

In a recent op-ed piece, the mayors of Pawleys Island, Folly Beach, Edisto Beach and Hilton Head Island spoke out in favor of building groins along the South Carolina coast, even though the SC Court of Appeals recently issued a ruling that the state's Beachfront Management Act prohibits groins from being built or refurbished. This was a correct interpretation of the state's anti-armoring legislation, and a decision that promises to be a big step towards the preservation of SC beaches for future generations.

Officials from OCRM, including Bill Eiser and Chris Brooks, are also supporting legislation to overturn the anti-armoring legislation. This should come as a big disappointment to the citizens of South Carolina since OCRM is the agency entrusted with the preservation of SC beaches for the future. As such, they certainly should not be leading the charge in a direction certain to create more problems for the state's beaches

There is a long history of groins on shorelines all over the world, and it is very clear that these walls, built perpendicular to the shoreline, usually do more long-term harm than good. Groins are built to trap sand, and wherever that sand was going – in a so-called downdrift direction – will suffer from a loss of sand. As a result, erosion rates are increased.

Placing groins in beach nourishment projects is of dubious value as well. For one thing, when big storms occur, groins direct strong currents - parallel to the groins - that carry large amounts of sand seaward in an offshore direction. After Hurricane Hugo, for example, sidescan sonar studies showed gullies excavated on the continental shelf adjacent to each of the groins on Pawleys Island. The point is that much sand loss is offshore, especially during storms, and groins will have little impact on holding such sand in place. They may even accelerate loss. Groins emplaced on a nourished beach and covered by sand won't have any impact on holding the beach in place until the ends of the groins are exposed. Once they are exposed, sand trapping will begin and sand that should move down the coast is prevented from doing so.

The mayors' contention that groins are useful in certain special cases, a position encouraged by OCRM, is wrong. There is a strong north-to-south trend of sand transport along the SC coast, and it's hard to imagine any form of coastal engineering that would not have an impact on adjacent beaches. The mayors clearly feel that groins will help solve the problems in their communities as well as on Hunting Island State Park. But, in spite of their denials, allowing groins in their communities would be opening the barn door for a lot of other communities to follow. Holding the line to preserve SC beaches for the future is not going to be easy. But we must consider more than just the immediate and short-term needs of coastal communities. There are a lot of other

South Carolinians that use the beaches who would prefer not to have to clamber over stone walls in order to take a morning walk on the beach.

Since OCRM is failing to take the leadership role in preserving beaches for future generations of South Carolinians, I fear that the decision mantle has been passed from the state to local beachfront community politicians and their consultants. A much broader spectrum of people must be involved in these decisions. I can understand where the mayors are coming from, and I sympathize with their plight. There is an abundance of competent marine geologists and oceanographers in SC and I urge them to seek the counsel of local academic marine scientists who have no axes to grind on this issue.

The east coast of North America has over 200 years experience with groins, and those who fail to learn from the mistakes of the past are doomed to repeat them. Unfortunately for the citizens of South Carolina, the destruction of the beach by hard structures is a one-way processes. In other words, it is irreversible.