

**Bogue Inlet Channel Erosion Response Project
Draft Environmental Impact Statement**

4.0 AFFECTED ENVIRONMENT

The Affected Environment section describes the existing environmental resources of the areas that would be affected if any of the alternatives were implemented. This section describes only those environmental resources that were found to be relevant to the decisions being made. It does not describe the entire existing environment, but only those environmental resources that would affect or that would be affected by the alternatives if they were implemented. This section, in conjunction with the description of the "no-action" alternative, forms the baseline conditions for determining the environmental impacts of the proposed action and reasonable alternatives.

Two areas were identified in order to delineate and differentiate between areas anticipated to receive 1) primary and secondary effects (Permit Area/Project Impact Zone) and, 2) areas anticipated to receive cumulative effects (Project/Survey Area) from work occurring within the Inlet. The basis for determining these two study areas were identified from the hydrodynamic modeling results (Appendix B Engineering Report - Appendix D Hydrodynamic Model), as well as from the sedimentation analysis conducted for Bogue Inlet (Appendix B Engineering Report [Sections 5 and 6]). Based on these analyses, the area of effect was predicted to occur in the immediate vicinity of the Bogue Inlet complex and along the southern portions of the Western Channel and Main Ebb Channel. A buffer zone was added to the predicted zone of influence by extending the Permit Area further up the reach of the Western and Main Ebb Channels, to the Atlantic Intracoastal Waterway. Additional areas portions of Bear Island, approximately 3,000 feet offshore of Bogue Inlet, and approximately 4.5 miles of the Emerald Isle shoreline (from the intersection of Sea Breeze Road and South Windjammer to the Land's End Subdivision). See Figures 6 and 7.

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