

Beverly, MA

FERRY DOCK RESEARCH AND RECOMMENDATIONS



COMPREHENSIVE BOSTON HARBOR
WATER TRANSPORTATION STUDY
MARCH 2019



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Project Scope

The Comprehensive Boston Harbor Water Transportation Study was launched in July 2017 with the goal of developing business plans for sustainable new routes for ferry service in Boston Harbor and the surrounding area that could be implemented within the next five years. The initial phase of the planning study considered potential sites as far north as Gloucester and as far south as Provincetown. As a result of a series of water transportation stakeholder workshops, thirty sites were identified as candidates for new routes. Each of these was analyzed by the consultant team with research on the physical conditions of the dock site as well as the potential to attract sufficient ridership. The results of this work were presented at a water transportation open house in November 2017, where additional information about the sites was collected from public officials and residents. Data on potential rider preferences had also been collected from a regional stated preference survey conducted in August and September 2017.

A subset of fifteen docks were selected for additional analysis and ridership modelling. Ultimately six of those docks were selected for two new routes. Business plans were developed for those two routes: an Inner Harbor Connector linking Charlestown, downtown Boston, the Seaport, and East Boston as well as a Quincy route that connects Squantum Point with downtown Boston and Columbia Point in Dorchester.

In Beverly, the historic town pier at Glover Wharf was one of the thirty sites initially selected for analysis. Presented here are the findings from the research conducted between August and November of 2017. The site profile contains the following information with sources footnoted:

- Site Analysis
- Transportation Access
- Recent and Planned Developments
- Demographics, including Population and Employment Characteristics
- Journey-to-Work
- Time Travel and Cost Comparisons
- Evaluation

For most of the sites, detailed travel time comparisons between a potential ferry service and existing transportation options are included.

By compiling this multi-faceted information for each of the thirty sites, the study evaluated all sites by the same basic criteria, which served to guide the selection of sites for more detailed modeling phases and for the development of new routes. This site was not selected for analysis beyond the initial phase due to the lack of a definitive dock site, the high operating costs from this location, and competition with the commuter rail. This report is designed to serve as a jumping-off point for planning future ferry service.

Listed below are the thirty sites for which dock profiles were completed. Sites with an asterisk (*) had regularly scheduled ferry service within Boston Harbor or to Boston in the summer of 2018 or at present. Sites with a caret (^) have a pier that has been used for ferry docking, though some of these are subject to tides.

Sites Recommended for Study by Workshop Participants

Municipality	Proposed Dock Locations
Gloucester	
Beverly	
Salem	Salem Ferry Terminal*
Lynn	Blossom Street Pier^
Winthrop	Winthrop Ferry Dock*
Chelsea	Mary O'Malley Park
Everett	Encore Boston Harbor
Boston	
- East Boston	Logan Airport Ferry Terminal* Lewis Mall Liberty Plaza
- Charlestown	Sullivan Square/Schrafts Navy Yard (Yard's End) Navy Yard/Pier 4* Navy Yard Pier 1^
- North Station	Lovejoy Wharf (North Station)*
- Downtown	Long Wharf North + South* Central Wharf* Rowes Wharf*
- Fort Point	Atlantic Wharf (South Station) Federal Courthouse/ Moakley^
- Seaport	Fan Pier (ICA)* World Trade Center West* World Trade Center East^ Dry Dock #4
- Dorchester	EDIC/Marine Industrial Park* Columbia Point at Fallon Pier^ UMass Boston at Fox Point^
Quincy	Marina Bay/Squantum Point*
Hingham	Hewitt's Cove*
Hull	Pemberton Point* Steamboat Wharf
Plymouth	
Provincetown	MacMillan Pier*

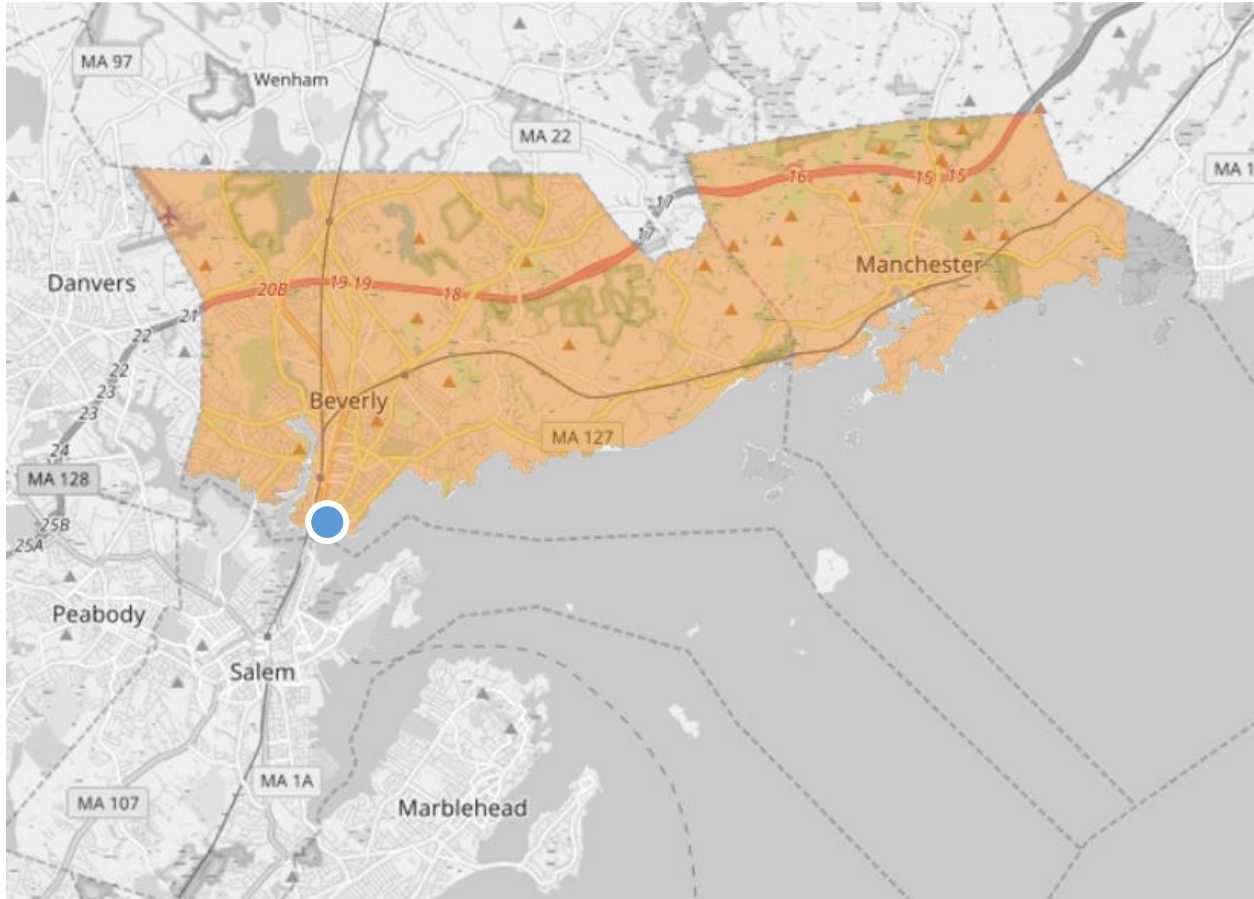
Beverly Ferry Site Candidate

Beverly does not currently have a designated ferry landing. The historic town pier at Glover Wharf might be a publicly-owned candidate for a future dock site.

It should be noted that the Beverly location market area overlaps with that of Salem Ferry Dock, which currently offers seasonal ferry service from May to October with discounted pricing for North Shore commuters.

Site Analysis

Map of Landing Site and Market Area¹

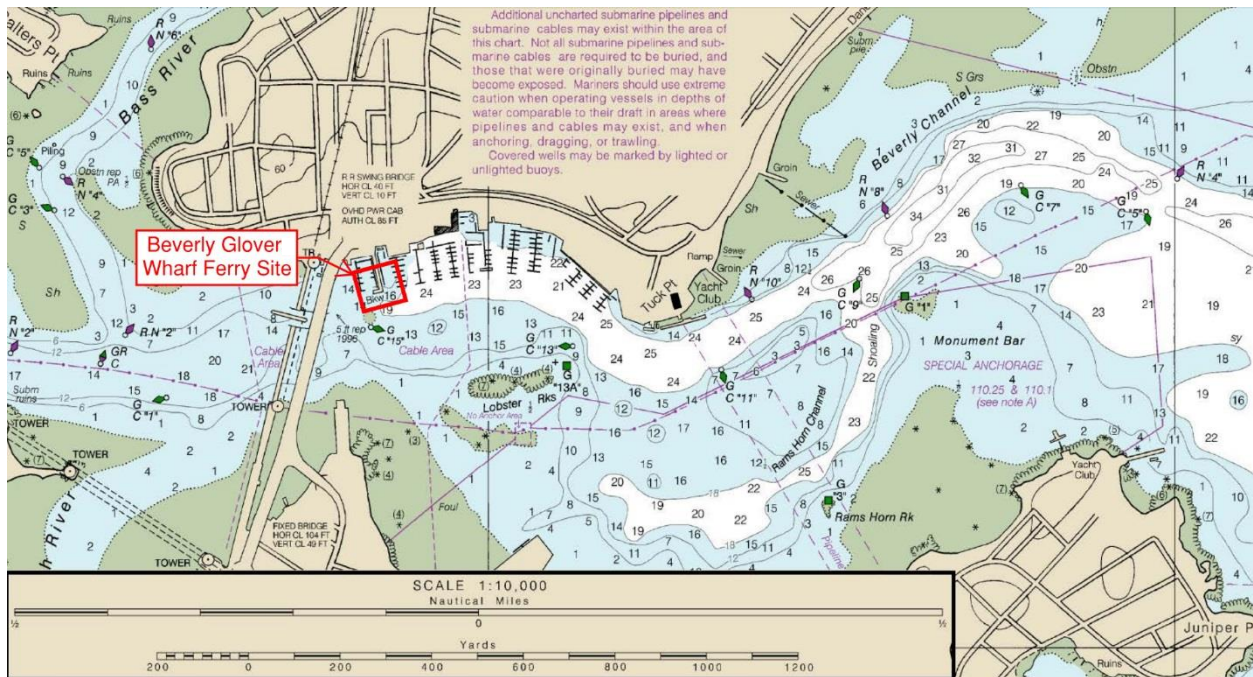


Site Characteristics

Longitude/Latitude:	42.5397018, -70.8858481
Market Area:	Beverly area commuters and visitors
Landing Ownership:	City of Beverly
Closest Street Address:	1 Water Street/Route 127
Notes:	Central waterfront public sites include Glover Wharf

¹ Sources: OpenStreetMaps, Steer

Aerial Chart and Photo of Landing Site²



Landings and Existing Service

Landing Site:	No landing site identified, but Glover Wharf is the historic town landing at 1 Water Street
Existing Landing:	No
Channel Access / Turning Basin:	Yes
Dredging Required:	No dredging needed
Berthing Capacity:	No
Wave Exposure:	Yes
Existing Pier/Bulkhead:	No
Existing Float:	Yes
Publicly Owned Property:	Public and private property at site

Site Infrastructure

Docking Conditions:	No ferry dock at site
ADA Access:	No
Rider Amenities:	Limited public amenities at harbormaster's office

Sensitive Shoreline Land Uses and Environmental Concerns

None.

Suitability for Emergency Use

The Beverly inner harbor site is well protected and suitable for evacuation of local buildings in case of flooding due to storm events.

² Source: US Department of Commerce, National Oceanic and Atmospheric Administration

Ferry Level of Service

There is no existing or proposed ferry service from Beverly.

Transportation Access³

The closest connections to public transportation are buses, including the MBTA's 451 bus (weekdays only) and the Cape Anne Transit Authority's Yellow Line shuttle. The Beverly Depot station on the Newburyport/ Rockport Line of the MBTA Commuter Rail is 0.6 miles from Beverly Harbor.

There is access for people walking and biking from the Beverly site to the downtown and to residential neighborhoods. There is no bike parking.

There is regional and local road access from the Beverly site via Water Street/Route 127. There is limited public and private parking around Beverly Harbor.

Beverly Market Area

Recent and Planned Developments⁴

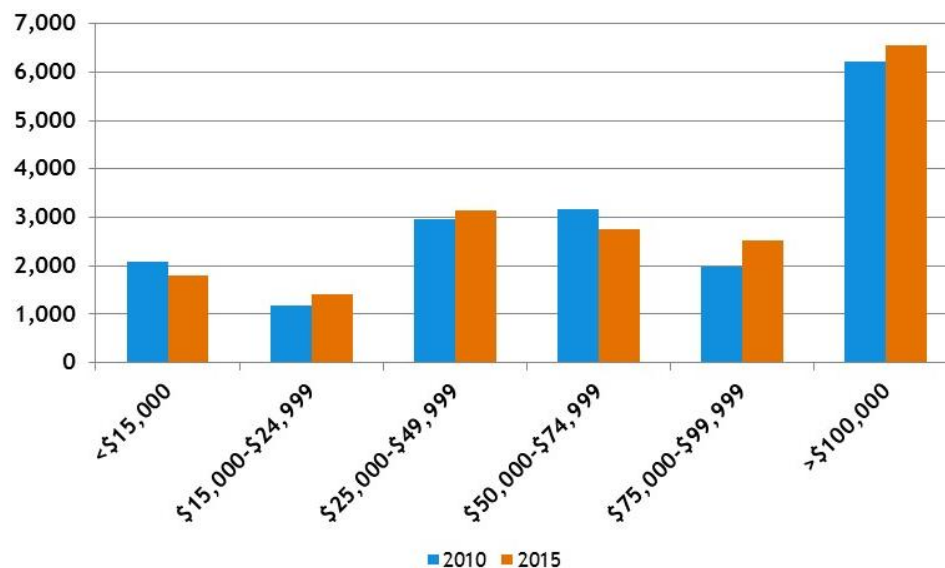
A Municipal Harbor Plan process for Beverly Harbor took place in 2014 and 2015.

Demographics⁵

Demographic Data for Beverly Market Area

	Market Area	Boston, MA	Avg. Boston Harbor Ferry Site
Population	38,302	667,137	45,814
Labor Force	25,922	393,455	31,091
Employed	24,098	366,164	28,763
Median Household Income	\$77,695	\$60,732	\$72,115

Distribution of Median Household Incomes for Beverly Market Area, 2010 and 2015



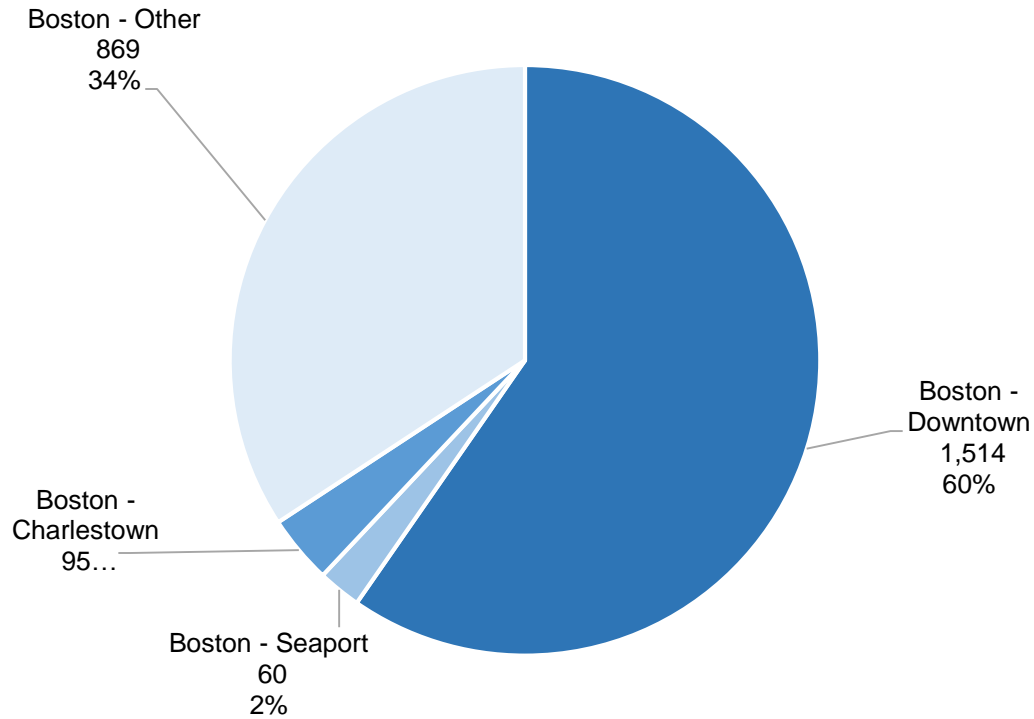
³ Source: Google Maps

⁴ Source: www.beverlyma.gov/departments/planning/beverly-harbor-planning, accessed September 2017

⁵ Sources: U.S. Census Bureau (2010, 2015), American Community Survey

Journey-to-Work⁶

Journey-to-Work Destinations from Beverly Market Area



Journey-to-Work Destinations from Beverly Market Area to Boston Central Business Districts

Commuters to Boston (Charlestown)	95
Commuters to Boston (Downtown)	1,514
Commuters to Boston (Seaport)	60
Commuters to Boston (Other)	869
Total Commuters to Boston	2,538

⁶ Sources: U.S. Census Bureau (2010), American Community Survey

Travel Time and Cost Comparisons⁷

Travel Times and Cost Comparisons by Different Modes of Transport

Mode	Total Time	Walking (Access/Egress)	Transfer	Riding	Trip Frequency
To: Government Center (Downtown)					
Auto - Low Est.	0:50			0:50	
Auto - High Est.	1:50			1:50	
Public Transit	1:55	0:08	0:14	1:35	0:30
Commuter Rail	1:04	0:13	0:09	0:42	0:18
Ferry via Long Wharf North	1:11	0:13		0:58	
To: Boston Convention & Exhibition Center (Seaport)					
Auto - Low Est.	0:50			0:50	
Auto - High Est.	1:40			1:40	
Public Transit	2:07	0:47		1:20	1:10
Commuter Rail	1:42	0:23	0:27	0:52	0:16
Ferry via World Trade Center	1:08	0:14		0:54	

Evaluation

Pros: Ferry travel times would be faster than expected auto travel times from Beverly. A ferry could be expected to complete the trip in 70 minutes, 40 minutes faster than a car with traffic.

Cons: Beverly’s commuter market to downtown Boston is modest, in the lower 10% of the sites profiles. The expected ferry travel time is five minutes slower than the travel time to downtown Boston via commuter rail. Beverly has a very limited number of commuters to the Seaport. With 70-minute travel times, there would be only one trip in each direction during the prime commuting hours unless there was more than one vessel. The long trip times also correspond to high operating costs, which would make it difficult to price tickets competitively with the commuter rail. The ferry service in Salem is viable because the majority of the sailings are targeted for recreational users, not commuters. Further, commuters from Beverly are in the catchment area for the Salem service and an additional direct service to Beverly could attract a portion of Salem’s existing ridership. Finally, there is no clear landing identified for potential ferry service.

Next Steps: Competition with existing commuter rail service (with time travel and possible frequency advantages) coupled with high operating costs and a lack of proposed landing site are all serious hurdles for a commuter ferry service in Beverly. A subsidized commuter ferry service would need to identify a landing location and determine a way to compete with the commuter rail. It would also likely need to add more commuters to downtown Boston in the catchment area. Currently, the combined catchment area for Beverly and Salem is comparable to the catchment area for the Hingham ferry terminal at Hewitt’s Cove. A market rate seasonal recreation service may be possible for the area, though Salem currently has more tourist attractions and an existing ferry service.

⁷ Sources: Google Maps, KPFF

Credits

Project Coordination

- Boston Harbor Now



Study Sponsors

- MassDOT
- Massport
- National Park Service
- Seaport Council of the Executive Office of Housing and Economic Affairs
- Massachusetts Convention Center Authority
- The Barr Foundation
- Cabot Family Charitable Trust
- Envoy Hotel
- Clippership Wharf



Consultant Team

- Steer (formerly Steer Davies Gleave)
- KPFF
- Moffatt and Nichol
- Elliott Bay Design Group
- Progressions
- Norris and Norris

