

**INDEPENDENT COASTAL
EXPERTS
CORPS/NPS'S PROPOSAL TO PLACE DREDGED MATERIAL ON
SHACKLEFORD BANKS**

As explained by Dr. Orrin Pilkey, James B. Duke Emeritus of Geology Professor at Duke University:

Shackleford Banks does not need any sand. While Shackleford is eroding, it is no different than the vast majority of barrier islands worldwide. Shackleford is doing what all undeveloped islands are doing. It is responding to sea level rise. It is thinning down to get ready for sea level rise.

There is no erosion 'problem' at Shackleford. The current erosion at the western tip will not eat up the island and reflects why the state has designated inlet hazard zones (*i.e.*, reduce development near inlets). It should be noted that the area being lost to erosion did not exist 50 years ago, but was created by a relatively recent buildup of sand at the west end of Shackleford. The jetty now located among the dunes in the middle of the island was in the water during the World War II.

Why nourish almost half of Shackleford's beach length to repair 'damage' at the inlet? This disposal will simply delay the island's natural response to sea level rise, which is what national seashores are all about. It's not even clear that disposal of dredged material at the middle of the island will benefit the western tip.

Charles "Pete" Peterson, Distinguished Professor at the University of North Carolina, Institute of Marine Sciences, agrees that putting beach-quality sand provides no natural benefits, while allowing the island to erode – even if dredging is the cause – would provide benefits to Shackleford. As explained by Dr. Peterson, "Two wrongs don't make a right, and the cure is likely worse than the disease. The western end of Shackleford is a breeding area for shore birds, and it still has active, healthy dunes. Having that as a mobile point is providing habitats. It would allow shoals to form where birds feed. It represents critical habitat that we don't have much of. It forms a unique complex. That system as a whole is more valuable than the separate parts."

Stephen Fegley, a Research Associate Professor at UNC-IMS specializing in barrier island ecology, also questions the wisdom of placing dredged material at Shackleford Banks. As explained by Dr. Fegley:

NPS has acknowledged that barrier islands are 'dynamic' systems. Yet, the goal of placing dredged material on Shackleford to maintain a set point of island size ignores this principle. One of the identifiable 'resources' present on barrier islands is their movement, via accretion and erosion, and how the ecological communities respond to that dynamic environment. Trying to stabilize a barrier island actually removes this essential character for education and research purposes and, seen from this perspective, goes against the NPS mission. This is

like preserving a roller coaster for future generations by welding the train to the tracks so it does not shake the structure – that hardly captures the essence of the roller coaster.

Beaches are not just geological structures. Although beach fauna and ecological uses of the beach are not as obvious as other habitats, research has shown that beach disposal has the potential to affect organisms dependent on the beach for both short and long time frames. Beaches also appear to provide important ecosystem services (by serving as sand filters) for coastal waters although this has been less well studied and has never been studied between nourished and unnourished beaches. The Corps and NPS do not recognize how rare and perishable an unnourished barrier island is where we can observe and appreciate nature responding to environmental factors without our intervention.

Michael K. Orbach, Professor of the Practice of Marine Affairs and Policy at Duke University explains:

Disposal of dredged material in the proposed area of Shackleford Banks would significantly and negatively affect one of the premier surf spots on the Atlantic Coast -- 'Rough Point'. This spot is famous, especially in hurricane swells, for its surfing. In hurricane swells, people come from up and down the Atlantic Coast to surf, watch the surfing, and for amateur and professional surf photography.

So, the proposed disposal off Shackleford will not only not increase recreational amenities of the Cape Lookout National Seashore, it will significantly reduce them! It is also, by the way, a premier shell-collecting location, which would also be affected by the disposal.

In its comments dated February 18, 2014 in response to the draft DMMP, the National Marine Fisheries Service found that the preferred alternative of placing dredged material on and offshore of Shackleford Banks would adversely affect essential fish habitat and federally-managed fish species. In its conservation recommendations, NMFS stated: “Disposal on Shackleford Banks shall be done only when other alternatives are not practicable and when closely monitored to evaluate physical benefits and biological impacts.”

In a letter dated May 31, 2011, NCDMF also expressed concerns regarding placement of dredged material on Shackleford Banks’ beaches. “Since Shackleford Banks is an undisturbed island, serving as valuable habitat to fish and rare species, and there is no development to protect by using the beach renourishment shoreline stabilization techniques, DMF sees no justification for the amount of disturbance that would be caused by including Shackleford Banks as a disposal area.”

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