

sea level has risen the protected areas at False Cape-Chester Shoal and Cape Canaveral-Southeast Shoal have continued to be maintained, apparently at the expense of the region to the south which has become more crenulate in shape due to blockage of longshore drift from the north.

Natural inlets - are the breaches between barrier islands, usually cut during storms. They generally affect neighboring shorelines as they migrate alongshore, which causes the updrift side to accrete and the downdrift side to erode. After a natural or man-made inlet is cut, ebb shoals along the mouth of the inlet grow and shunt sediment across the inlet and partially maintain the supply of sand to the downdrift beach. Sea level rise will tend to trigger a chain of events which could result in larger shoreline retreat than would occur if the inlet were not present. A rise in mean water level increases the depth of a bay and increases the hydraulic efficiency of an existing inlet, thereby increasing the tidal prism. An increase in tidal prism increases the velocities in an inlet which in turn may deepen or enlarge the throat. The ebb shoal then demands more sediment from the neighboring shorelines as the inlet grows in size.

Natural tidal inlets also trap sediment in shoals on the bay side of the inlet (called flood shoals). Because of the reduced wave climate in the bay, these shoals are usually left behind as the inlet migrates and thus become a sink for sediment. As is the case with ebb shoals, the size of these shoals generally increases with the size of the inlet, and an increase in inlet size due to sea level rise will tend to remove more sediment from the beaches and store it in flood shoals.

A good example of the effect of long-term sea level rise on a natural inlet is Nassau Sound, Florida, shown in Fig. 6.3. Calculations of the volume of sediment contained in the ebb shoals by Marino and Mehta (1986) indicate addition of $6.3 \times 10^6 \text{m}^3$ of material from 1871-1970. The shoal volume is currently about $40.5 \times 10^6 \text{m}^3$. During this 99 year span, relative sea level rose 0.3 m. Long-term sea level rise will also promote creation of additional inlets, each with their own demand for sediment to maintain shoals.

Headlands - are natural intrusions of hard material on an otherwise sandy shoreline. These less-erodible features act as natural groins or breakwaters and compartmentalize a shoreline. A large single isolated headland usually causes a crenulate embayment to form on its downdrift shoreline, as is the