

Opinion: Maybe the right Longport jetty would enhance beach-building success

We were glad to read recently that a unit of the Stockton University Coastal Research Center has been gathering detailed information on New Jersey beaches for more than three decades. That's exactly what is needed to see through the wild shifts in beach sand and show what's really happening.

The center's New Jersey Beach Profile network has been monitoring 107 sites along the state's entire developed shoreline and in all coastal municipalities, with sites about a mile apart. Twice a year, the network has measured changing shorelines, erosion, sand volume and even sandbars in near-shore waters.

The time frame matches up nicely with when the U.S. Army Corps of Engineers got serious about beach-building projects in the mid-1980s.

That puts the center in position to judge the effectiveness of beach-replenishment projects. People tend to remember when a storm removes a lot of recently placed sand — and to not notice as sand is redeposited naturally over the following six months. But 30 years of measuring and data smooth out storm-related volatility.

The verdict: The \$1 billion spent replenishing New Jersey beaches since 1985 has been worth it, restoring and maintaining beaches where there would be none and protecting billions of dollars worth of barrier island properties, said Stewart Farrell, the center's director. Additional damage from Hurricane Sandy alone would have cost much more.

This confirms the longtime consensus that beach replenishment works and hard structures such as jetties, groins and seawalls are ineffective or make erosion worse. A seven-year state study in the mid-1990s of 83 New Jersey beaches showed shorelines with jetties and groins lost sand, while natural beaches suffered little erosion damage and in some cases even grew.

And yet, interestingly, when the Army Corps asked the center's opinion on what to do about excessive sand loss on Absecon Island, it recommended lengthening the Longport jetty by 700 to 800 feet. That would cost \$15 million but reduce replenishment spending by more.

The littoral drift of water and sand is southward, so long jetties jutting into the Atlantic cause much of the flow to circle back and deposit sand on beaches north of the jetties. They also starve beaches to the south of sand. A prominent example is the jetty at the Cape May Canal, which has massively extended Wildwood beaches and caused the community of South Cape May to disappear into the sea.

The long jetty at the south of Brigantine has built up a big beach there — and robbed beaches from Atlantic City to Longport of some of the sand nature intended for them.

A longer Longport jetty would put more sand on beaches in that town and farther up the island, some of it destined for Great Egg Harbor Inlet, where it can only interfere with boating, as far as people are concerned.

But some of the captured sand would have gone onto Ocean City beaches. Note the large beach on the north end of that municipality.

Perhaps the answer would be a Longport jetty long enough to significantly help Absecon Island beaches but short enough to not impair Ocean City beaches.

We recommend that if a jetty project is undertaken, the shortest estimate for an ideal length be constructed first. Then, if future monitoring by the Coastal Research Center shows it is warranted, length could be added incrementally.

Yes, a careful and measured approach might be more expensive. But getting the jetty wrong would be much more costly and unfair to one of two very important islands at the Jersey Shore.