## **Commonly Asked Questions about the Terminal Groin**

**Will the terminal groin keep the inlet open?** No, the inlet will still need to be dredged, possibly even more frequently. The groin is not designed to keep the inlet open, in fact the state legislation enabling terminal groins requires an Inlet Management Plan be created to address this issue. (Reference: FEIS App. E)

**Will we be able to stop nourishing the East End?** No, plans call for nourishing the groin at least every four years with approximately 150,000cy of sand. We would also be continuing the frequent, regular nourishments we currently do. From 2002 – 2017 we placed an average of 58,468cy/yr. (Reference: 2017 Annual Beach Monitoring Report, p. 2-1)

**Will we save money with the groin?** No. The proposed groin and nourishment with monitoring is an additional expense, on top of current nourishment efforts. (Reference: FEIS pp. 3-21, 3-24, and App. H p. 9-20)

**How will we pay for a groin?** That has not been determined. It is assumed a tax increase will be required to pay for the initial construction and ongoing maintenance, monitoring and nourishment. BPART funds are already used for many things. If paid for completely with taxes the first year, it would require a tax increase of 38¢ <u>on top</u> of our current rate of 22¢. The costs averaged over the 30 years would result in an increase of 9.6¢. (Reference: THB 17-18 Budget Message, FEIS App. H Table 9-7)

**Where have groins been successful in stopping erosion?** The groin at Ft. Macon, NC, has been in existence for years. It has helped slow erosion around the fort, but has required massive nourishment on both sides of the inlet – many times the amount proposed for the Holden Beach groin. Groins have also been used worldwide and are sometimes effective at slowing erosion in the immediate area where they are placed. However, by their nature and design they often cause damage in other places. They have also been ineffective in many instances.

**What happens in a storm?** That is unknown. None of the modeling took storms into account. If the groin were damaged in a storm the Town would be obligated to repair it and nourish the project area.

**Is it true that the groin can make swimming more dangerous?** Yes, the groin can increase rip currents on one of our most heavily used recreational beach areas. The "T" on the end of the groin will help with rips, but they will still be more common than without a groin, both near the groin and further down the beach (Reference: App. H p. 7-65 and Fig. 7-57). There is also a danger of swimming near a groin from waves, scour drop-offs and climbing on exposed boulders.

**Is it true that groins just move the erosion further down the beach?** Yes. This process is well documented world-wide and should be expected on Holden Beach. Groins do not create more sand, they interrupt the flow of sand down the beach and starve "downstream" areas of sand. The modeling for this project did not look at any area west of the "project area" which ends around Avenue A.

**What is ongoing financial commitment to maintain the groin?** The Town (and the taxpayers) will be required by law to monitor and maintain the groin and repair any damage caused by the groin, both on Holden Beach and Oak Island for at least 30 years. The State also requires a financial assurance package from the Town. (Reference: App. E Inlet Management Plan p. 24)

**How does the cost of the groin compare to the Central Reach Project?** The groin is designed to protect 2500' of shoreline at an average annual cost of \$1,150,000, a cost of \$460/ft. The Central Reach Project cost \$15,000,000 and protects 4.1 miles, (21,648') and is designed to last 10-15 years. If it lasts 12.5 years the annual cost would be \$55/ft. The groin costs over eight times as much as Central Reach per foot of shoreline. (FEIS App. H, Table 9-7 and Annual Beach Monitoring Report p. 2-12)