How Humans Affect the Geologic Change of North Carolina's Coast

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Abstract

Humans have left an impact on the geologic change of the North Carolina coast through the use of hard and soft stabilization tactics to stop erosion. Hard stabilization is defined as methods that use a hardened structure to stop coastal erosion. These methods include seawalls, jetties, groins, and revetments. All of these methods function by preventing the sand on the beach from being a part of a beach's natural growth cycle. Although these structures protect the stretch of coast they are designed for, they often speed up erosion in other areas. Soft stabilization is typically defined as erosion control methods that use sand and plants to protect an area. Common types of soft stabilization are artificial dunes and berms, beach re-nourishment, and sandbags. While all of these methods work with the beach, they are only delaying the inevitable movement of the North Carolina coast. Soft stabilization is also guilty of speeding the erosion of unprotected areas. Soft and hard stabilization are both outrageously expensive and really only slow the erosion of the coast.