

The town of Emerald Isle wants to realign the channel in Bogue Inlet in an attempt to protect a handful of houses and get sand for its anticipated beach nourishment project. The plan is to dredge an enormous channel through the center of the inlet and take sand from the inlet's tidal deltas, the bodies of sand located between Bogue Banks and Bear Island, and place it on the beach. This project, which will do nothing more than allow a few privileged waterfront property owners to enjoy their views a bit longer, is a deplorable idea that may have significant environmental repercussions along the entire North Carolina coast.

In every barrier island chain in the world, huge bodies of sand called tidal deltas exist in the inlets that separate individual islands. The sand body that protrudes offshore is called the ebb tidal delta while the body of sand within a lagoon, or towards the back-side of an island, is called the flood tidal delta. Tidal deltas are essential components of barrier islands because they contain sand that moves from one barrier island beach to another. In other words, a tidal delta is actually a part of the island.

While the total volume of sand in an inlet's tidal deltas can be greater than the total volume of sand on adjacent islands, it is widely acknowledged that tidal deltas should not be used as a source of nourishment sand, unless it involves the maintenance of an existing navigation channel. When sand is removed from either an ebb or flood tidal delta, it leaves a hole that will gradually fill up. The sand that falls into this hole is the same sand that would otherwise have been transferred from one beach to another. In Folly Beach, SC, for example, sand was removed from the flood tidal delta behind the island. This hole is now filling-in and every grain of sand lost into the hole is a grain of sand lost to the adjacent island. The Dutch, who learned this lesson long ago, require that sand mined for beach nourishment be located a minimum of 15 miles from the beach.

Tidal deltas, however, remain very tempting because the sand is usually ideal for beach nourishment, and because their proximity to an island makes the sand relatively cheap. Coastal Science and Engineering, Co. (CSE), the consultant hired by Emerald Isle, proposes to move and significantly expand the channel in Bogue Inlet. The sand that is removed is to be placed on the beach. Normal channel re-alignment performed on an annual basis by the US Army Corps of Engineers (ACE) at Bogue Inlet does not remove any sand from the delta. It simply places sand to the side of the existing channel. CSE proposes to completely remove over a million cubic yards of sand.

The use of the term "channel re-alignment" is a disingenuous characterization of the proposed project and an underhanded tactic of the US Army Corps of Engineer's Wilmington District. Proving once again that it is a bad neighbor, tolerable only because of its political influence and deep pockets, the Wilmington District recently used the "channel re-alignment" argument to justify the removal of sand from Shallotte Inlet to nourish Ocean Isle Beach, in spite of the fact Professor William Cleary of UNC-Wilmington noted it would create additional erosion problems on adjacent Holden Beach. The state of NC issued a permit for the project and allowed it to go ahead

because they were deceived, as were we, by the use of the term “channel realignment,” just as we believe it is now being used to obscure the truth about Bogue Inlet.

The reason the beaches of Emerald Isle even need to be nourished is because beachfront property owners have built too close to an eroding shoreline. If Emerald Isle needs sand so badly, it should pay the price and go offshore to get it.

Mining sand from the tidal deltas of Bogue Inlet will not only set a poor local example, it will set a poor national example. It is one thing to expect the public to pay for a nourished beach to bail out a small number of affluent property owners, it's quite another to expect us to permanently damage the coastal environment while bailing them out.

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