

# Water Transportation Study & Business Planning Update

*September 11, 2017*

# Two Water Transportation Studies

## Comprehensive Boston Harbor Water Transportation Study and Business Plans

- Baseline site profiles for planning of passenger ferry routes in the harbor



- Comprehensive business plans for up to three financially sustainable services that can be launched in one to five years

## Water Transportation Strategy for the Boston Harbor Islands National and State Park

- Baseline site profiles for planning new services at Park Gateway sites



- Strategy and scope for an RFP to procure a ferry service operator including recommendations for one or two new services

## **Deliverables:** Comprehensive Boston Harbor Study

**30**

site profiles

**Stated Preference Survey** to gather additional data on possible ridership

**10** sites

with models for estimated ridership demand

**3** corridors

detailed market and feasibility analysis + estimates of ridership, time savings, operating costs, deficits/subsidies, and seasonality

**Model** congestion mitigation and reduced emissions

**Financial Model + Business Plan** for up to 3 new routes based on these findings

## Project Schedule

### June + July 2017

- stakeholder workshops
- background research on existing conditions and potential sites

### Aug + Sept 2017

- site profiles
- recommendations of sites for further study
- **stated preference survey**

### October 2017

- develop an overall strategy with a set of sites and corridors being analyzed for market and operational feasibility

### Nov to Feb 2018

- overall strategy + strategic implementation plan

## Survey Update:



**Where would you ferry?**

**BOSTON HARBOR NOW**  
Are you on board?

*We want your input on travel across and around Boston Harbor...*


Visit [bostonharborsurvey.com](http://bostonharborsurvey.com) and enter the code **Sshore** to participate.

- Launched - August 21 (after live testing period & consultation w/ OPMI)
- To date: 2500+ taken
  - In person (on boat) interviews
  - Posters and postcards
  - Digital promotion
  - Key stakeholders & municipal partners
- Survey data analysis in begins in October

### Survey Update Continued:

Boston Harbor Now is conducting a comprehensive study of water transportation in Boston Harbor.

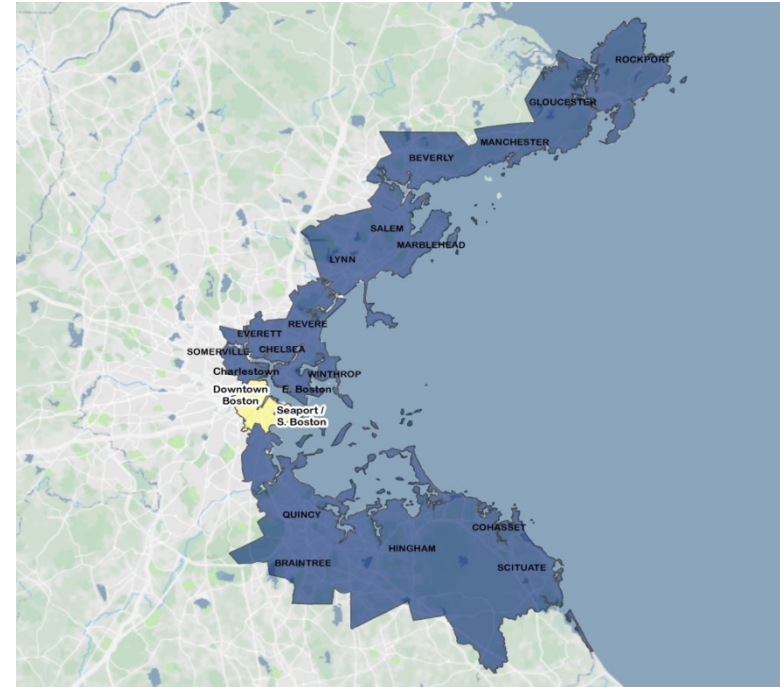
Participate in the process by visiting [bostonharborsurvey.com](http://bostonharborsurvey.com) and entering the code **Sshore**.



The results of this survey will inform the future of transportation throughout the Harbor.

The water transportation study is being conducted on behalf of Federal and State agencies. You can learn more about the process at [www.bostonharbornow.org/water-transportation-study](http://www.bostonharbornow.org/water-transportation-study).

This survey is being conducted by Steer Davies Gleave (SDG) [www.steerdaviesgleave.com](http://www.steerdaviesgleave.com). The information you provide will be treated as strictly confidential. Please send any comments or questions to [TravelSurvey@sdgworld.net](mailto:TravelSurvey@sdgworld.net).



Surveys coded to track outreach and enable project management team to promote targeted outreach.

Survey area developed from preliminary research of potential interest and ridership as well as feedback from workshops

### Next Step:

- BHN and consultant team to work with OPMI
  - Analyze survey data
- Present finds back to key stakeholders and municipal partners
- Public events and meetings
  - Water Transportation Advisory Council
  - MassDOT and FMCB
  - Seaport Economic Council
- Other activities? Organizations?

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detailed market and feasibility analysis + estimates of ridership, time savings, operating costs, deficits/subsidies, and seasonality

**Model** congestion mitigation and reduced emissions

**Financial Model + Business Plan**

for up to 3 new routes based on these findings



## Appendix

- Sponsors & consultant team
- History & summary of regional services
- Additional study objectives
- Past board presentation



# 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 Davies Gleave
- KPFF
- Moffatt and Nichol
- Elliott Bay Design Group
- Progressions
- Norris and Norris



# Ferry History

## 1600's & 1700's

*Before the bridges*

### 1630's:

ferry from Boston to Charlestown, Chelsea, and Cambridge  
+ Neponset River crossing  
+Fore River ferry

## 1800's

*New developments*

1829: Steam ferries begin operation

1833: Service from East Boston to downtown

1860: Leisure service to Nantasket

## 1900 to 1950's

*Flourishing to fading*

1900's and 1910's: peak period for passenger ferry service

1952: East Boston Ferry stops operating

## 1970's to 2000

*Mitigation*

1975: Hingham service (1984 mitigation for SE expressway expansion)

1987: Charlestown service (Central Artery North Area)

1997: Lovejoy to WTC (Third Harbor Tunnel)

Adapted from BRA's *Boston Inner Harbor Water Transportation Plan* (January 2000)





# Existing Passenger Ferry Service in Boston Harbor and to the Islands



# Hingham to Boston

## MBTA Service



**Docks:** Hewitt's Cove to Rowes Wharf

### Daily Service

Frequency - 18 departures (direct service)

Fare - \$9.25/ride

Farebox Recovery - 68% (system-wide, 2015)

**Owner:** MBTA owns two boats and contracts with BHC; Operators own additional boats in service

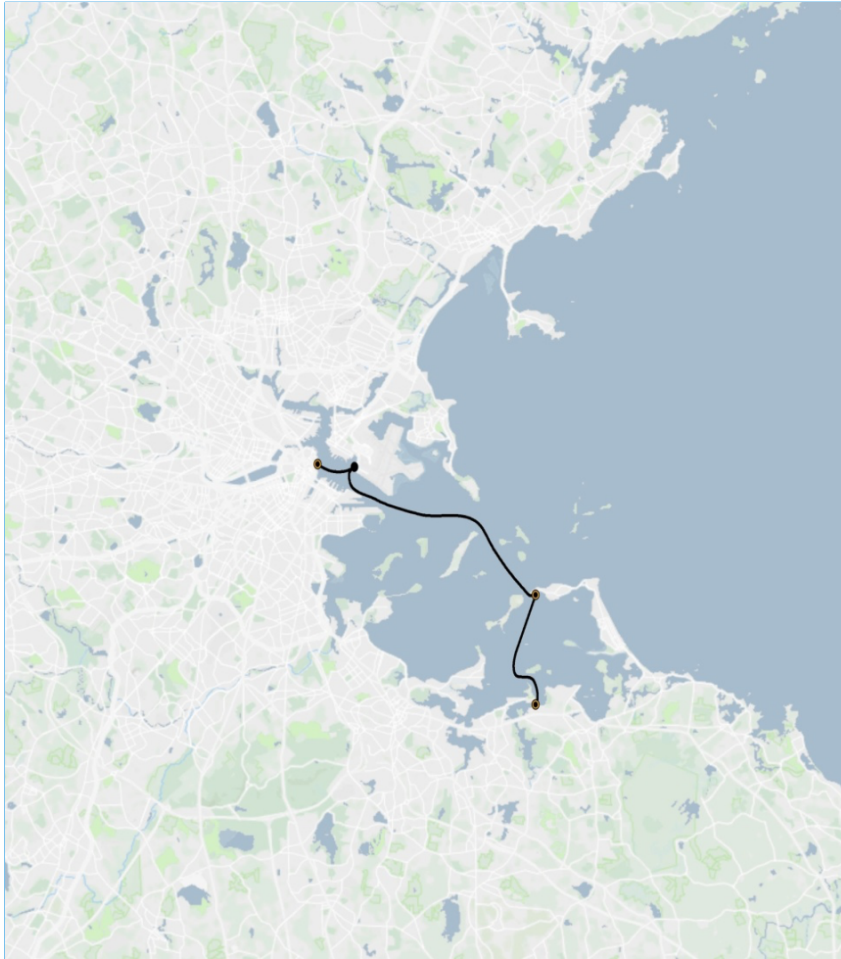
**Operator:** Boston Harbor Cruises

**Funding:** MBTA



# Hingham to Hull to Logan to Boston

**MBTA Service**



**Docks:** Long Wharf North, Logan Airport, Pemberton Point, Hewitt's Cove (+ Grape)

## **Daily Service**

- Hingham: 15 arrivals and departures
- Hull: 9 departures, 15 arrivals
- Logan: 14 landings

Fare - \$9.25/ride

Farebox Recovery - 68% (system-wide, 2015)

**Owner:** MBTA contracts with BHC; MBTA owns two boats

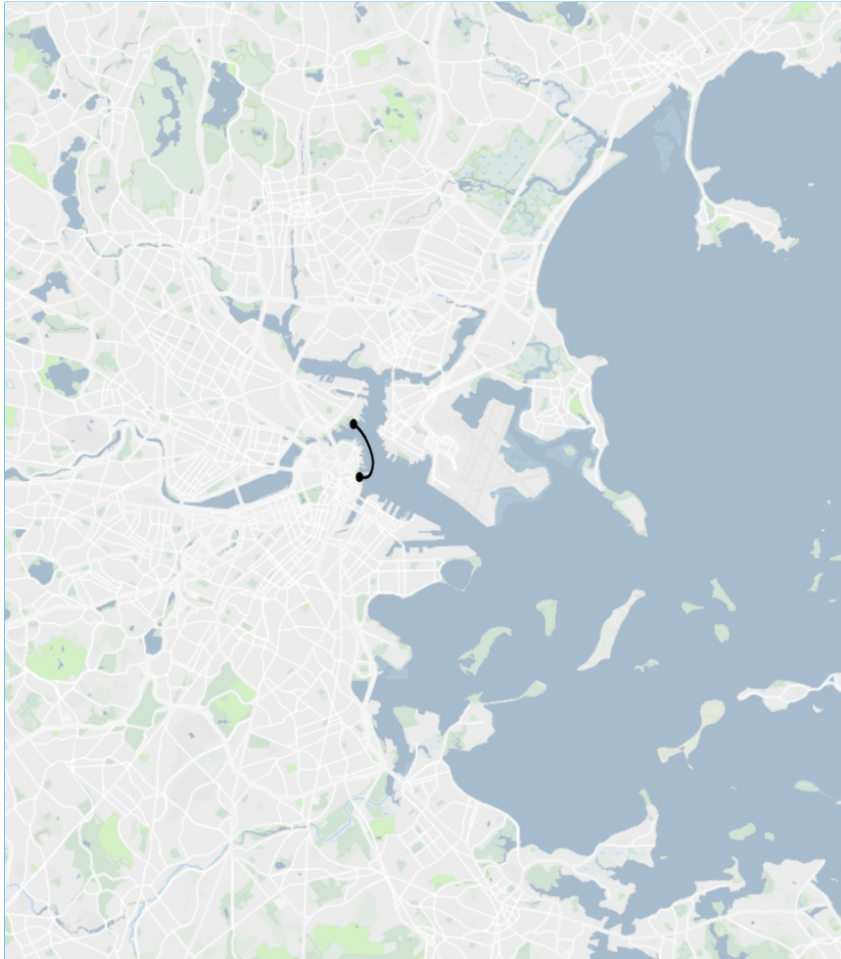
**Operator:** Boston Harbor Cruises

**Funding:** MBTA



# Long Wharf to Charlestown

**MBTA Service**



**Docks:** Long Wharf South to Navy Yard (Pier 4)

## **Daily Service**

Frequency - 39 daily weekday roundtrips

Fare - \$3.50/ride

Farebox Recovery - 68% (system-wide, 2015)

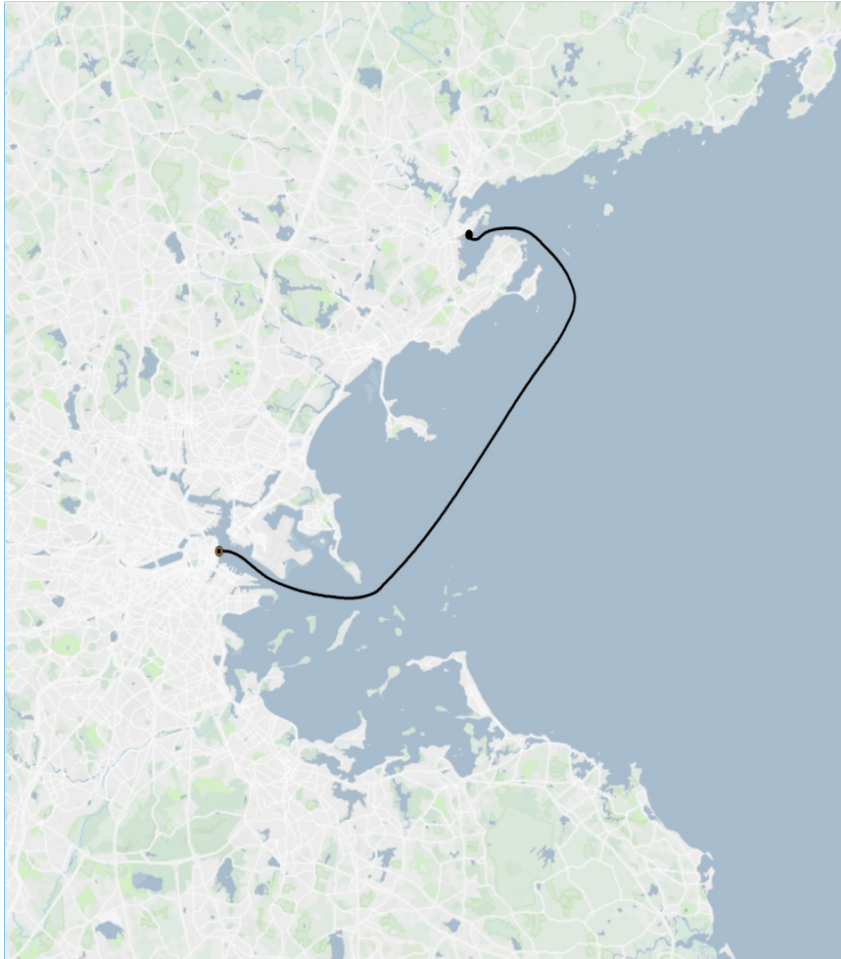
**Owner:** MBTA contracts with BHC; MBTA owns two boats

**Operator:** Boston Harbor Cruises

**Funding:** MBTA



# Salem to Boston



**Docks:** Salem Ferry Terminal to Long Wharf

**Daily Service (Seasonal)**

Frequency - 5 trips/day

Fare - \$25/ride (\$8 for commuter boat)

Farebox Recovery - (To be determined)

**Owner:** Salem owns the boat and contracts with BHC for operations

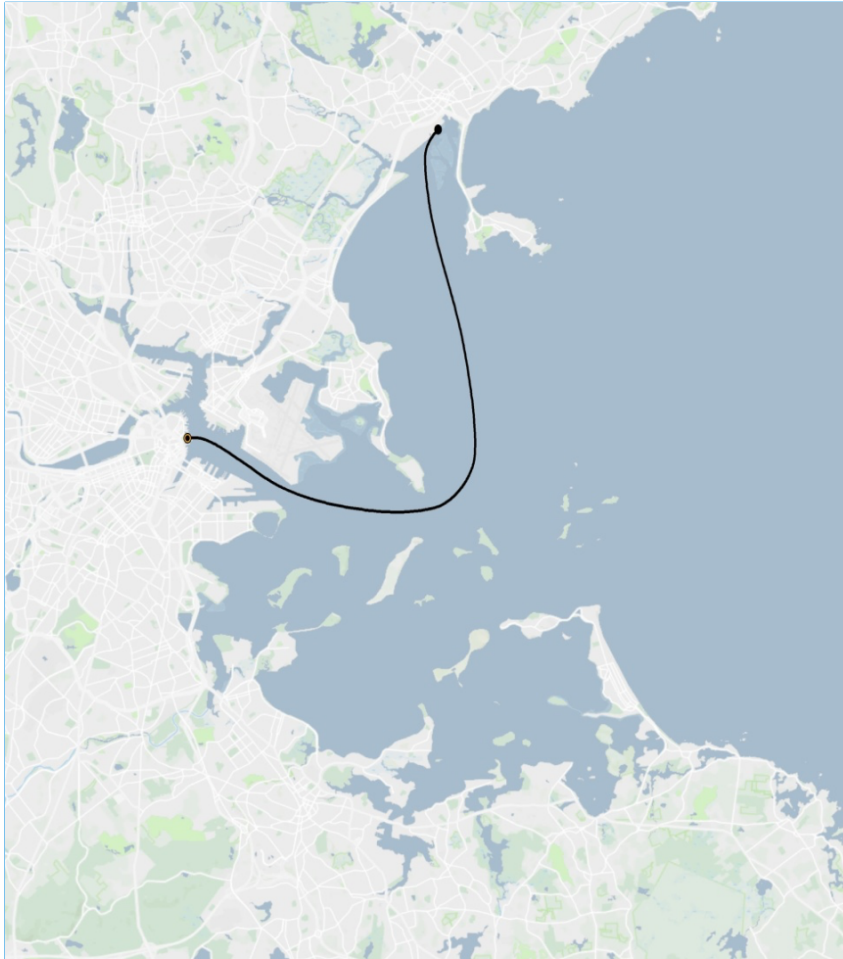
**Operator:** Boston Harbor Cruises

**Funding:** Salem and farebox





# Lynn to Boston



**Docks:** Blossom Street Pier to Long Wharf

**Daily Service (Short term mitigation)**

Frequency - 1 trip/day

Fare - \$7

Farebox Recovery - (To be determined)

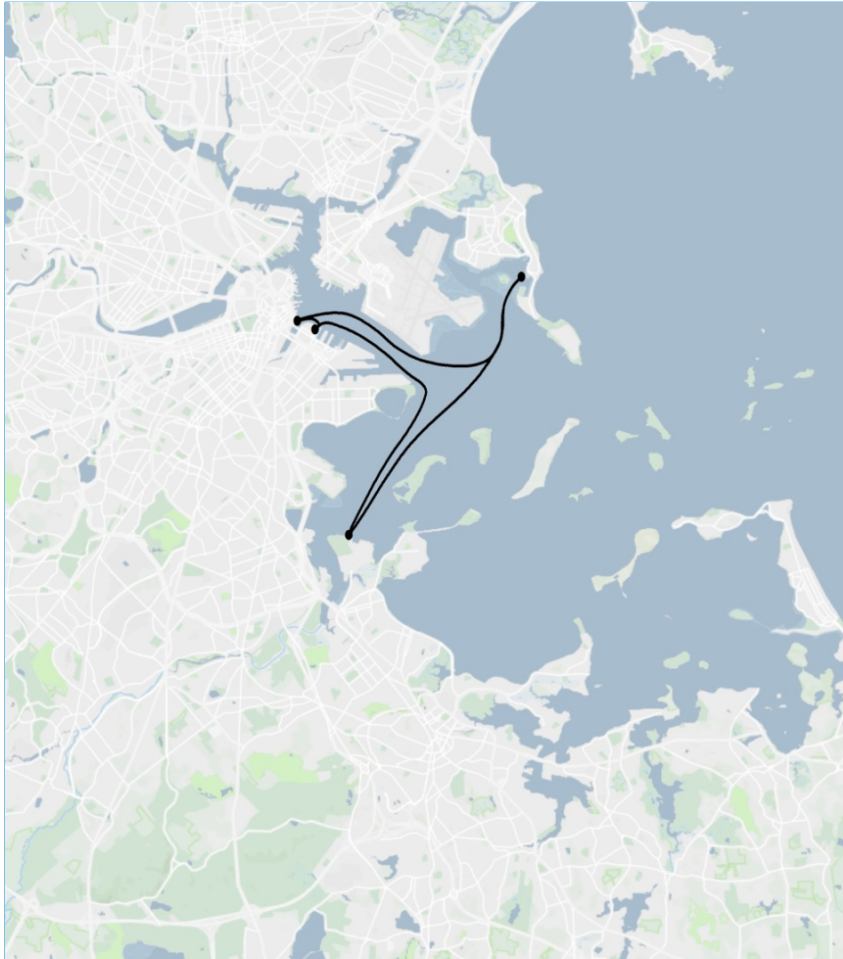
**Owner:** BHC owns the boat

**Operator:** Boston Harbor Cruises

**Funding:** MassDOT and City of Lynn



# Winthrop to Quincy to Boston



**Docks:** Winthrop Ferry Dock, Marina Bay/Squantum Point, Fan Pier, Rowes Wharf

**Daily Service (Seasonal)**

Frequency - 6 to 8 trips/day

Fare - \$8.50

Farebox Recovery - (To be determined)

**Owner/Operator:** Town of Winthrop owns and operates the boat

**Funding:** Town of Winthrop and farebox with temporary MBTA support



# Boston to Provincetown



**Docks:** World Trade Center West, Central Wharf, and MacMillan Pier

**Daily Service (Seasonal)**

Frequency - 1 to 4 trips/day/operator

Fare - \$59

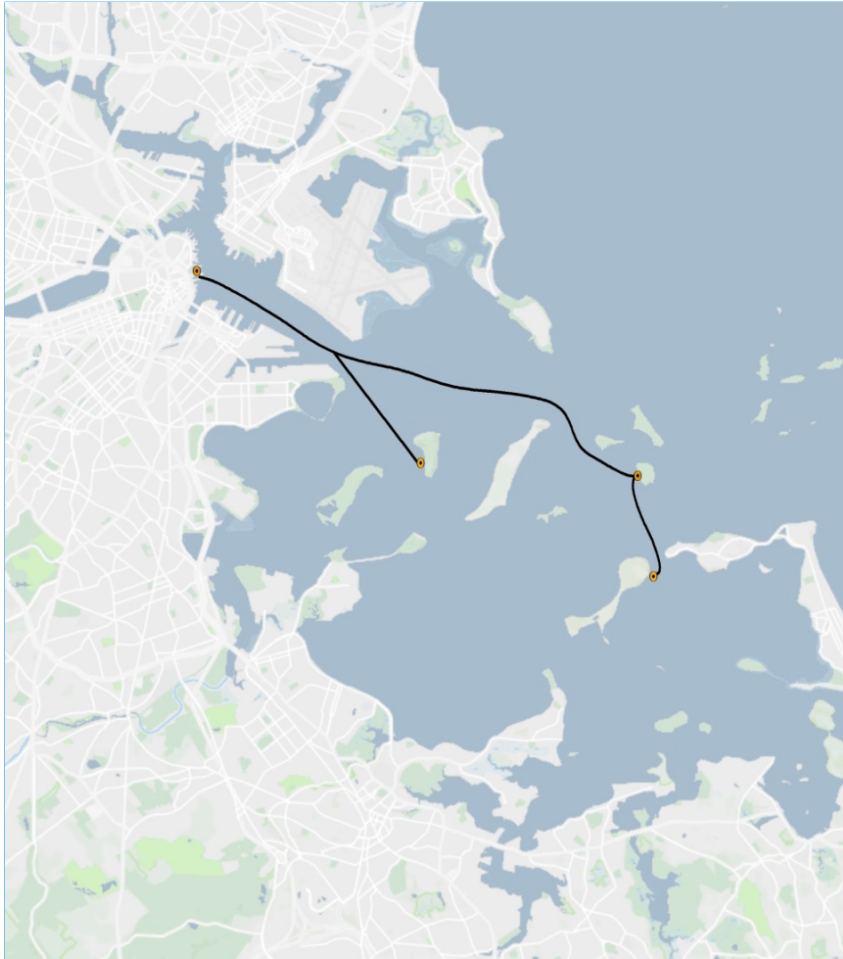
Farebox Recovery - 100%

**Owner/Operator:** Boston Harbor Cruises and Bay State Cruise Company own and operate boats

**Funding:** Farebox with market rate ticket pricing



# Boston to Georges, Spectacle, Peddocks (+ Inter-Island)



**Docks:** Long Wharf North

**Daily Service (Seasonal)**

- Georges: 3 to 7 departures to the island
- Spectacle: 3 to 6 departures to the island
- Peddocks: 2 direct trips to the island

Fare - \$17

Farebox Recovery - (To be determined)

**Owner:** BHN contract to BHC

**Operator:** Boston Harbor Cruises

**Funding:** Farebox



# Hingham and Hull to Five Islands



**Docks:** Hewitt's Cove, Pemberton Point

**Daily Service (Seasonal)**

- Grape: 5 landings/day (Wed. to Sun. only)
- Peddocks: 6 landings/day
- Georges: 7 landings/day
- Lovells: 4 landings/day
- Bumpkin: 3 landings/day (Wed. to Sun. only)

Fare - \$17

Farebox Recovery - (To be determined)

**Owner:** BHN contracts with BHC

**Operator:** Boston Harbor Cruises

**Funding:** Farebox



# Boston to Thompson Island



**Docks:** EDIC/Marine Industrial Park

**Daily Service (Seasonal)**

Frequency - 3 weekend departures to the island

Fare - \$17

Farebox Recovery - (To be determined)

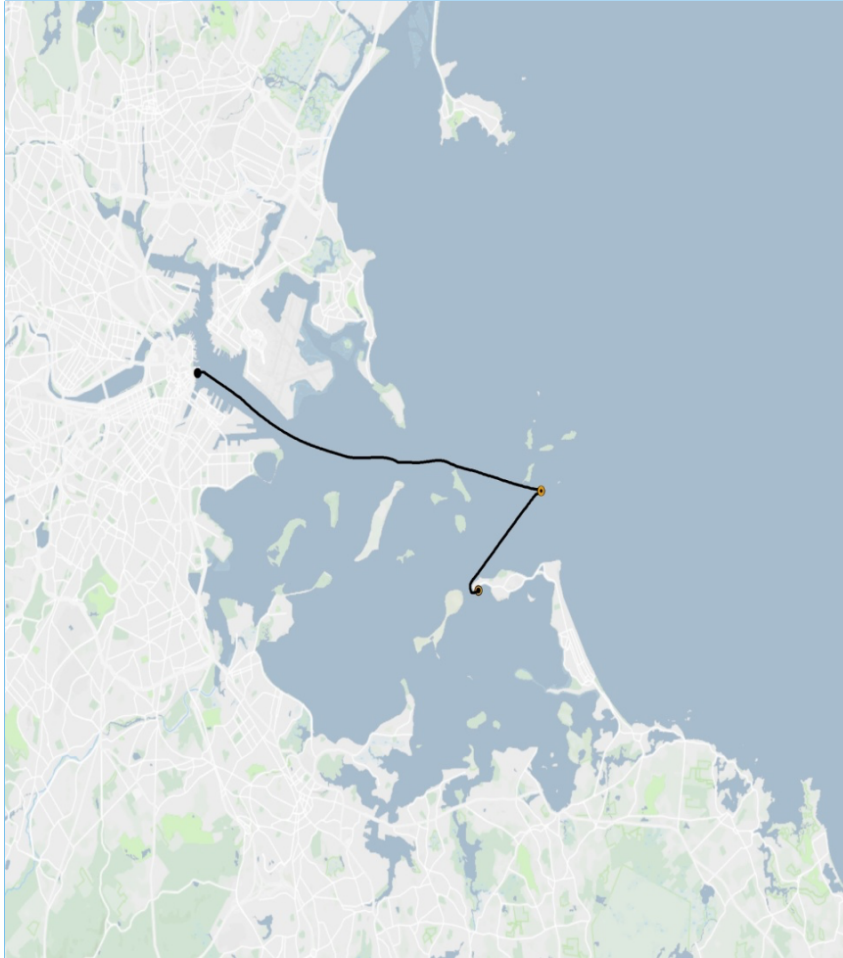
**Owner/Operator:** Thompson Island Outward

Bound owns and operates the boat

**Funding:** Thompson Island and farebox



# Boston and Hull to Boston Light



**Docks:** Central Wharf and Pemberton Point

**Daily Service (Seasonal)**

- 2 departures per day to Little Brewster from Boston on Friday, Saturday, and Sunday
  - 3 departures from Hull two days each summer
- Fare - \$30 (\$41 if climbing the light house)  
Farebox Recovery - (To be determined)

**Owner:** BHN contracts with UMass Marine Operations

**Operator:** UMass Marine Operations

**Funding:** Farebox



# Service Delivery Model



## Public/Private Partnership

Contract Relationship



## Public Operator

Organization, staffing, and management with marine expertise



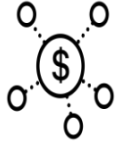
## Private Operator

Economic Feasibility

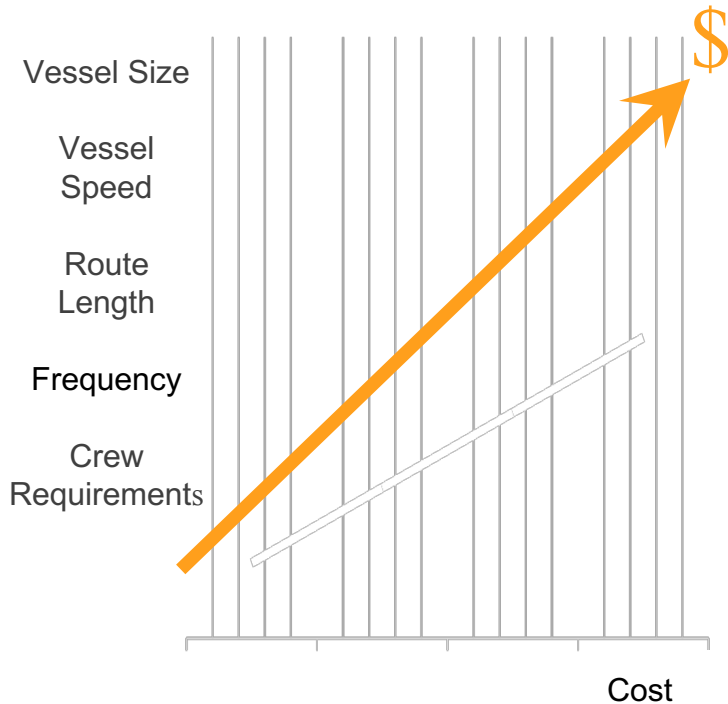




# Sustainable Funding



## Understanding Costs



## Sustainable Funding

- Operating Revenue
  - Farebox Recovery
  - Parking or other user fees
- Ancillary Revenues
  - Advertising/Concessions
- Public Subsidy
  - Local General fund
  - Dedicated Tax (sales, property, parking, etc)
  - Transportation District
- Public/Private Partnerships
- Private Funding



# Performance Measures



## Passenger Performance Measures

- Safe
- Reliable
- On-Time
- Cost Effective
- Experience or Satisfaction

## Organizational Performance Measures

- Number of passengers carried
- Meeting financial goals



# New Vessel Technologies



## Environmentally Responsible Design

- Vessel Operating Goals
  - Minimize energy use
  - Minimize air emissions and discharge
- Vessel Construction Goals
  - Minimize drag
  - Maximize use of recycled and renewable material
  - Minimize waste and scrap
- New Tech
  - Design software
  - Diesel /Electric
  - Hydrogen Fuel Cell





# Break-out Session 2: Your Criteria for Prioritizing Sites and Routes

# Past Board Presentations





# Water Transportation Advisory Council

March 9<sup>th</sup>, 2017



# Key facts and details

- Water Transportation Advisory Council was created by statute in 2016.
- Chaired by the Secretary of Transportation
  - staffed by MassDOT and the MBTA
- Membership is proscribed in statute, though it may be expanded. Currently includes:
  - Co-Chairs of the Joint Committee on Transportation.
  - Several Mayors and Town Managers from coastal communities
  - Massport, Seaport Economic Council...
  - Boston Harbor Cruises & Steam Ship Authority
  - Boston Harbor Now
- Authority: Advisory to the Secretary of Transportation



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# Water Transportation Advisory Council Overview

On July 31<sup>st</sup>, 2016 the Legislature enacted HB 4450, creating the Water Transportation Advisory Council

- Create a vision for a comprehensive system of water transportation services to serve the commonwealth's ferry passengers, including commuters and tourists
- Identify an overall vision for the ferry system to enable the transportation of people, goods and vehicles by water
- Develop a series of goals and objectives to support the overall vision
- Identify implementable policies and improvements including, but not limited to, investment of public funds to support operating and capital expenses for existing and new ferry services
- Support the state agencies and independent authorities responsible for planning, designing, constructing, operating, funding and maintaining the ferry transportation infrastructure facilities
- Meet at least quarterly and report on activities every 6 months



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# Key Element of Work Plan

- Review and give feedback BostonHarborNow Sustainable Water Transportation Study\*
- Business cases presentations for current and past services
- Infrastructure/Systems tours
- Geographic Working Groups to explore connectivity and coordination options. Including:
  - Land side connectivity
    - Walking, biking, & transit
  - Parking best practice
  - Economic development & supportive land use

\*more information on next slide



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# Summary: “A Comprehensive and Integrated Water Transportation System Study for Boston Harbor”

- Boston Harbor Now to solicit and manage consultants on behalf of principal clients MassDOT and Massport plus a consortium of public and private funders
- Goals 1) Compile baseline site profiles for planning of passenger ferry services  
2) Comprehensive business plans for up to three **financially sustainable services** that can be launched in 1-5 years
- RFP to be issued in March of 2017 and 8-10 months to complete work
- Geography is Gloucester to Provincetown, inner and outer harbor up to dams
- Also includes National Park Service funded *Transportation Vision, Strategy and Action Plan for the Boston Harbor Islands National and State Park*



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# Study: Project Deliverables

- Criteria defined and consistent data compiled for +/- 25 potential passenger ferry sites harbor wide. Can serve as a baseline for ongoing evaluation and planning if maintained and updated
- Clear and transparent methodology for evaluating which sites can support financially sustainable services and in what time frame
- Business plans for up to three new or expanded and financially sustainable services that could be launched in next 1-5 years



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# Key MassDOT & MBTA Staff

Astrid Glynn – MassDOT Rail & Transit Administer

John Ray – Assistant General Manager Commuter Rail Services

Mimi Lannin – Deputy Director of Finance Rail & Water Transportation

## QUESTIONS?



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# Appendix



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# Water Transportation Advisory Council Members

- Secretary of Transportation (Chair)
- General Manager of the MBTA
- House Chair on Joint Committee on Transportation
- Senate Chair on Joint Committee on Transportation
- President of Boston Harbor Now
- Officer of Boston Harbor Now
- Executive Director of Seaport Economic Council
- General Manager of Woods Hole, Martha's Vineyard and Nantucket Steamship Authority
- CEO of Massport
- Representatives of private ferry operations
- Mayors of Boston, Lynn, New Bedford, Quincy and Salem
- Town Managers of Hingham, Hull, Provincetown and Winthrop



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# Water Transportation Advisory Council Members

- Stephanie Pollack – Secretary of Transportation and MassDOT CEO
- Brian Shortsleeve – MBTA Acting General Manager
- Senator Thomas McGee – Senate Chair on Joint Committee on Transportation
- Representative William Strauss – House Chair on Joint Committee on Transportation
- Cathy Abbott – Boston Harbor Now
- Philip Griffiths – Boston Harbor Now
- Caroline Kirk – Seaport Economic Council
- Ellen Cebula - Seaport Economic Council
- Wayne Lamson – Steamship Authority
- Tom Glynn – MassPort
- Alison Nolan – Boston Harbor Cruises
- Martin Walsh - City of Boston
- Judith Kennedy – City of Lynn
- Jon Mitchell – City of New Bedford,
- Thomas Koch City of Quincy
- Kim Driscoll – City of Salem;
- Ted Alexiades – Town of Hingham
- Philip Lemnios – Town of Hull
- David Panagore – Town of Provincetown
- James McKenna – Town of Winthrop
- Carlo DeMaria - Everett
- James Folk - Convention Center Authority



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# Calendar (DRAFT)

**February 23**

**10am to 12pm**

- Work Plan/Schedule Adoption
- Winthrop Case Study
- Final update on Boston Harbor Now Study
- Set Working Groups

**May 25**

**10am to 2pm**

- Boston Harbor Infrastructure & Ferry Locations Tour and meeting
- Quincy Case Study

**September 14**

**10am to 12pm**

- Lynn/Salem Case Study
- Understanding the work of the SEC – Presentation by Ellen Cebula
- Parking best practices

**December 15**

**10am to 12pm**

- TBD



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Are you on board?

## A Comprehensive and Integrated Water Transportation System Study for Boston Harbor

- Criteria defined and consistent data compiled for +/- 25 potential passenger ferry sites harbor wide. Can serve as a baseline for ongoing evaluation and planning if maintained and updated
- Clear and transparent methodology for evaluating which sites can support financially sustainable services and in what time frame
- Business plans for up to three new or expanded and financially sustainable services that could be launched in next 1-5 years
- From NPS study a framework for next Harbor Islands ferry contract (2019)



Are you on board?

# A Comprehensive and Integrated Water Transportation System Study for Boston Harbor

## Study Approach

- Establish a comprehensive list of potential passenger ferry sites harbor-wide, anticipate +/- 25 sites
- Compile site profiles, including potential ridership demand, infrastructure, local development/zoning/planning activities and intermodal connectivity
- Evaluate each site for likelihood of supporting financially responsible service in 1-5 years and 5-10 years
- Select +/- 10 promising sites for ridership demand modelling
- Select +/-3 sites or networks for detailed market and feasibility analysis
- Develop comprehensive business plan and financial sustainability analysis



Are you on board?

# A Comprehensive and Integrated Water Transportation System Study for Boston Harbor

## **Project Implementation Schedule**

- January/February 2017 - Boston Harbor Now and, MassDOT finalizing consultant scope of services and confirming funding commitments
- March 2017 – anticipated release of RFP
- Anticipate 8-10 months for work once contract awarded