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'Geotubes' offer long-term protection

The need for a long-term stabilization plan for Stump Pass has never been more evident than in the wake of this year's hurricane season. Stump Pass Beach at the south end of Manasota Key saw dramatic changes as a spit of sand a couple hundred yards long completely disappeared and active turtle and bird nesting areas on Knight/Palm Island were obliterated.

The Charlotte County Commission on Tuesday approved a measure that would seek easements from the state to install a previously approved "geo-tube groin system" north of the pass to stem the flow of sediment into the pass. With the county's expected purchase of a marina/boat ramp near the pass, the growing popularity with boaters and the millions of dollars already spent to dredge it, this proposed step is critical.

The groin system is essentially a series of several underground synthetic berms stretching a few hundred feet into the Gulf of Mexico. These sand-filled tubes are made of flexible, high-strength polyester yarn and block the flow of some sediment, creating more beach area north of the groin field and reducing sediment build-up to the south near the pass.

Geotubes have worked well in similar applications, such as on Egmont Key at the mouth of Tampa Bay. The former U.S. Army fort is now a state park and national wildlife refuge managed by the U.S. Fish & Wildlife Service and the state of Florida. Beach erosion led to the installation of geotubes a couple years ago.

The county's ultimate use of the Rocky Creek Marina, which it agreed to purchase for \$2.9 million pending a 60-day due diligence period, is intricately tied to preserving Stump Pass. Without a navigable pass, buying a marina to increase Gulf access doesn't make any sense.

Parks department staff presented four operational options to the commission on Tuesday, including the possibility that the county would lease the facility to a private operator. All of the four options would create more public parking and a launch site for boaters in the high-demand West County area.

Beach renourishment has proved to be remarkably successful along Charlotte's beaches. When Stump Pass was dredged, the sand and shell deposited along Knight Island created a vast new beach and dune area that protected the island from recent storms. The groin system on Stump Pass Beach could do likewise for Manasota Key, where erosion is an increasing concern.

The best thing about such systems, as opposed to dredge-and-dump renourishment, is the sand and sediment that builds up along Manasota Key will be the same that created the barrier island, rather than the more coarse dredged material.

The county's beaches were spared major damage from this year's headline-making hurricanes. It's encouraging that the county is taking this opportunity to protect Stump Pass and Manasota Key from the low-profile everyday pressures of wind and tide.