Charles D. Baker, Governor
Karyn E. Polito, Lieutenant. Governor
Stephanie Pollack, MassDOT Secretary & CEO

massDOT
Massachusetts Department of Transportation

2020 RESEARCH PROJECT STATEMENT

Research Topic:
Short Sea Shipping in Southeastern Massachusetts [Research Award – max $100,000]

Problem Statement and Objectives

Coastal areas in southeastern Massachusetts are heavily reliant on trucking for freight distribution. Trucking has a relatively large environmental footprint and is dependent on transportation choke points such as the Cape Cod Canal Bridges. Neighboring communities on the Long Island Sound have begun emphasizing water-borne distribution of bulk and non-bulk freight to reduce reliance on highway infrastructure. Shifting a greater proportion of non-bulk freight to short-distance water-borne modes of distribution (a.k.a. short sea shipping) could reduce environmental impacts, reduce truck traffic through the Upper Cape, and provide competitive pricing for small-scale manufacturers aiming for local markets.

This research project has the following objectives:

- Review current water-borne non-bulk freight shipping best practices in the United States, looking specifically at populated islands and small- to mid-size along the Long Island Sound.
- Review current freight shipping practices and capabilities in southeastern Massachusetts.
- Analyze the potential for shifting more non-bulk freight shipping to water-borne modes, and analyze the impacts of any potential shifts on congestion and emissions in the Commonwealth.

Anticipated Outcomes and Deliverables

- Literature review and synthesis of existing best practices for freight transportation to and from populated islands within the United States.
- A summary of current capacity and practices for water-borne freight transportation between areas of Cape Cod, the South Coast, and the islands of Nantucket and Martha's Vineyard.
- An analysis of the impacts of increased utilization of short sea shipping on congestion and emissions in southeastern Massachusetts.
- Proposed recommendations to MassDOT for improving the competitiveness of water-borne non-bulk freight versus other modes in southeastern Massachusetts.