Summary: In March 2002, Mason Inlet was relocated 3,000 feet north along Figure Eight Island. Ms. Erickson, as the Engineer-of-Record for this highly unique project served as the project manager for the planning, design, NC DCM and U.S. Army Corps of Engineers permit processing, preparing the final construction documents and managing the project's construction. The project Contractor, Southwind Dredging constructed the project on budget and within the challenging 3.5 month construction window.

Key Project Elements:
- Design and Permit a 900,000 CY Channel Dredging and Two-Mile Beach Nourishment Project
- Comprehensive Data Collection (Hydrographic, Directional Currents and Tides 3 Months. Pre- and 2 Yrs. Post-Construction)
- Large-Scale Hydrodynamic Model and Flushing (Atlantic Ocean Three Inlets Connecting Interior Bays/Wetlands)
- Federal NEPA Documents (Environmental Assessment)
- Processed and Acquired all Regulatory Permits from the State of North Carolina and USACE Wilmington District
- Economic Analysis of Project Benefits and Costs for Project Financing
- Geotechnical Analysis of Channel Sediments (Inlet and Interior Channels, Impoundment Basin)
- Construction Administration Services

Project construction began in late December 2001 and was completed in April 2002. To date, the inlet has provided significant recreational benefits to boaters and beach users, improved flushing within the Middle Sound Estuary and AIWW, and beach nourishment to control erosion at Figure Eight Island. ECE worked with the USACE Coastal Inlet Program to monitor the changes in tidal currents, water levels and the sand budget for the adjacent beaches and inlet to evaluate the 2002-05 post-construction project changes. Ms. Erickson continues to periodically assist New Hanover County in the implementation of their special district financing program developed to pay for the project.

Challenges: The design needed to manage large quantities of sediment (900,000 CY) varying from beach quality to mixed quality requiring separation of fines for beach use. Significant improvements to water exchange and flows within the bay required large-scale modeling and high-level reviews by USACE, USFWS, EPA and special interest environmental groups.

Schedule/ Budget: The project's cost was within budget. The 5-year schedule from planning through construction was better than expected based on similar projects. The community, environmental special interest groups and government agencies deemed this project a success.