# Research in Progress

## Exploring Short-Sea Shipping as an Alternative to Non-Bulk Freight Trucking in Southeastern, MA

### Research Need

The purpose of this project is to explore whether or not new options for short-sea shipping (*i.e.,* using coastal waterways to transport commercial freight to its destination) could be utilized to ease roadway congestion and reduce emissions associated with the transport of non-bulk freight to Martha's Vineyard. Under present conditions, coastal areas in southeastern Massachusetts are heavily reliant on trucking for freight distribution, which has a relatively large environmental footprint. Truck freight destined for Martha's Vineyard, in particular, utilizes roadways with heavy traffic and congested choke points, such as the Cape Cod Canal bridges.

### Goals/Objectives

The project will review existing waterborne freight practices and capacity in Massachusetts and analyze the feasibility of shifting some of the volume of non-bulk freight from roadways to waterborne modes.

This project will estimate the traffic, congestion, and emissions impacts associated with a shift to new waterborne options and provide information on the potential resulting economic and environmental impacts.

### Project Information

This project is being conducted as part of the Massachusetts Department of Transportation (MassDOT) Research Program with funding from Federal Highway Administration (FHWA) State Planning and Research (SPR) funds.

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**Performing Organizations:**
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**Project Champion:**
Benjamin Muller, MassDOT

**Project Start Date:**
May 2020

**Expected Project Completion Date:**
July 2021

### Methodology

1. Assess existing freight volumes and near future capacity to absorb additional waterborne freight at harbors that could service Martha's Vineyard—and perhaps Nantucket as well
2. Determine opportunities to shift some freight to new harbors, taking into consideration resulting economic costs and benefits
3. Quantify congestion, air quality, and greenhouse gas impacts resulting from new transitions to short-sea shipping
4. Provide a final report compiling the existing conditions, analyses, and findings associated with options for short-sea shipping

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