



# The Avalon Home and Land Owners Association

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COASTAL ZONE MANAGEMENT

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Dr. Mihalasky began his talk on Coastal Zone Management by giving some history of Townsend's Inlet. He stated that in old maps the curvature of the words indicated the flow direction of the currents in the inlet. In 1706 the islands were called the Seaboard Islands, and it was not until 1771 that Townsend Inlet and 7-Mile Beach appeared in the records. In 1877 Avalon was called Leaming's Beach. Maps in 1884 showed the placement of the streets (and showed 5th and 6th Streets). Aerial photos from the 1920s showed the railroad bridge over the inlet; the current hugged the south shore of the inlet. The road bridge did not appear until 1939. By 1952 5th Street was gone. Photos were shown of the Borough before and after the 1962 storm.

The bulkhead/sea wall was built in 1963 to counteract the effects of the storm. The channel was pushed out to the center of the inlet by the groins and the dogleg jetty. Beach renourishment of Sea Isle City changed the course of the channel further; this resulted in a lot of erosion on the Avalon side. By 1995 the dogleg jetty had been extended and geotubes had been put in place.

In 2001-2002 the 8th Street jetty was repaired and extended by about 450 ft. In addition the US Army Corps of Engineers carried out a large beach replenishment program on 7-Mile Island that resulted in sand being pumped from the inlet. The Beaches at 12th, 14th and 16th Streets are fine, not much of the beach fill has been lost due to weather.

The Avalon high dunes give a good solid base for beach maintenance. This area has shown an increase in the beach in the last thirteen years.

New technologies have been developed in order to assess the viability of the dune system. Probably the most promising is the LIDAR system. In this case laser pulses are used to assess the beach. An airplane fitted with a laser generator takes readings of the height of the dunes to an accuracy of 5 to 8 cm. The location of the aircraft is fixed by GPS. Over a million points are taken along the beach. LIDAR enables one to determine the susceptibility of the dunes to storm action, by showing where the weak points are. A test program has been done at Holgate on Long Beach Island. Weak points were determined, including ones created when homeowners removed dunes to improve the ocean view.

On the bay side the need for dredging is paramount. From the late 1940's until 1970 development included building fingers into the bay using dredge material to build up the land surface. Now we are faced with islands being formed in the middle of lagoons. Semi-choked waterways decrease property values because it becomes impossible to get boats into the docks. There is a lot of economic activity along the Intra Coastal Waterway (ICW). Jobs have decreased about 40% in the last 30 years because of clogged waterways.

Not too long ago dredge islands were in vogue to dispose of dredge materials; examples of these are to be seen behind Ocean City. Now uplands disposal is more in vogue, however, the NIMBY principle applies. The Europeans lead the way in developing uses for these materials. Some of the beneficial uses that have been used are:

- Glass aggregate and tile manufacture;
- Landfill capping and brownfield reclamation (for example in PA)
- Manufactured soils ( a pilot project is being carried out in New Jersey)
- - Soft aggregate for paving materials, concrete (including concrete blocks), building materials and other cement products.