



The Avalon Home and Land Owners Association

HARRY DEBUTTS, AVALON PUBLIC WORKS DIRECTOR

FLOOD MANAGEMENT

APRIL 2006

Harry deButts stated that this meeting was to inform the public of the steps that the Borough of Avalon has taken in the past and will take in the future to mitigate against natural and other disasters and to solicit public input. He discussed the history of flooding in Avalon starting with the 1962 storm. Slides were shown of the effects of not only that storm, but also storms that occurred in the 1980's and early 1990's.

Because of Avalon's location on a barrier island it does not have storm water basins. The drains, e.g., on Dune Drive, are bubble-overs that transfer water from one side of the street to the other and as such are never completely dry. As a result the Cape May County Mosquito Commission sprays weekly to minimize the effects of mosquito infestations.

For emergency planning there are few options. Dune Drive runs due southwest to northeast. The seawall at Townsend's Inlet keeps the water out of structures between 8th and 20th Streets and has recently been reconstructed.

There can be a problem with obtaining flood hazard and wind insurance if the Borough does not take steps to mitigate against natural disasters. The Community Rating System (CRS) program gets communities to improve safety thereby setting the discount residents get on their flood insurance premiums.

History has shown that when the main channel in Townsend's Inlet hugs the southern shore there is a stable beach at the north end of Seven-Mile Island. The dunes along the beachfront are part of the infrastructure and properties are at risk if the dune system is compromised. The beach area between 17th and 28th Streets could be taken out by a few months of stormy weather.

A number of steps have been taken by the Borough to minimize flooding:

- To maintain the beaches in the past the Borough has used two army surplus earthmovers to move sand from center-island (where the beach is accreting) to the north end. In addition beach fills have been carried out, the most recent being about four years ago. These are expensive and although moneys from the state and federal authorities are obtained through a fifty-year program these funds are not guaranteed since no one Congress can hold another Congress to ransom. As a result a beach fill may not occur. Recently the Borough trucked 50,000 cubic yards of sand from the mid-island beaches and dredged 300,000 cubic yards from Townsend's Inlet onto the northern beaches.

Geo-tubes were used to relieve pressure on the sea wall in the inlet. These lasted about 8 years.

- Splash walls were installed at street ends facing the northeast to divert wave action back into the ocean.

- The beach paths run toward the southeast to prevent waves from the northeast having an easy path to the streets behind. Wooden walkovers have been replaced with 15 gravel paths since it was found that the walkovers were being lifted by sand action.

- Duckbill valves have been fitted to storm outlets in the bay to prevent water backing up. Water flows into the bay when the tide recedes.

- Several pumping systems have been installed along Ocean Drive to build a head pressure to keep bay water out, however, if the power goes out the pumps fail. [If water overflows the bulkheads, then nothing can keep water out of the town.]



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- Stringent building codes are enforced.

A map was shown giving the sites of repetitive claims for flooding. These were concentrated in the northern part of town along the beach and in the business district of Ocean and Dune Drives.

The Borough has raised its facilities above flood elevation, e.g., the Public Works yard has been totally raised and has emergency power that enables it to be used for temporary evacuations.

When should evacuation from Avalon occur? How would one hear about it?

All disasters are local. The response starts and ends locally. The siren system in the Borough has been replaced. Speakers have been installed at the siren locations, but at this time cannot be heard all over town. The sirens are activated only when the need arises and have battery back-up. The main idea is to get peoples' attention. There is also the local emergency radio station at 1630 AM, and the computer modified sign at the entrance to town. The cable system can no longer be used for local emergency warnings.

Since there are only two main evacuation routes from town - Route 9 or Routes 83/47 - it will take about 36 hours to evacuate the town. Barrier islands will evacuate for a full Category 1 hurricane; Cape May County will evacuate for a Category 2 storm.

Before an emergency occurs personal preparation has to occur. A demonstration of the contents of an "evacuation box" was given and a list of needed papers, records, food items, etc. was given.

What further steps is the Borough taking for emergency preparation?

- More pumping stations will be installed.
- More force basins will be installed along Ocean Drive.
- An evaluation of flooding problems at 76/77th and Ocean is being done.

The Borough has a close working relationship with government officials to get heads-up information on developing events and to determine when evacuation might be timely.

In view of the expense of routine sand transfers along the beach and beach renourishment through dredging the Borough will look at a sand back passing system such as is in operation at Indian River, DE.