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## Figure Eight Island Terminal Groin Fact Sheet

### Environmental Study is Egregiously Flawed

- The study fails to justify the need for a groin: the beach at Figure Eight Island is currently accreting and a groin is not needed; The study also states that the channel is positioned in an optimal position and no structures at Figure Eight Island are threatened.
- Contrary to federal law the study is used to justify a predetermined decision to build a groin. Figure Eight Island's Homeowners' Association Board of Director's (HOA board) and its consultants have been openly supportive to build a groin for years.
- The study fails to comply with federal laws such as Endangered Species Act and National Environmental Policy Act.
- The private HOA board has not secured property rights from property owners where the groin would be built; these property rights are required by law before any applicant can even apply for Coastal Area Management Act development permit.
- The HOA board also failed to secure property rights from the beachfront owners on whose properties the required beach fill would be placed.
- The modeling tools used to indicate future performance of the groin and its effects on the shoreline are inadequate:
  - The models are obsolete;
  - The models were not able to replicate past and known shoreline changes and they cannot be relied on to indicate the future ones;
  - The models are designed to measure movement of water and not of sand;
  - The models only show results for 5 years following the construction whereas the life of a groin is 30 years; and
  - The models are pre-conditioned to overestimate erosion given that they are based on the 2006 shoreline when Figure Eight Island experienced erosion.
- According to the study the north end of the Figure Eight Island would have to erode half way through the middle of the island (between Beach Road North and Oyster Catcher Road) and continue for two years before mitigation would take place

### Effects of the groin on the nature

- Rich Inlet, home to many species, including the federally threatened birds and turtles is one of the most stable natural inlets in North Carolina.
- The inlets channel's natural meandering between Figure Eight Island and Hutaff Island changes the shoreline position surrounding the inlet. However, the overall trend at Figure Eight Island over the past 70 years has been accretion. In other words, the beach has always come back after occasional periods of erosion.



- The proposed groin would negatively affect all the species that rely on the ephemeral sandy shoals for nesting, foraging and wintering.
- The effects of the groin on natural habitat are shown for the 2006 shoreline and do not include the added beach and associated habitats that have accreted naturally over the last eight years.
- Construction of the groin would:
  - Overlap with wintering habitat of the endangered Great Lakes populations of piping plovers; and
  - Destroy the wetlands located in the upland area of the sand spit.

### **Economics**

- The study significantly underestimates the cost of the groin and overestimates the cost of other alternatives:
  - The assessed 30-year cost for the groin is about \$19 million; and
  - Costs assessed by the official state Terminal Groin study show that a similar project would have a 30-year cost of about \$53 million.
- The study for a similar project in Bogue Inlet found that a groin would not be sufficient in addressing the erosion problems there. It concluded that other inlet management alternatives would be necessary and therefore a terminal groin was found not be cost-effective.. It is the same in the case of Rich Inlet