any buy-out programs until individual portions of the entire property is associated with each individual home.
- Seek to acquire the highest risk flood properties. The Township should determine which properties should to be purchased. Isolated properties in the most frequently flooded areas should be given the highest priority.
- Seek to vacate “paper” streets in the flood areas that are contiguous to Township owned properties. Also seek to consolidate individual township owned lots into single lots.
- Seek to acquire flood properties through tax foreclosures and set a policy to prevent flood properties from being sold at tax sales.
- Investigate land swap legalities. Determine if high risk flood properties be swapped for lower flood risk, Township owned flood properties?
- Investigate transfer of development rights for flood plain properties.

**Timetable: Report progress in 1 year**

**Budget: Staff Time**

### **Dike and Levee System**

A dike and levee system could be constructed to protect buildings within the flood zone.

**Evaluation:** A dike and levee system would have to include neighboring municipalities and would also need State approval. This is beyond the scope of municipal government and would have to be administered on the State or Federal level. A dike and levee system would also require a great deal of area for construction of the dikes and levees and would most likely require the acquisition of many of the homes we are attempting to protect. A small dike system to prevent more frequent, lower level floods might be within the Township’s ability.

**Recommendation:** No action by the Township at this time. A long term goal should be to study the cost effectiveness of building a limited dike system in the Old Wayne area to prevent flood waters from reaching the homes in the lower risk areas of the flood plain.

**Timetable: Long Term**

**Budget: Staff Time**

**Creation of an Open Space Area**

An open space area could be established along the banks of the Pompton River in the Old Wayne area.

**Evaluation:** Once some of the flood areas along the river are acquired, they could be used a recreational purposes. Use of the area as for ballfields was discussed but not considered because existing fields in this are high maintenance. Use of the area around the Route 287 wetlands mitigation site as a “greenway” or a nature preserve was also suggested. Items such as walking trails would result in minimal disturbance of the area.

**Recommendation:** Long term plan to establish a “greenway” areas along the Pompton River. All properties acquired in this area should be deeded as open space. Once enough area is acquired, a plan of the open space area should be established.

**Timetable: Long Term**

**Budget: Staff Time**