

1.0 PROJECT PURPOSE

The Town of Emerald Isle proposes to address a severe erosion problem that is threatening existing development and town infrastructure along the west end of town in an area known as The Pointe and seeks beach compatible material to nourish approximately 4.0 miles of beachfront. This Environmental Impact Statement (EIS) will evaluate a full range of alternative erosion response measures including no action, abandonment/or relocation of threatened homes, and relocation of the inlet ocean bar channel to a more central position between Bogue Banks and Bear Island.

1.1 PROJECT LOCATION

Bogue Inlet is located on the border of Carteret and Onslow Counties in southeastern North Carolina and provides access to recreational and commercial vessels between the open waters of the Atlantic Ocean and the Atlantic Intracoastal Waterway (Figure No. 1). Bogue Inlet is bordered to the east by Bogue Banks and is situated approximately twenty-five miles west of Beaufort Inlet. The Town of Emerald Isle comprises the western eleven miles of the barrier island complex in Carteret County. West of Bogue Inlet is Bear Island, an undeveloped barrier island approximately three miles in length in eastern Onslow County.

1.2 BOGUE INLET HISTORY

Detailed geomorphic studies of the inlet, which covered the period from 1973 to 2001, determined that the Bogue Inlet channel was located midway between Bogue Banks and Bear Island in the early 1970's to around the mid 1980's. During this earlier period, the channel fluctuated to both the east and west. Beginning around 1984, the channel began a persistent movement toward the east with this tendency continuing today. While the eastward movement of the bar channel has caused serious erosion of the inlet or The Pointe shoreline and poses a serious threat to homes and infrastructure, the ocean facing beaches on the west end of Emerald Isle have accreted. This accretion, which has favorably impacted the western most 7,500 feet of the Emerald Isle ocean shoreline, is primarily due to the wave shadowing effect created by the east orientation of the bar channel. The eastward movement of the bar channel has had an opposite effect on the ocean shoreline of Bear Island as this island has eroded between 600 and 800 feet along sections closest to the inlet to around 100 feet at a point 7,500 feet west of the inlet.