

Boston Harbor Islands National Recreation Area Ferry Service and Operations Study: Final Summary Report



Source: U.S. DOT Volpe Center



May 2026

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List of Acronyms

ABAAS	Architectural Barriers Act Accessibility Standards
ADA	Americans with Disabilities Act
ADAM	Adams National Historical Park
BCE	Bourne Consulting Engineering
BHCC	Boston Harbor City Cruises
BHI	Boston Harbor Islands
BHN	Boston Harbor Now
BOHA	Boston Harbor Islands National Recreation Area
BOST	Boston National Historical Park
BPDA	Boston Planning and Development Agency
BTS	Bureau of Transportation Statistics
CNY	Charlestown Navy Yard
CSIOBS	Cathleen Stone Island Outward Bound School
DCR	Massachusetts Department of Conservation and Recreation
EPA	Environmental Protection Agency
FBHI	Friends of the Boston Harbor Islands
FBP	Ferry Boat Program
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FLTP	Federal Lands Transportation Program
FTA	Federal Transit Administration
FY	Fiscal year
GEI	GEI Consultants, Inc.
GUIS	Gulf Islands National Seashore
ISRO	Isle Royale National Park
LRTP	Long Range Transportation Plan
LW	Long Wharf
MARAD	Maritime Administration

MassDOT	Massachusetts Department of Transportation
Massport	Massachusetts Port Authority
MBTA	Massachusetts Bay Transportation Authority
MPO	Metropolitan Planning Organization
MWRA	Massachusetts Water Resources Authority
NCFO	National Census of Ferry Operators
NER	Northeast Region
NGO	Non-Governmental Organization
NPS	National Park Service
NRA	National Recreation Area
NSFLTP	Nationally Significant Federal Lands and Tribal Projects
RFP	Request for Proposals
SAMA	Salem Maritime Historic Site
SHPO	State Historic Preservation Office
SHSB	Save the Harbor/Save the Bay
USCG	U.S. Coast Guard
Volpe	US DOT Volpe Center
WASO	Washington Support Office

Report Notes

This report was prepared by the U.S. Department of Transportation John A. Volpe National Transportation Systems Center (Volpe Center). The project team was led by Larissa Ireland and David Koch and supported by Remi Work, Trevor Powell, Jason Sydoriak, Jennifer Shelby, PhD, Daniel Mannheim, and Paige DeBold. Technical oversight was provided by Hoamy Tran and Katie Lamoureux.

This effort was undertaken in fulfillment of the project agreement, Boston Harbor Islands National Recreation Area Ferry Service and Operations Study. The project was funded by the Interagency Agreement between the National Park Service Interior Region 1, North Atlantic-Appalachian Alternative Transportation Program and the Volpe Center (agreement P23PG00213).

Acknowledgments

The authors wish to thank the organizations and individuals who graciously provided their time, knowledge, and guidance in the development of this report, including:

Boston Harbor Islands National Recreation Area

Michael Creasey, Superintendent (former)

Liza Stearns, Deputy Superintendent (former)

Alex Thibadoux, Director of Resource Preservation & Planning

Boston Harbor Now

Jack Murray, Vice President for Partnerships & Operations (former)

Alankrita Narang, Chief Operating Officer

Kathy Abbot, Chief Executive Officer

Massachusetts Department of Conservation and Recreation

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Belle Procaccini, Director of Operations

Boston Harbor City Cruises

Bob Lawler, General Manager and Regional Vice President

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1 Introduction

1.1 Project Background

This ferry service and operations study is intended to evaluate current conditions and explore opportunities to improve the overall visitor experience of the Boston Harbor Islands ferry service. This analysis covers Phase I of a multi-phase effort that aims to examine and enhance the overall ferry boat operations. The study is being performed by the U.S. DOT Volpe Center (Volpe) for the National Park Service (NPS) Boston Harbor Islands (BOHA) National Recreation Area (NRA), Boston National Historical Park (BOST), and Boston Harbor Now (BHN) which manages the park's ferry system. This study aims to identify operational alternatives that optimize the ferry system, increase visitation, and support equitable public access to BOHA-BOST. The findings from this study will inform a future infrastructure needs assessment that will explore design considerations for potential acquisition of different vessel types to support operational needs. This study is intended to inform future planning and decision-making. Public input and additional analysis during Phase 2 of the BOHA Ferry Study will help inform any future decisions.

1.2 Report Purpose

This report provides an overview of previous studies and planning documents, the Boston Harbor Islands (BHI) partnership and operational management structure, and current ferry operations for BOHA-BOST. It summarizes feedback from stakeholder conversations, identifies and documents challenges and opportunities, and presents baseline recommendations related to the BOHA ferry system. It provides recommendations for operational alternatives to increase visitation to the islands, contract mechanism options, and vessel and dock replacement options to support the recommended alternatives. Additionally, it includes an economic analysis of fares for ferry operations over the last ten years as well as the proposed alternatives and identifies next steps for a future infrastructure needs assessment.

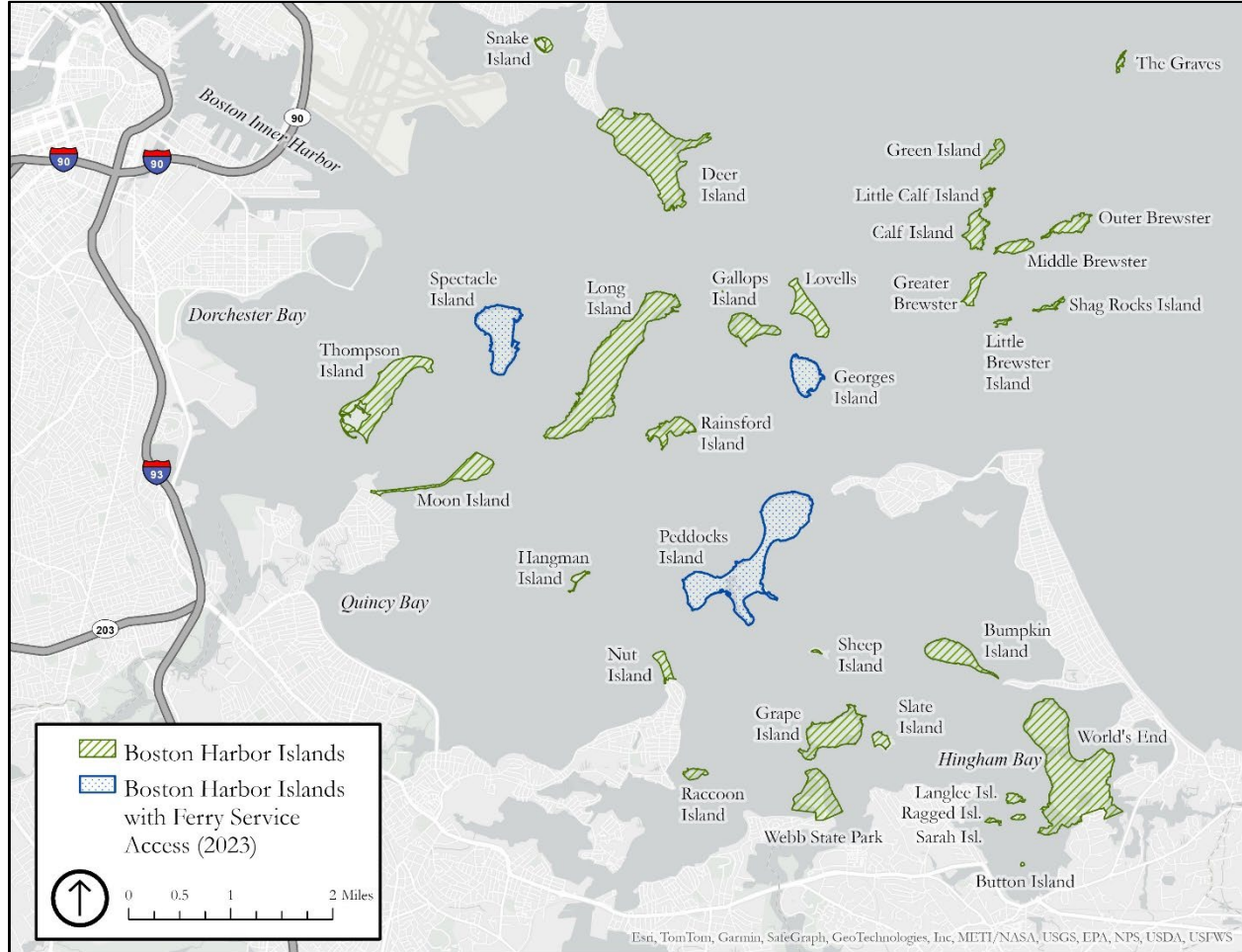
The information contained in this report was developed in coordination with the study planning team, which includes the NPS Interior Region 1 Office, NPS Boston Office, Boston Harbor Islands Partnership, and other key project partners.

1.3 Study Area Overview

Established on November 12, 1996, the Boston Harbor Islands National and State Park consists of 34 islands and peninsulas that are centrally located within 10 miles of the Greater Boston metropolitan area (Figure 1). The islands are glacial drumlins that geographically extend through the Inner Harbor, Outer Harbor, and Massachusetts Bay. In addition to the rich ecological history of the Boston Harbor Islands, the islands have remained culturally significant in the State of Massachusetts following its military role in the Civil War. Boston Harbor Islands is home to three National Historic Sites, including Boston Light, Fort Warren, and Long Wharf (LW). Additionally, many Indigenous Nations have ties to the islands, such as the Massachusett Tribe at Ponkapoag, the Mashpee Wampanoag Tribe, Wampanoag Tribe of Gay Head (Aquinnah), the Nipmuc Nation, and the Narragansett Indian Tribe.

The seven islands within Boston Harbor Islands that have been traditionally accessed by public ferries include Spectacle, Georges, Peddocks, Lovells, Bumpkin, Gallops, Grape, and Little Brewster Islands; only the first three of these currently have ferry service and are the primary focus of this study. Ferry service to Little Brewster Island, which was primarily used to access the Boston Light, the oldest operating lighthouse in the country, was suspended in 2019. Additionally, at the time of this report, Little Brewster Island, currently owned by the Coast Guard, is being considered for transfer to the NPS. The Boston Harbor Islands Park boundaries also include several key Gateway sites (Long Wharf, Charlestown Navy Yard (CNY), Squantum Point, and EDIC Pier) and four islands that can be accessed by car.

Figure 1: Study area map denoting which of the Boston Harbor Islands are accessible by ferry as of 2023.



2 Vision

The BOHA-BOST partners developed a set of guiding principles and evaluation criteria to direct the work of the project study team. This project aims to enhance service delivery, access, and the visitor experience of the ferry system. The evaluation criteria will help test proposed recommendations and improved outcomes.

2.1 Guiding Principles

1. Boston Harbor Islands National and State Park Area is a national treasure replete with unique and abundant ecological, recreational, historic, cultural and archaeological resources.
2. The Islands serve as a natural barrier and protection from flooding and storm surge for Boston's shoreline.
3. The Boston Harbor, its waterfront, and islands are open, accessible and inclusive. They are a dynamic ecosystem of connected open spaces that attract visitors, tourists, and residents from all parts of the city and beyond.
4. Spectacle and Georges Islands provide exemplary programs and high-quality visitor amenities serving as a catalyst for attracting greater visitation and demonstrating the natural, cultural and recreational value provided by the Boston Harbor Islands and the Park.
5. Water transportation to the harbor islands is seamlessly integrated with Gateways and transportation hubs, including: Charlestown Navy Yard (CNY), Long Wharf (LW), and Hingham. The service will promote waterfront activity and serve as a connector to experiences in the harbor and on the islands with the goal of supporting expansion of the system to other islands and gateway municipalities.
6. An enhanced multi-modal transportation system that includes more water transportation options makes Gateways a more integrated part of Boston's tourism ecosystem.
7. Harbor Island ferries are more than a means of transportation, they are an experience in themselves and a vehicle for enhancing visitors' understanding of the City, its story, and its historic connection to the water and environs.
8. The Harbor Islands transportation network of the future will be reflective of efficient energy goals and work in harmony with the harbor islands ecosystem.

2.2 Evaluation Criteria

1. The water transportation system is reflective of visitor's preferences and data trends in developing schedules, assessing island carrying capacity, and staffing capacity.
2. Expanded opportunities to experience the islands are enhanced through more transportation options through affordability, frequency, and points of origin.
3. Ferry fares
 - a. Fares are affordable, enabling diverse access by visitors to the park.
 - b. The ferry operation is financially sustainable. The fare structure drives increased ridership supporting increased revenues.
 - c. Optimal fare pricing and service delivery is consistent with elasticity of demand to enhance visitation and long-term operational stability
4. Ferries provide a high-quality visitor experience through reliability, visitor amenities, comfort, and safety.
5. Tourism demand for diverse island experiences can support an expanded operating season.
6. Transportation options support federal and state climate and Americans with Disabilities Act (ADA) related benchmarks for access and emissions

3 Summary of Relevant Studies and Planning Documents

The following sub-sections summarize background information from previous studies and reports on transportation needs and operations, and visitor experience at the Boston Harbor Islands and the Greater Boston waterfront area. The information below provides additional context to the study area, describing planning priorities and previously identified recommendations that frame the considerations and strategies for this study. Relevant studies and planning documents include:

- Boston Harbor NPS Sites Alternative Transportation Systems Evaluation Report (2001)
- Planning Through Partnerships - Alternative Transportation at Boston Harbor Islands National Park Area (2004)
- Boston Harbor Islands Partnership General Management Plan (2005)
- South Boston Waterfront Sustainable Transportation Plan (2015)
- Boston Harbor Islands Ferry Use and Visitation Trends Analysis (2017)
- Boston Harbor Islands Boat Dock Inspection and Design Recommendations for Repair and Replacement (2017)
- Comprehensive Boston Harbor Water Transportation Study and Business Plans: Best Practices (2018)
- Charlestown Navy Yard Visitor Experience Plan Final Report (2018)
- Boston Harbor Islands Dock and Piers Conditions Assessments (2023)
- GEI Presentation of Boston Harbor Islands Assessment Report (2023)
- Boston Region Metropolitan Planning Organization (MPO) Long Range Transportation Plan (LRTP) Destination 2050 (2023)

Figure 2: Boston Harbor at Long Wharf.



Source: U.S. DOT Volpe Center

3.1 *Boston Harbor NPS Sites Alternative Transportation Systems Evaluation Report (2001)*

The [Boston Harbor NPS Sites Alternative Transportation Systems Evaluation Report](#) is a comprehensive study examining transportation needs of four units in Boston Harbor Islands, Boston Harbor Islands

National Recreation Area (BOHA), Boston National Historical Park (BOST), Salem Maritime Historic Site (SAMA), and Adams National Historical Park (ADAM). The study analyzed existing conditions related to park facilities, visitor circulation, access and inter-modal connections, water transportation service, dock and pier facilities, and information services. It identified transportation needs and alternative transportation route options to improve access within Boston Harbor. The research aimed to support long-term management and operations of the ferry system within the Boston Harbor Islands and surrounding NPS sites. This report outlined the following recommendations to improve alternative transportation services and increase visitation to Boston Harbor Islands:

- Expanding ferry service to more departure points, especially to gateways with connections to mainland transportation facilities,
- More frequent service and improved schedule coordination,
- Enhanced dock facilities and establishment of visitor centers on islands,
- ADA compliance on boats and docks, and
- Improved information on the islands and ferry system, including signage, advertising, tie-in with Freedom Trail promotion, and coordination/joint promotion with the Massachusetts Bay Transportation Authority (MBTA).

The report recommended specific routes, proposed short-, mid-, and long-term implementation phases and operating models for each, estimated visitation for low-, medium-, and high-growth scenarios, and a marketing campaign.

3.2 Planning Through Partnerships - Alternative Transportation at Boston Harbor Islands National Park Area (2004)

The [Planning Through Partnerships - Alternative Transportation at Boston Harbor Islands National Park Area](#) report is a case study on the successes of partnerships in planning at Boston Harbor Islands. It outlines the process partners took to develop a transportation network to the islands, including identifying gateway sites and ferry routes, and improving dock infrastructure to be ADA accessible, and summarizes results from the successful partnerships. It identifies the following lessons learned:

- Collaboration is crucial and will provide long-term benefits
- Work with transportation experts who are knowledgeable, credible, and can bring diverse skills to the planning process
- Develop a framework for managing the planning process in an efficient and participatory way
- Transportation plans should be comprehensive, forward-looking, and phased
- Park-based transportation planning should complement transportation planning underway outside of the park

3.3 Boston Harbor Islands Partnership General Management Plan (2005)

The NPS [Boston Harbor Islands: A National Park Area General Management Plan](#) is a policy-level document, produced following the general Park Service plan mandate and the 1996 legislation that established Boston Harbor Islands National and State Park. The plan includes a financing and economic agenda, policies and plans regarding public outdoor recreation, policies for conserving the islands' values and resources, and policies for preserving sacred burial grounds. It describes the existing conditions of the islands in 2000. The park's mission is described as "preserving and protecting the drumlin island system and its associated natural, cultural, and historical resources; to tell the islands' individual stories and enhance public understanding and appreciation of the island system as a whole, including the history of American Indian use and involvement; and to provide public access, where appropriate, to the islands and surrounding waters for the education, enjoyment, and scientific and scholarly research of this and future generations." The plan's environmental analysis eliminated unrestricted, full-time visitation to the

islands, the creation of new recreational facilities that did not have an essential relationship to the setting and park mission, and private residential occupancy.

Throughout the management plan, a mainland gateway is defined as a ferry departure point with attendant information, orientation, and services for park visitors. The plan determined that all official gateways must meet several criteria to ensure visitor access including:

- mainland gateways must be located in areas open to the public without charge;
- mainland gateways must be located near public, multi-modal transit systems including highways, bikeways, and commuter boats;
- mainland gateways must have piers that accommodate regularly scheduled island vessels that meet ADA requirements, long-term docking facilities, a park identity sign package, and visitor amenities.

More active locations must have additional visitor amenities including restrooms, drinking water, visitor contact stations, sales, and staff facilities. Park water transportation must be pleasurable, educational, comfortable, safe, and reliable. The Partnership is responsible for setting and enforcing performance standards of dock facilities, ferries, and water shuttles.

3.4 South Boston Waterfront Sustainable Transportation Plan (2015)

The Boston Planning and Development Agency's (BPDA) [South Boston Waterfront Sustainable Transportation Plan](#) (2015) outlines a long-term vision for strategic transportation system improvements for the waterfront area located southeast of Downtown Boston and across the Inner Harbor from East Boston. These improvements include short-term actions to address existing issues related to mobility, capacity constraints, transit, bicycle and pedestrian needs, and operational enhancements. It identifies water transportation opportunities and key regional access recommendations such as providing new transit connections to the waterfront, including ferry services.

3.5 Boston Harbor Islands Ferry Use and Visitation Trends Analysis (2017)

This NPS presentation from 2017 examines actual and forecasted visitation trends between 2013 and 2017. It identifies the largest changes in visitation year-over-year, average daily riders by month, day of week, and by weekend/weekday. It also considers how weather correlated to visitation, mainly finding that weather events caused decreases in ridership. The presentation noted data limitations, including no adjustments made for holiday weekends, and the assumption that ferry operations are constant across years.

3.6 Boston Harbor Islands Boat Dock Inspection and Design Recommendations for Repair and Replacement (2017)

This report was prepared by the NPS Denver Service Center Transportation Division in collaboration with the Massachusetts Department of Conservation and Recreation (DCR) in September 2017. It highlights necessary repairs identified from inspections performed in 2015 by Bourne Consulting Engineering (BCE). BCE's pre-design report (April 2017) outlines recommendations for each island, which were broken into immediate safety and structural integrity concerns to be addressed within one year, one to two-year repairs, two to three-year repairs, and five to 10-year repairs, with a separate emphasis on Architectural Barriers Act Accessibility Standards (ABAAS) and ADA needs. Cost estimate summary tables for each repair group are provided as well as individual repair assessment plans and inspection reports with photographs and repair drawings.

3.7 *Comprehensive Boston Harbor Water Transportation Study and Business Plans: Best Practices (2018)*

The [Water Transportation Strategy for the Boston Harbor Islands and State Park: Best Practices](#) report coordinated by BHN reviews existing ferry systems in state and national parks and describes their applicability to the Boston Harbor Islands Park Strategy to inform a Request for Proposals (RFP) for ferry service beginning in 2019. It outlines challenges and considerations for RFP development and contract awarding, summarizes existing conditions, and identifies best practices for recreational ferry service. It discusses overall lessons learned with a focus on delivery models and user experience and describes best practices from concession agreements for passenger-only ferry operations, such as effective service delivery models, route configuration, system integration with other transportation modes, efficient operations, measurable performance standards, and environmental practices. Additionally, it summarizes the team's stakeholder outreach and engagement process, estimated demand based on previous data and engagement, valuation of service, and funding opportunities to support ferry service.

3.8 *Charlestown Navy Yard Visitor Experience Plan Final Report (2018)*

The [Charlestown Navy Yard Visitor Experience Plan Final Report](#) was produced by Sasaki & Lord Cultural Resources in 2018. The project was a collaborative effort between CNY partners, BOST, the U.S. Navy, the USS Constitution Museum, community stakeholder organizations, and the broader public. It identifies strategic investments that improve visitor experience at CNY, both within the NPS BOST boundary and the CNY as a whole. The project team engaged with partners, stakeholder organizations, and the public to understand existing challenges and solicit ideas for the future of the area. The team identified three concepts to guide the plan:

- invite visitors to explore surprising stories embedded in the landscape;
- experience a place that is attuned to the needs of diverse communities; and
- embark on journeys to Boston Harbor and beyond.

The report identifies near- and long-term projects to advance these concepts.

3.9 *Boston Harbor Islands Dock and Piers Conditions Assessments (2023)*

The Boston Harbor Islands Docks and Piers Conditions Assessment Report was produced by GEI Consultants, Inc. (GEI), in 2023. The report is a dock evaluation at eight islands and CNY Pier 1 as follow up to the full facility inspections of the seven island sites in the 2017 “Boston Harbor Islands Boat Dock Inspection and Design Recommendations for Repair and Replacement,” summarized above. It provides baseline information to facilitate short- and long-term planning for reinvestment in the park's marine infrastructure to be safe and sustainable and ensure the rehabilitation and replacement of aging and deteriorating dock and pier structures while reducing deferred maintenance costs. The report documents the decision-making process of repair prioritization based on inspections performed in 2017 and 2023 and subsequent engineering recommendations. Additionally, it provides guidance for NPS and DCR to establish budgeting requirements, develop timelines, and procure funding for projects based on the repair prioritization. Docks and piers were evaluated at the following sites:

- Bumpkin Island
- Gallops Island
- Georges Island
- Grape Island
- Little Brewster Island
- Lovells Island
- Peddocks Island

- Spectacle Island
- Pier 1 (CNY)

3.10 GEI Presentation of Assessment Report (2023)

GEI Consultants' presentation from October 2023 reports on their 2022 Boston Harbor Islands Assessment. The condition inspection was performed at Georges, Peddocks, Spectacle, in addition to four other harbor islands. Goals from the analysis included identifying changes to island facilities since 2017, immediate infrastructure safety concerns, operation constraints, and needs to meet ADA access, along with evaluating the impacts of sea level rise to the islands and providing recommendations for short-, intermediate-, and long-term infrastructure repairs and investments. The presentation identifies major issues on each island along with cost estimates for repair and improvement recommendations. Key findings include:

- Georges Island's public access areas were overall in satisfactory condition,
- Peddocks Island was overall in satisfactory condition, and
- Spectacle Island had continued to deteriorate since the inspection six years prior.

3.11 Boston Region Metropolitan Planning Organization (MPO) Long Range Transportation Plan (LRTP) Destination 2050 (2023)

[Destination 2050](#) is the Boston Region MPO's LRTP and was most recently updated in February 2023. Destination 2050's investment programs address long-term goals related to complete streets, major infrastructure, intersection improvements, bicycle network and pedestrian connections, community connections, transit transformation, and bikeshare support. Regarding ferry service systems, the report notes that \$6.6 million was awarded to the MBTA in discretionary grant funding for modifications to the Hingham ferry dock in 2022 and 2023. Additionally, the MBTA's Proposed Capital Spending for fiscal year (FY) 2024-2028 includes \$38 million across seven ferry projects in the Boston region.

4 Partnership and Operational Management Structure

Congress established the [Boston Harbor Islands Partnership](#) (herein after referred to as “the Partnership”) as a unique partnership between 11 entities including Federal, state, and local agencies, as well as private and non-profit partners. The Boston Harbor Islands are managed collaboratively by the agencies listed in Table 1. Several members of the Partnership own and manage islands properties, peninsulas, and public spaces along the harbor, while BHN supports the park’s activities through advocacy, fundraising, programming, and planning. The Partnership works to collaborate and coordinate activities throughout the park and in the development and implementation of the Management Plan for their respective properties and the Park as a whole. The Park’s enabling legislation established the Partnership as a Federal operating committee, where the Partnership elects a chairperson and vice-chairperson annually. The Partnership as a whole meets [five times per year](#) to conduct planning, while its Operations/Transportation Subcommittee meets monthly on specific issues and brings recommendations through the planning committee to the Partnership.

Table 1: Names and types of agencies belonging to the Boston Harbor Islands Partnership.

Agency Type	Boston Harbor Islands Partnership Agencies
Federal	National Park Service (NPS) U.S. Coast Guard (USCG)
State	Massachusetts DCR Massachusetts Water Resources Authority (MWRA) Massachusetts Port Authority (Massport)
Municipal	Boston Planning and Development Authority (BPDA) City of Boston
Private/Nonprofit	Boston Harbor Now (BHN) The Trustees of Reservation Cathleen Stone Island Outward Bound School (CSIOBS)
Boston Harbor Islands Advisory Council	The Boston Harbor Islands Advisory Council is not currently chartered. Council members were appointed by the Secretary of the Interior through the Director of the National Park Service. The park superintendent was the Federal Official that oversaw the Council’s operation.

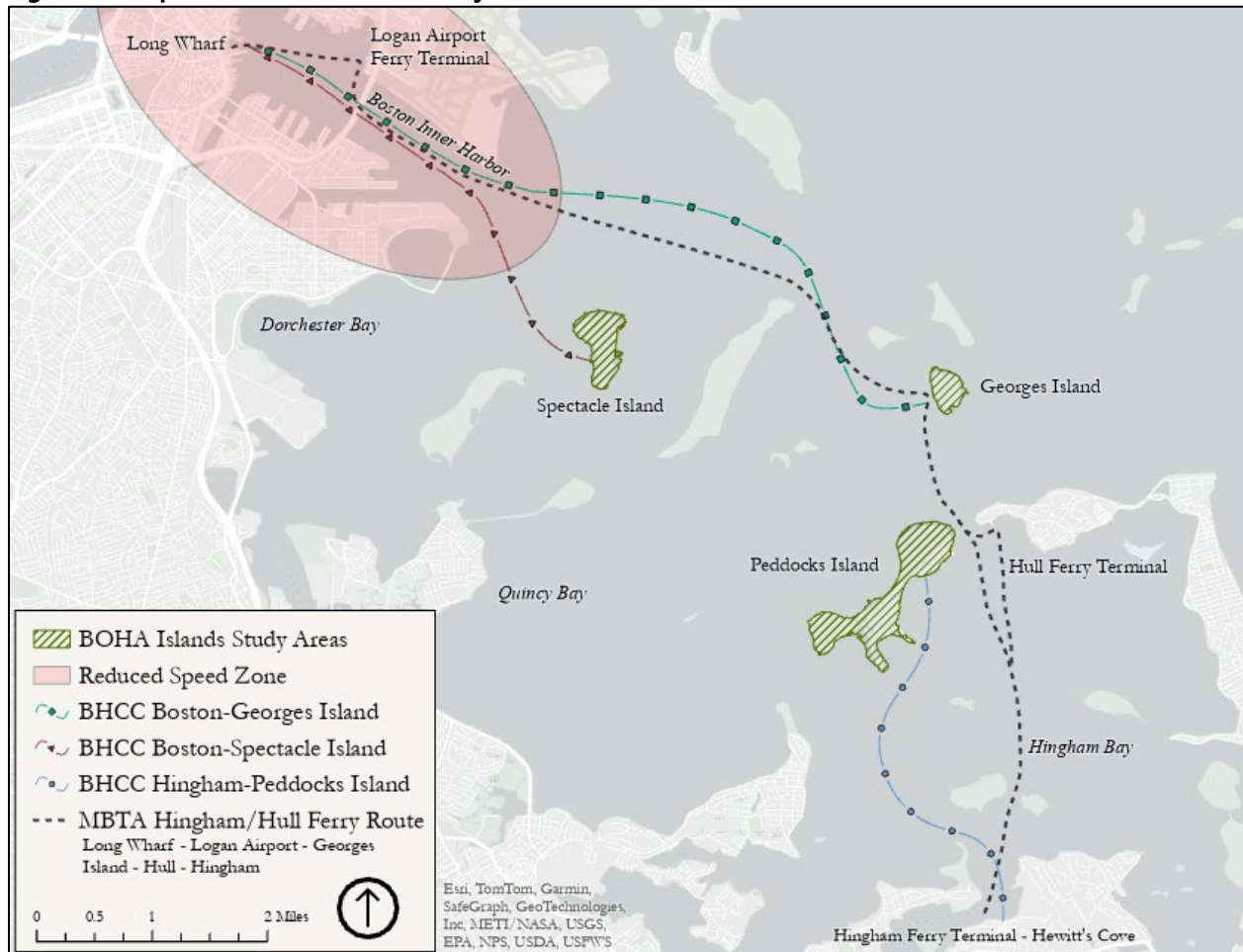
5 Ferry System Overview

5.1 Current Ferry Operations

The Boston Harbor Islands are accessed via a seasonal ferry, which is operated by a private concessionaire, Boston Harbor City Cruises (BHCC). Currently, the only islands that can be accessed by public ferries are Spectacle Island, Georges Island, and Peddocks Island. Ferry routes to Spectacle Island and Georges Island begin at Long Wharf (LW) in Boston, Massachusetts, and routes to Peddocks Island begin at the Hingham Shipyard in Hingham, Massachusetts (Figure 3). Ferry rides to and from the islands are approximately 35 to 45 minutes each way. Vessel speeds are restricted in the channel between Boston and Castle Island at the edge of South Boston due to the no wake zone in the inner harbor.

The contract with BHCC is managed by BHN on behalf of the Partnership and was renewed in 2023 for two additional one-year seasonal periods. BHCC is responsible for making all commercially reasonable efforts to promote the ferry services, while all marketing programs are to be coordinated with the Partnership. BHN and BHCC are required to coordinate marketing efforts for recreational access to the islands 60 days prior to the commencement of ferry services each year. Additionally, the MBTA has a separate contract with BHCC to operate a seasonal ferry between Hingham, Georges Island, and LW, for which MBTA and DCR coordinate on the scheduling of the ferry services.

Figure 3: Map of BHCC and MBTA ferry routes to Boston Harbor Islands as of 2023.



Source: U.S. DOT Volpe Center.

5.2 Routes and Islands Currently Not Serviced

The Partnership previously operated ferry services between Boston and Peddocks Island and an inter-island ferry circulator based at Hingham but neither have operated since summer 2019. The inter-island service primarily transported visitors from one island to another for camping, though day-trip visitors would also use it to visit multiple islands in one day. Additionally, camping was previously permitted at Bumpkin, Grape, and Lovells Islands, but camping on these islands is currently closed as DCR is undertaking a statewide composting toilet replacement project on DCR lands. The timeline for updating the composting toilets and re-opening the campgrounds on Bumpkin, Grape, and Lovells Islands is unknown at the time of this report.

5.3 Sample Ferry Schedule

[Ferry routes and schedules vary by season](#), as outlined in Table 2, Table 3, and Table 4 below. The spring season typically runs from mid-May to mid-June with service to only one island on Thursday through Sunday. The summer season typically runs from mid-June to Labor Day with service to Spectacle, Georges, and Peddocks Islands seven days a week. The fall season typically runs from Labor Day to Indigenous Peoples' Day with service only to one island on Thursday through Sunday. Additionally, the Partnership hosts events on various islands throughout the year with ferries scheduled for those events when they occur outside of the standard operating schedule.

Table 2: Sample spring ferry schedules by island.

Spectacle Island (Thursday – Sunday)			
Depart Boston (LW)	Arrive Spectacle Island	Depart Spectacle Island	Arrive Boston (LW)
10:30 AM	11:00 AM	-	12:00 PM
12:30 PM	1:00 PM	1:30 PM	2:00 PM
-	3:00 PM	3:30 PM	4:00 PM
Georges Island			
No service			
Peddocks Island			
No service			

Table 3: Sample summer ferry schedules by island.

Spectacle Island (7 days a week)			
Depart Boston (LW)	Arrive Spectacle Island	Depart Spectacle Island	Arrive Boston (LW)
10:30 AM	11:00 AM	-	12:00 PM
12:30 PM	1:00 PM	1:30 PM	2:00 PM
2:30 PM	3:00 PM	3:30 PM	4:00 PM
-	5:00 PM	5:30 PM	6:00 PM
Georges Island (7 days a week)			
Depart Boston (LW)	Arrive Georges Island	Depart Georges Island	Arrive Boston (LW)
10:00 AM	10:45 AM	-	11:45 AM
12:00 PM	12:45 PM	1:00 PM	1:45 PM
2:00 PM	2:45 PM	3:00 PM	3:45 PM
-	4:45 PM	5:00 PM	5:45 PM
Georges Island (Weekdays, June 16 – September 1, 2025)			
Depart Hingham (Hewitt's Cove)	Arrive Georges Island	Depart Georges Island	Arrive Hingham (Hewitt's Cove)
10:15 AM	10:35 AM	1:25 PM	1:50 PM
12:00 PM	12:20 PM	3:05 PM	3:30 PM
Georges Island (Weekends, May 17 – October 12, 2025)			
Depart Hingham (Hewitt's Cove)	Arrive Georges Island	Depart Georges Island	Arrive Hingham (Hewitt's Cove)
9:00 AM	9:30 AM	12:25 PM	12:55 PM
10:00 AM	10:30 AM	2:25 PM	2:55 PM
11:00 AM	11:30 AM	3:25 PM	3:55 PM
1:00 PM	1:30 PM	4:25 PM	4:55 PM
Pedlocks Island (7 days a week)			
Depart Hingham	Arrive Pedlocks Island	Depart Pedlocks Island	Arrive Hingham
9:00 AM	9:35 AM	9:45 AM	10:15 AM
10:30 AM	11:05 AM	11:15 AM	11:50 AM
12:00 PM	12:35 PM	12:45 PM	1:20 PM
2:30 PM	3:05 PM	3:15 PM	3:50 PM
4:30 PM	5:05 PM	5:15 PM	5:50 PM

Table 4: Sample fall ferry schedules by island.

Spectacle Island (Thursday – Sunday)			
Depart Boston (LW)	Arrive Spectacle Island	Depart Spectacle Island	Arrive Boston (LW)
10:30 AM	11:00 AM	-	12:00 PM
12:30 PM	1:00 PM	1:30 PM	2:00 PM
-	3:00 PM	3:30 PM	4:00 PM
Peddocks Island (Thursday-Sunday)			
Depart Hingham (Hewitt's Cove)	Arrive Peddocks Island	Depart Peddocks Island	Arrive Hingham (Hewitt's Cove)
9:00 AM	9:35 AM	9:45 AM	10:15 AM
10:30 AM	11:05 AM	11:15 AM	11:50 AM
12:00 PM	12:35 PM	12:45 PM	1:20 PM
2:30 PM	3:05 PM	3:15 PM	3:50 PM
4:30 PM	5:05 PM	5:15 PM	5:50 PM

5.4 Current Ferry Pricing

For the 2025 season, [ferry round-trip tickets](#) for adults cost \$24.95; round-trip tickets for seniors, students, and military cost \$22.95; round-trip tickets for children ages three to 18 cost \$17.95; and children under three years old were free. Five-ride round-trip passes are also available for \$100.

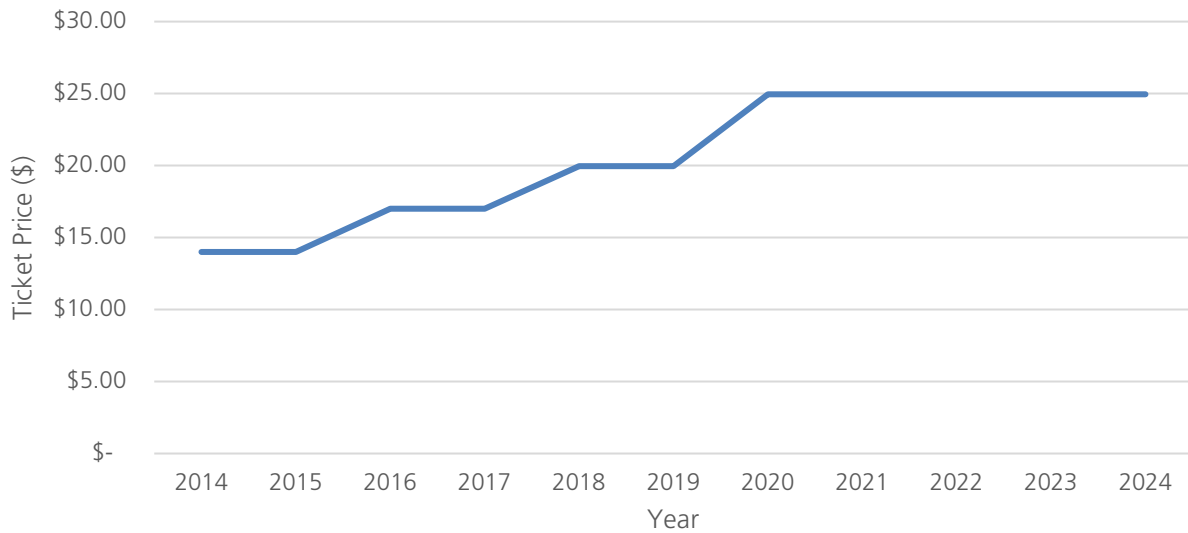
The Partnership offers several [free and reduced cost access options](#) for individuals and groups. Offerings for individuals include two-for-one passes through participating Boston-area libraries and up to four tickets for \$4 each through the Electronic Benefit Transfer (EBT) and Women, Infants, and Children (WIC) nutrition programs. The Partnership hosts Harbor Discovery Camp, a free, week-long day camp for Boston youth from area summer programs, offers free cruises for Boston-area residents, and free day trips to Georges Island and Spectacle Island for chaperoned groups of youth and teens from the Save the Harbor/Save the Bay's All Access Boston Harbor Program. Groups can also apply for 100 free group tickets through the Island Pass Program or apply for the Innovation Islands Mini-Grant program to design their own events and experiences on the islands.

As discussed earlier, the MBTA services Georges Island on a circulator route between Hingham, Hull, and Boston Long Wharf. Although this service is not managed by the Partnership, it is important to highlight as it is also operated by BHCC, uses a faster vessel (high-speed catamaran ferry), and is provided at a lower ticket price (\$9.75 one-way or \$19.50 round-trip). The schedules for the MBTA Georges Island ferry service are distinct from the Partnership ferry service.

5.5 Ridership and Visitation

The volume of full-price tickets sold for ferry ridership to Boston Harbor Islands (via the BHCC-operated Partnership ferry and the MBTA ferry stopping at Georges Island) significantly declined from 2014 to 2024 (Figure 5). During this time ticket prices increased from \$14 in 2014 and 2015 to \$17 in 2016 and 2017, then to \$19.95 in 2018 and 2019, then \$24.95 in 2020 through 2024, shown in Figure 4 below. While inflation starting in 2021 due to and following the pandemic contributed to the increase in ticket prices, overall price increases from 2014 could be a driver for the decrease in full price ticket sales.

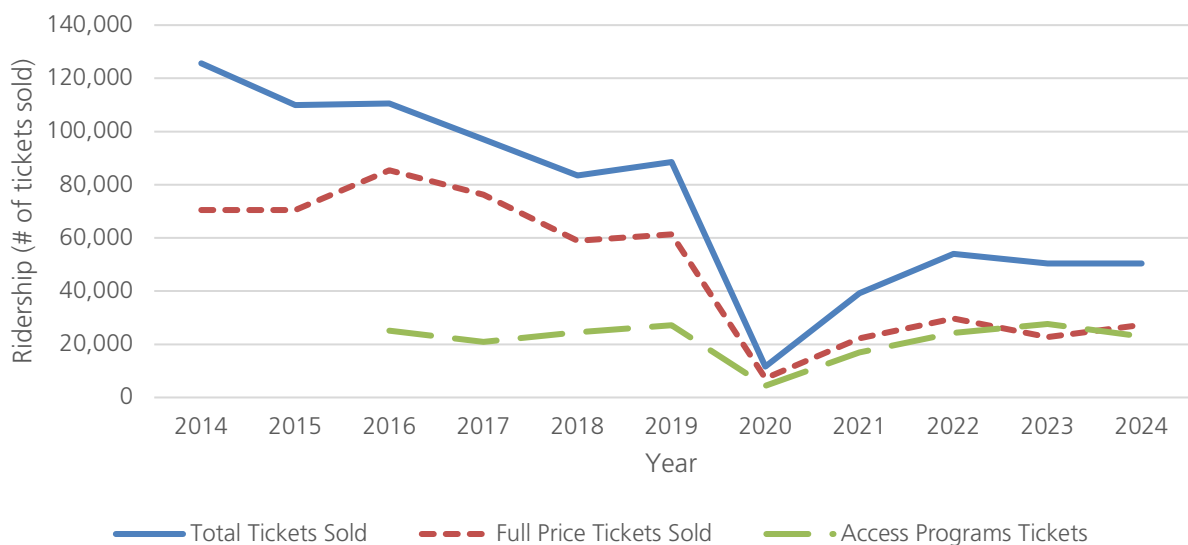
Figure 4: Full-price ticket price, 2014-2024.



Source: Boston Harbor Now.

Ridership has declined since 2014, with a significant drop in 2020 during the COVID-19 pandemic. Operations were initially suspended to comply with stay-at-home protocols; later in 2020, ferry service returned with a limited schedule. The Boston region experienced reduced tourism during this time, resulting in significantly lower visitation to BOHA-BOST than in previous years. While full-price ridership to BOHA has not yet recovered to pre-pandemic levels, free and reduced fare tickets through BHN's access programs have largely returned to pre-pandemic levels after declining during the pandemic, as shown in Figure 5 below. Additionally, inclement weather impacts visitation; for example, during the 2023 season, 17 of the 20 operating weekends saw rain, potentially contributing to lower ridership compared to 2022.

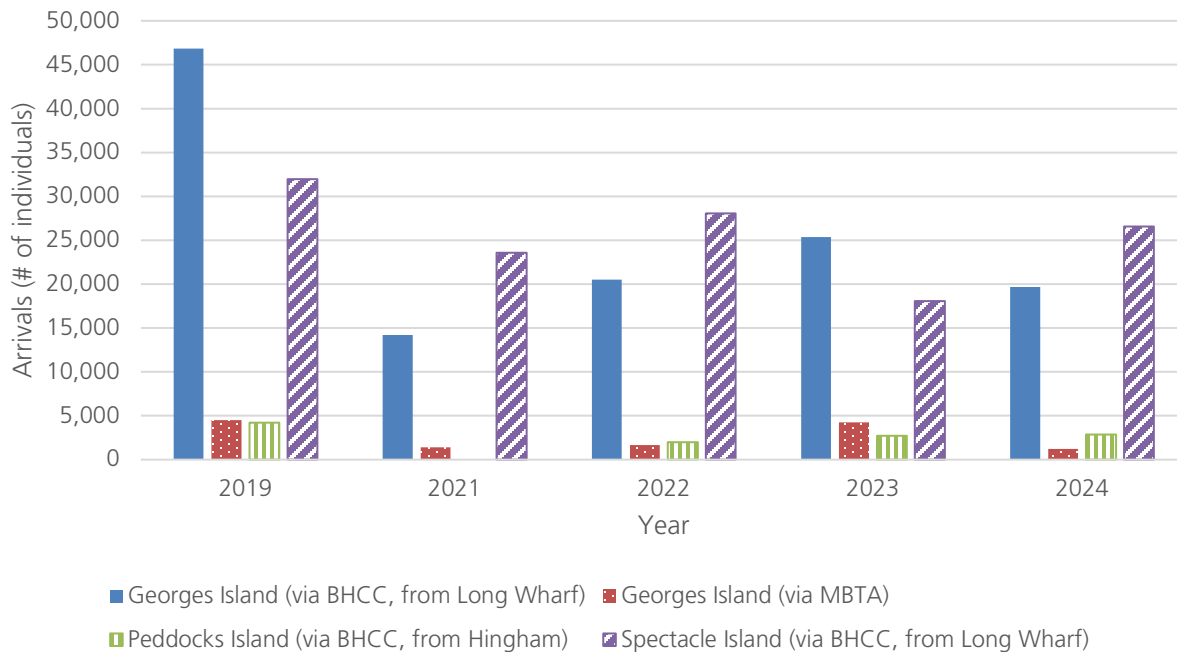
Figure 5: Total ridership from 2014-2024 to all islands included in ferry service.



Source: Boston Harbor Now.

Figure 6 details the total arrivals per island for 2019 through 2023, including arrivals to Georges Island via the MBTA ferry service between Long Wharf, Boston Logan International Airport, Georges Island, Hull, and Hingham. Island-by-island arrival data is not available for 2020 and there was no service to Peddocks Island in 2021 following the pandemic. On average, arrivals to Georges Island via the MBTA account for approximately 10 percent of total arrivals to the island.

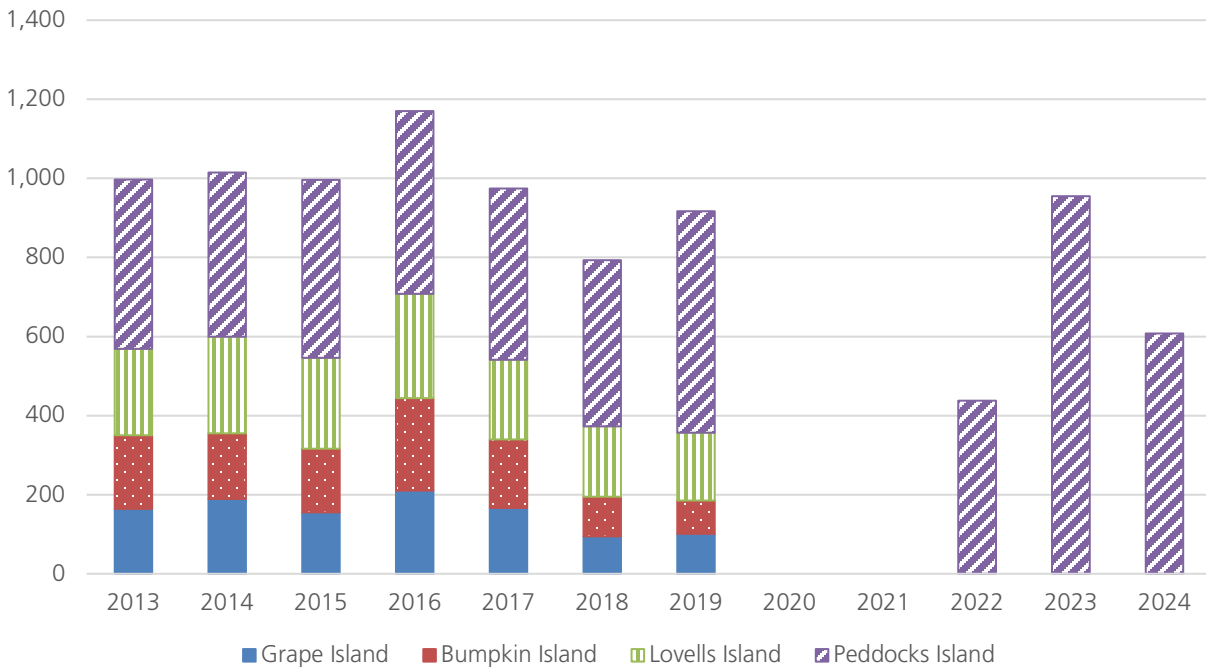
Figure 6: Total arrivals by ferry to Georges Island, Peddocks Island, and Spectacle Island during 2019, 2021, 2022, 2023, and 2024.



Source: Boston Harbor Now.

As mentioned earlier, camping was previously permitted at Bumpkin, Grape, and Lovells Islands, but camping on these islands is currently closed. Figure 7 details the total number of camping reservations from 2013 through 2024 for each island that previously allowed and continues to allow camping. During the COVID-19 pandemic, camping was suspended on all islands. Since then, camping has returned to Peddocks Island only and has returned to pre-pandemic levels, including camping reservations in 2023 more than doubling reservations from 2022 and exceeding total camping reservations across all islands in 2019.

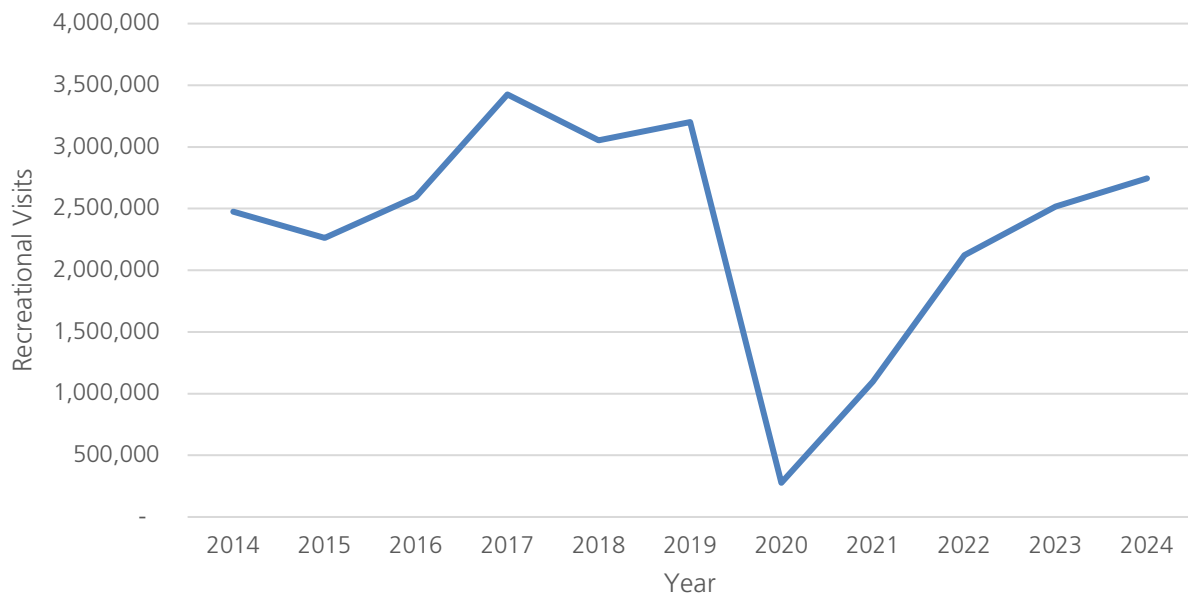
Figure 7: Total camping reservations at Grape Island, Bumpkin Island, Lovells Island, and Peddocks Island from 2013 – 2024.



Source: Massachusetts Department of Conservation and Recreation.

To provide additional context for the recent ridership and visitation data, the project team researched comparable information available. Visitation data for BOST, which combines visitation at multiple sites within the park such as Faneuil Hall and CNY is shown in Figure 8 below. It shows that while visitation decreased significantly during 2020, visitation in 2024 had rebounded to 86 percent of visitation recorded in 2019. Similarly, Boston’s Office of Budget Management reported that the city’s hotel occupancy rate in 2024 had rebounded to 93 percent of the occupancy rate recorded in 2019. In both cases, visitor activity did not match pre-pandemic levels. However, they were much closer than the trend shown in ferry ridership, in which 2024 ridership was only 57 percent of 2019 ridership.

Figure 8: Recreational visits to BOST from 2014 – 2024.



Source: National Park Service.

5.6 Ferry Passenger Experience

There is a Boston Harbor Islands Welcome Center located on the Rose Kennedy Greenway in Boston, which is an approximately five-minute walk from the Long Wharf terminal (Figure 9). The Welcome Center provides maps, brochures, and informational displays about Boston Harbor Islands and Boston National Historical Park; visitors must purchase their ferry tickets at the BHCC ticketing booth on Long Wharf. In summer 2023, the Welcome Center was staffed by NPS rangers from 9:30 am to 6:00 pm, five days a week from late spring to early fall when ferry service was operational. NPS, BHN, and DCR have hosted popular live music nights and other events in the summer at the Welcome Center; prior to the pandemic, they partnered with Mass Audubon for some programs. Ferry passengers starting their journey at the Hingham Shipyard terminal do not receive this orientation to Boston Harbor Islands, since there is not a Welcome Center at this terminal (Figure 12). In addition, informational materials such as brochures or maps are not readily available at either Hingham Shipyard or Boston Long Wharf ticket booths.

Once aboard the public ferry vessel, seating is on a first-come, first-served basis on any of the three floors, and passengers may either sit indoors or outdoors (Figure 10 and Figure 11). There is a concession stand onboard operated by BHCC to purchase food and drinks.

Figure 9: Boston Harbor Islands Welcome Center in Boston, MA.



Source: U.S. DOT Volpe Center.

Figure 10: Passengers on the top deck of the ferry vessel.



Source: U.S. DOT Volpe Center.

During the project team’s public ferry ride to Georges Island on September 22, 2023, the USS Constitution sailed through Boston Harbor for a “turnaround” sail to commemorate its second attempted launch into Boston Harbor on September 22, 1797. The BHCC ferry vessel staff provided a brief history of the USS Constitution over the PA system while passengers took photos. This was a unique ferry passenger experience, since there is no interpretive tour provided on a standard ferry ride to Boston Harbor Islands and the USS Constitution only sails for anniversaries and special commemorations. The project team noted that many passengers expressed their appreciation for the ability to witness this experience on the ferry; future interpretive experiences such as this may be beneficial for the Partnership ferry service.

Figure 11: Passengers on the middle deck of the ferry vessel.



Source: U.S. DOT Volpe Center.

The Visitors Centers on Georges and Spectacle Islands provide a short educational film orienting visitors to the Boston Harbor Islands, which includes reference to the inter-island ferry that is no longer in operation. Additionally, on each island, NPS staff post the ferry departure times for that day on a changeable letter board between the Visitor Center and the pier to help visitors plan their visit and departure time.

Additionally, BHN and NPS jointly host various events and activities on the islands throughout the season such as clambakes, vintage baseball games, and stewardship events, as well as some winter events, many of which are free with the purchase of a ferry ticket. BHN and NPS previously partnered with companies and local universities for special events on the islands, including sailing regatta, 5K races on Spectacle Island, and trips to the islands during college orientation to introduce new students to the city.

5.7 Existing Ferry Terminal Facilities and Operations

Boston Long Wharf is very accessible by the MBTA public transit system via the Blue Line (Aquarium stop), Orange Line (State stop or Haymarket stop), Green Line (Haymarket stop), and Charlestown MBTA Ferry (Long Wharf South). Additionally, the MBTA 4 bus route between North Station and Tide Street provides access to Long Wharf via the inbound Congress Street opposite North Street and outbound Congress Street at State Street stops. The bus also operates a weekends-only service between North Station and South Station and stops closer to Long Wharf via the inbound Atlantic Avenue at Central Street and outbound Atlantic Avenue at State Street – Marriott Hotel stops.

The Hingham Shipyard terminal, shown in Figure 12 below, is not conveniently accessible by public transit. The MBTA Hingham/Hull ferry system operates between Boston and Hingham Shipyard, beginning at Rowes Wharf, but operates on a limited/seasonal schedule. The MBTA 220 bus route between Hingham Depot and Quincy Center Station provides access to Hingham Shipyard via the inbound 319 Lincoln Street and outbound 322 Lincoln Street stops. Anecdotally, BHN and DCR staff note that most visitors are likely to access the Hingham Shipyard terminal by private vehicle.

Figure 12: Ticketing booth at Hingham Ferry Terminal - Hewitt's Cove.



Source: U.S. DOT Volpe Center.

Parking is available near Long Wharf in Boston through various parking garages for approximately \$43 per day. Parking is also available at Hingham Shipyard and is primarily intended for commuters taking the MBTA ferry from Hingham to Boston. The dedicated marina parking has over 3,000 spaces, including over 30 ADA-accessible spaces, and a nearby lot for a grocery store has over 250 additional spaces, including seven ADA-accessible spaces and four electric vehicle charging spaces. Parking for the marina costs \$2 per day and is cash only.

5.8 Ferry Vessel Fleet

BHCC maintains and operates a fleet of 42 vessels. They range from 35 to 150 feet in length and 40 to 600 passengers in capacity. The vessels are used for a range of purposes, such as sunset cruises, sightseeing harbor tours, and the MBTA and BOHA ferry services. The vessels that are typically used for service to BOHA were built in the 1970s and 1980s. Table 5 summarizes the vessels used for the current BHI ferry service. The William F. Lisk is the vessel typically used for service from Hingham to Peddocks Islands and has a capacity of 49 passengers. The vessel for Spectacle Island, Fort Independence, has a capacity of 530 passengers. The vessel for Georges Island, Brant Point, has a capacity of 520 passengers. Vessels are occasionally swapped out with other vessels in the BHCC fleet as needed for maintenance. Table 6 summarizes characteristics of the typical vessels used for BHI service. These vessels have limited ADA-accessibility because they were built prior to accessibility requirements. These are not low emission vessels and use Tier 2 and 3 diesel engines, depending on the vessel. Typically, BHCC uses different, often faster and more efficient, vessels from their fleet for off-season trips to the islands for special events and programs.

Table 5: Typical vessels used per route.

Route	Typical Vessels
Boston – Spectacle Island	Fort Independence
Boston – Georges Island	Brant Point
Hingham – Peddocks Island	William F. Lisk

Source: 2020 National Census of Ferry Operators

Table 6: Ferry fleet characteristics

Vessel Name	Passenger Capacity	Fuel Type	Typical Speed (knots)	Year Built	Fuel Mileage (gallons/hour)	ADA Accessible
Brant Point	520	Diesel	12	1973	50	No
Fort Independence	530	Diesel	10	1984	30	Yes
William F. Lisk	49	Diesel	12	1974	20	No

Source: 2020 National Census of Ferry Operators

The Partnership ferry service currently uses monohull displacement ferry vessels for all routes and schedules. The ferry vessel that the project study team rode on the site visit has three decks, with the lowest deck entirely enclosed, the middle deck partially covered but not enclosed, and the top deck fully open. Apart from the Hingham to Peddocks route, the Georges Island and Spectacle Island ferries have maximum capacity of 530 and 520 passengers, respectively. However, capacity is typically limited below this threshold in case of inclement weather such that all passengers can be indoors. Passengers are onboarded and offloaded on the port (left-hand) side of the vessel.

5.9 Port Dock Infrastructure

The docks at Long Wharf and Hingham Shipyard ports are in good condition overall and ADA-accessible. Dock infrastructure at Long Wharf and Hingham Shipyard are shown in Figure 13 and Figure 14, respectively, below. The following section summarizes the current conditions of port dock infrastructure on Georges Island, Spectacle Island, Peddocks Island, and Pier 1 based on Inspection and Condition Assessments conducted by GEI in April 2023. The reports summarize the inspection findings and detail their recommendations in addition to providing thorough cost estimates, site inspection photographs, proposed pier layout and condition plans, repair maintenance plans, and proposed demolition plans, where applicable. Recommendations and cost estimates for repairs are divided into immediate, annual, and long-term needs for each asset in addition to accessibility specific and climate change-oriented recommendations.

Figure 13: Port dock infrastructure at Long Wharf, Boston.



Source: U.S. DOT Volpe Center.

Figure 14: Port dock infrastructure at Hingham Shipyard.



Source: U.S. DOT Volpe Center.

Georges Island Port Dock Infrastructure

At Georges Island, GEI inspected the main pier, north pier, vessel barge and site access, wave fence, and shoreline protection. GEI reviewed all pier elements including timber piles, pile caps, stringers, bracing, decking, railing, fender system, aluminum ramp system, steel barge, steel piles, and granite block seawall. Notably, the condition of the pier and its facilities generally had worsened since GEI's last inspection in 2015. However, all defects appeared to be deteriorating at a constant rate. No evidence of accelerated deterioration was discovered at the time of the 2022 inspection. Recommended repairs included repairs to the Main Pier structure, the Ferry Barge, and the Small Boat Barge. The pier infrastructure consists of three separate piers, however only the main center pier is accessible to the public and the North and South piers have been damaged and/or removed. The report did not include recommended repairs to the North and South Pier because they were to remain condemned, closed areas. Currently, the dock is ADA-accessible utilizing a switchback ramp system, except during low tides when the slope exceeds ADA limitations. There is a paved/crushed gravel path around the perimeter of the island that is also ADA-accessible. Accessibility improvement recommendations included replacing warning strips along the edge of the barge, replacing the existing railing system with a compliant railing system, and replacing stairs on the barge with risers.

Spectacle Island Port Dock Infrastructure

At Spectacle Island, GEI inspected the concrete pier, timber wave fence and fender system, concrete floats, and vessel barge and site access. GEI reviewed all pier elements including concrete deck, pile caps, piles, timber wave fence, aluminum ramping system, steel barges, steel mooring piles, and concrete floats. The Spectacle Island pier is L-shaped and sits at an approximately 45-degree angle to the southwest of the island, rather than perpendicular. This orientation causes sediment build-up on the southern side of the pier. The pier is composed of two sections, the Approach pier and Main pier, with a concrete float marina with one main float for the public ferry and two finger floats for private boats. Previously, there was a third finger float, but it was removed due to sediment build-up. Notably, the condition of the pier and its facilities generally had worsened since GEI's last inspection in 2016. However, all defects appeared to be deteriorating at a constant rate. No evidence of accelerated deterioration was discovered at the time of the 2022 inspection. Recommended repairs included repairs to concrete decking, timber wave fence, timber

fender system, concrete floats, steel barge, steel mooring piles, aluminum gangway and ramping system, steel ladders, and accessibility improvements. Currently, the dock is ADA-accessible and there is an eight-mile ADA-accessible crushed gravel path around the island. Accessibility improvement recommendations included replacing stairs on the barge with risers and replacing missing ADA strips once the concrete deck is repaired. It is important to note that ferry captains may opt to pull into the face of the dock at Spectacle Island rather than the slip to reduce the risk of collision if there are other boats present. When this occurs, ADA accessibility from the vessel to the dock becomes significantly reduced.

Peddocks Island Port Dock Infrastructure

At Peddocks Island, GEI inspected the timber pier, vessel barge, and site access. They reviewed all pier elements including timber piles, pile caps, stringers, bracing, decking, railing, fender system, aluminum ramp system, steel barge, and steel piles. The pier consists of two main sections, the Approach pier, and the Main pier. Notably, the condition of the pier and its facilities generally had worsened since GEI's last inspection in 2016. However, all defects appeared to be deteriorating at a constant rate. No evidence of accelerated deterioration was discovered at the time of the 2022 inspection. Recommended repairs included repairs to timber members throughout the pier structure and reinstallation and relocation of the small boat barge. Accessibility improvement recommendations included a major long-term repair to the black gangway of introducing pickets that limit openings to a maximum of a 4" diameter. The pier is mostly ADA-accessible, except during low tide.

Pier 1 Port Dock Infrastructure

At Pier 1, GEI inspected the pier deck outside and within the USS Constitution security fence, vessel barge and site access, and concrete/granite vaults. GEI reviewed all pier elements including composite beams, granite abutments, concrete foundations, decking, railing, fender system, barge, and gangways. The inspection concluded that the pier is deteriorating at a normal rate. Defects observed during previous inspections conducted in 2000 and 2017 had worsened as expected due to corrosion. Recommendations included both immediate and long-term repairs to the pier's safety elements, USS Cassin Young access points, and USS Constitution access points. Climate change impacts to Pier 1 include a high projected sea level rise by 2072 of over 2.85 feet and that the pier and upland elevations will be completely inundated under a current one percent annual exceedance storm event in accordance with Federal Emergency Management Agency (FEMA) Flood Hazard projections. It is noted that raising the pier elevation would be premature but may be relevant in future inspections. In addition, the gangway providing USS Constitution access was not compliant with ADA. However, the steel ferry barge had an ADA-compliant ramping system. Accessibility improvement recommendations include reinstalling the edge protection/guardrails to an appropriate height and adding netting or welded wire mesh at an appropriate height to all gangways/raised platforms for pedestrian access.

6 Stakeholder Conversations

The Boston Harbor Islands National Recreation Area Ferry Service and Operations Study team sought input from partners to better understand the ferry system’s priority needs and potential alternative service models to consider. The team engaged with a wide range of stakeholders throughout the summer and fall of 2024 to discuss opportunities for improving the ferry service on topics appropriate to each organization. Stakeholders identified are among the following organizations in Table 7 below, which included members of the Boston Harbor Islands Partnership, along with other relevant parties.

Table 7: Stakeholders included in conversations.

Type	Organization
Federal	National Park Service
State	Massachusetts Department of Conservation and Recreation (DCR) Massachusetts Water Resources Authority (MWRA) Massachusetts Department of Transportation (MassDOT) Massachusetts Bay Transportation Authority (MBTA) Massachusetts Port Authority (Massport)
Municipal	City of Boston Boston Planning and Development Authority (BPDA)
Nonprofit	Boston Harbor Now (BHN) USS Constitution Museum Meet Boston Cathleen Stone Island Outward Bound School (CSIOBS) Friends of the Boston Harbor Islands (FBHI) Friends of Charlestown Navy Yard Save the Harbor/Save the Bay (SHSB) Courageous Sailing Navy Yard Garden and Art Massachusetts General Hospital Institute of Health Professions
Private	Boston Harbor City Cruises (BHCC)

The team grouped representatives of each organization into cohorts to focus on key discussion areas and ensure that perspectives from related institutions were considered. Cohort discussions were scheduled for one meeting each, and on occasion were extended to a subsequent meeting, along with additional follow-up emails when necessary. The discussion cohorts included:

- BHI Leadership
- CNY
- Education
- Ferry Operators
- Massachusetts State Land-Ownning Agencies
- Massachusetts Transportation/Planning Agencies
- NPS
- Non-Governmental Organizations (NGOs)
- Tourism
- Visitor Engagement

6.1 *What We Heard*

Enhance the visitor experience on the ferry and islands

Stakeholders agreed on the need to improve access and wayfinding at gateways and visitor facilities, as simply locating where to go to access the ferry service is a commonly identified challenge. Locations including CNY and the Welcome Center were most frequently mentioned. Stakeholders also desired to improve service frequency, increase the number of accessible islands, increase activities and attractions on the islands, and add features that interpret history and provide the background of the islands and the harbor.

Expand marketing and understand different kinds of visitors (locals and tourists)

Participants from multiple groups noted that there are significant opportunities to explore new venues for marketing through social media, podcasts, and physical advertising in new locations such as Boston Logan International Airport. At the same time, an understanding emerged that visitors to the islands who are local to the Boston area have different needs, interests, and time constraints from tourists, and marketing efforts should be sensitive to these differences. Some stakeholders focused on improving visitation from tourists to the Boston area, while others emphasized the opportunities to attract locals and improve access for underserved and harder-to-reach communities.

Challenges include costs, but partnerships can ease the burden

Stakeholders discussed costs as representing barriers for visitors to the islands and implementing improvements to the ferry system. However, there are many stakeholders invested in the ferries, harbor, and islands, which present great potential to leverage their engagement for the benefit of improving the system's service and operations. Collaborating on marketing, fare subsidies, programming, and sharing of operations and staff are all potential areas for improving both access and visitor experience while saving on costs.

Stakeholder conversation summaries including key takeaways from each conversation are summarized in Table 8 below.



Table 8: Stakeholder conversation summaries.

Cohort	Affiliation	Attendees	Date	Key Takeaways	Summary
BHI Leadership	•NPS (BOHA-BOST) •NPS (NER) •BHN	•Michael Creasey •Liza Stearns •Connor Smyth •Kathy Abbott •Alankrita Narang •Marc Albert	9/11/24	• Need a dedicated person at DCR to focus on islands and water transportation • More information about harbor gateways should be provided for public, such as MBTA’s lease at Hewitt’s Cove • While visitation should increase, ferry service will focus on Georges and Spectacle Islands in the near term	Participants noted that DCR, NPS, and BHN used to meet annually to talk through ferry routes, fees, and overall management, but this committee has lapsed. While DCR is a vital partner, their voice has not been as routinely engaged at all levels as they could be, and this study is an opportunity to bring them back to the table. DCR’s staffing and funding is moving to a better place. While NPS and DCR jointly staff the islands, there can be a disconnect with seasonal staff presence onsite and office staff not being present. The meeting included a discussion of guiding principles as well. Participants agreed that one of the focuses should be increasing visitation and ensuring financial sustainability both for visitors and the ferry operator.
Charlestown Navy Yard (CNY)	•USS Constitution Museum •Navy Yard Garden and Art •Friends of CNY •Massachusetts General Hospital Institute of Health Professions •Courageous Sailing	•Anne Grimes Rand •Melissa Drake •Nancy Krepelka •Denis Stratford •Dave DiLorenzo	10/9/24	• CNY wayfinding is a significant challenge, especially for tourists • A CNY-Boston Harbor Islands ferry connection would require successful marketing, demand, connections to other sites • Visitors do not ask about the islands or incorporate a visit to the islands as part of their day	Getting to, from, and around CNY were raised as serious challenges by the stakeholders. They noted that it is difficult to get to the area without a vehicle and it would be beneficial to have more and easier ferry connections to downtown. The group noted that an inter-harbor connector route, with stops such as Long Wharf and the North End, might address many of these issues. Wayfinding in CNY poses significant challenges to tourists. The success of a ferry connection between CNY and the Boston Harbor Islands would depend on a marketing campaign that communicates what the islands are like, how the system connects to other sites such as Bunker Hill, the service model (such as hop on-hop off), and whether the demand exists.
Education	•Cathleen Stone Island Outward Bound School (CSIOBS)	•Alec Heillman	9/11/24	• Public visitation is minimal. Most visitation outside of programming is through private events • Open to increasing engagement/involvement with other partnership members • Interested in expanding programming and formalizing connections to other harbor islands	Cathleen Stone Island is typically used for weddings, the Outward Bound program, and public access. Most of their visitation is from word of mouth or previous customers, and the public access visitation is very low. Island staff occasionally work with other members of the Boston Harbor Islands partnership, but engagement is limited due to staff capacity. Capt. Heilmann noted that increasing engagement with the rest of the partnership would be beneficial to better understand each other’s operations and identify opportunities. They have an interest in expanding programming for the island, such as offering lighthouse and harbor tours, linking existing BOHA islands to CS Island, and seasonal events.



Cohort	Affiliation	Attendees	Date	Key Takeaways	Summary
Ferry Operators	•BHCC •BHN	•Bob Lawler •Jeanne Sullivan •Adam Murphy •Matthew Murphy •Alankrita Narang	9/20/24	• Ferry ridership is still recovering since COVID, and 2024 BHI ridership was probably lower due to closure at Georges • Marketing focuses on digital, and there are opportunities for more venues such as podcasts and social media • Updated fare structures could help with visitation, but it is important to consider time commitment and competing activities; local visitors may be an untapped market.	Participants at the meeting discussed BHCC’s recent experience with ridership, the popularity of water transportation and recreation, ferry service marketing and partnerships, staffing, sustainability efforts, and data collection.
Massachusetts State Land-Owning Agencies	•MWRA •Massport	•Andrew Hargens •Joel Barrera •Katherine Ronan	9/12/24	• Suggested adding a ferry departure point in South Boston. Tall Ship Boston is a popular bar and has been a missed opportunity • Islands are missing incentives to visit; lack of specific activity/attraction • Visitor Center on the Greenway is a good facility but needs improvement via options such as new location, more storytelling, introduction to the islands • More marketing is needed in general. MWRA is not sure if visitors understand that Deer Island and the plant are part of the Park. Massport is open to helping with advertising.	Massport is open to increasing marketing efforts jointly. Some ideas include physical ad space on buses or at the airport, as well as inviting NPS rangers to events such as the seafood market. Previously designed an installation to market the islands at their waterfront pavilion. MWRA plays a unique role in the partnership. Deer Island treatment plant is an important operational facility with safety and security concerns, limiting public access. However, MWRA allows public access via guided tours. The rest of the island functions as a park with consistent public access including walking trails, waterfront views, and dog-walking. Parking is limited to about 50 spaces. MWRA is interested in exploring ferry service potential and adding ferry departures from Commonwealth pier. There is sufficient dock infrastructure at Deer Island.



Cohort	Affiliation	Attendees	Date	Key Takeaways	Summary
Massachusetts State Land-Owning Agencies	•DCR	•Belle Procaccini •Priscilla Geigis •Robert King	10/7/24	• Obstacles limit physical capacity and accessibility of each island, including: Spectacle gangway, pier deficiencies, school groups, composting toilets, Georges waterline, lack of consistent concessions • Discounted ridership is up 35 percent, regular fare ridership is down. • No advertising or wayfinding in Hingham. Limited at Long Wharf as well. • Interest in rangers narrating as part of ferry experience.	DCR owns and is responsible for operations at 16 of the 34 Boston Harbor Islands and owns and is responsible for maintaining all the infrastructure. DCR staff work with BHN to oversee the contracts and schedules for infrastructure maintenance, although BHN typically leads these contracts. DCR rangers are available to provide island tours to visitors and strives to have seamless coordination with NPS and their rangers, as well as work with NPS and BHN to promote island visitation. DCR directly receives visitation numbers, and records visitation numbers by private boat and other programs. Participants noted they hope to discuss the ferry contract, marketing opportunities, and how best to leverage their role in the partnership at an upcoming retreat for the Partnership. DCR has bolstered social media pages to engage potential visitors, with a presence on Instagram and YouTube. Previously, DCR provided a subsidy for visitation to the islands until 2013, though the agency has not discussed this since and mentioned needing to check in with the commissioner on the potential for this to return. The ferry contract is specifically with BHN because they have more flexibility as an NGO. There is potential for DCR to take a more active role. DCR is interested in revisiting the opportunity to explore multiple islands in a day.
Massachusetts Transportation/Planning Agencies	•MBTA •MassDOT •City of Boston •BPDA	•David Perry •Patricia Cahill •Alice Brown •Richard McGinnis	10/1/24	• The City needs a new contact for the Partnership • Ferries are expensive to operate with labor costs, office space, fuel, etc. The City has some resources that can be utilized by the Partnership. • Integrate islands ferry as more of a “transit” experience through fares and schedules • Uncertain about the feasibility of service from Charlestown or Hull/North Shore, but open to piloting	BPDA has a seat on the partnership and is interested in exploring how staff skills can be better utilized. BPDA owns Long Wharf and is invested in making sure it remains structurally capable of facilitating trips to the island against sea level rise conditions. MBTA service to Georges from Hingham is under an informal arrangement that works well among stakeholders, although this service is confusing to the public. MBTA is interested in expanding the service. Short-term could include making schedule changes. Long-term options include offering service to more islands on MBTA boats from Long Wharf to Hingham. The team would work together on marketing and integrating islands ferry service as more of a transit experience through fares and schedules. MassDOT’s water transportation study will examine how to strategically increase ferry service across the Commonwealth and provide users with a multimodal experience. MBTA is writing a new RFP for the ferry contract after April 2025. They are not looking for one bidder to serve all routes but historically have not had much competition. BHCC branding/ownership of ferry routes could cause more confusion and be a barrier to entry, as it makes the experience seem more like a cruise or special outing, rather than something that is always accessible.



Cohort	Affiliation	Attendees	Date	Key Takeaways	Summary
NGOs	•SHSB	•Kristen Barry •Chris Mancini •Jason Rundle •Meghan Gonzalez	9/27/24	• Need to take a leap of faith and invest resources in islands to get more people to visit. Visitation will not increase without investing more money. • SHSB conducted an accessibility audit and found a lack of information for visitors on accessibility and what to expect of the Boston Harbor Island experience if you have mobility challenges	SHSB emphasized the need for additional resources to increase visitation to the islands. They envision Fort Warren being the “Alcatraz of the East,” and realizing that goal is not possible without investing more funds into attracting visitors. They shared that they have free community cruises and are evaluating how to change their schedule and what islands they serve to minimize the number of no-shows. SHSB conducted an accessibility audit and identified a lack of information available to visitors on accessibility and what to expect of the island experience if visitors have mobility challenges.
NGOs	•FBHI	•Suzanne Gall Marsh •Walter Hope	11/5/24	• Want to return Boston Harbor Islands to the level of service it used to have • Service should expand to more islands • Service from Quincy should be added	Participants were very eager to return the Boston Harbor Islands to what it used to be, such as improving schedules and expanding the public ferry service outside of Georges, Spectacle, and Peddocks. They would also like to improve the visitor experience by adding service to the islands from Quincy (since Boston is expensive and difficult to reach and Hingham only serves one island) and by making the docks accessible. Participants noted a citizen letter regarding the accessibility of the islands from summer 2024. Other concerns included the current ferry contract and marketing efforts and added that programmed events often draw big crowds.
NPS	•NPS Washington Support Office (WASO) •NPS Northeast Region (NER)	•Michael Madej •Connor Smyth	9/11/24	• WASO and NER help connect planning and funding with parks and are improving tracking of fund usage • WASO is prioritizing consistent standards between ferry systems across the NPS • Creating a Community of Practice among NPS ferry systems to share best practices, contract language, operations, etc., could be an opportunity to increase consistency	Participants noted that WASO and NER are less involved in the day-to-day operations of BOHA given that they sit at the program level, but their role with the park is helping to connect the dots between planning and funding and increasing consistency among systems. Participants discussed the potential for creating a Community of Practice for NPS parks with ferry systems to share best practices, contracts, operations, and other resources.



Cohort	Affiliation	Attendees	Date	Key Takeaways	Summary
Tourism	•Meet Boston	•Martha Sheridan •Hilina Ajakaiye •Kate Davis •Michael Munn	9/24/24	• Meet Boston is interested in working with NPS/BHN to help promote islands. • A grant opportunity is available through the Massachusetts Office of Tourism for the 250th Anniversary that could be used for programming. • Visitors like the idea of the islands, but do not always know what to expect there	Meet Boston is interested in working with NPS and BHN to help promote their events to reach new audiences, especially with younger Boston locals and leveraging new social media techniques. Participants mentioned some key considerations for visitors when planning a trip to the islands: • Total price for a group of four • Total time required to travel to the islands. Attention spans are limited, though programming may offer a variety of activities. • What to expect on the islands. Potential visitors may not know what to expect and may not be willing to pay or commit the time. Participants mentioned additional considerations for the management of the islands. These included exploring opportunities to augment experiences on islands outside of programmed events, such as scavenger hunts. Opportunities to attract new visitors and audiences, such as Gen Z, should be explored, as they may be unaware of the islands.
Visitor Engagement	•NPS (BOHA-BOST) •BHN •DCR	•Liza Stearns •Amelia Benstead •Celena Illuzzi •Elisabeth Colby •Rebecca Smerling •Jack Murray •Christian Merfeld •Scott Bockus •Meghan McKenna •Belle Procaccini	10/31/24	• Longtime visitors lament the lack of experiences available prior to COVID (such as the interisland ferry, Spectacle-Hingham connection, cheaper tickets, better concessions on the ferry) • BHN markets the islands extensively, but most visitors hear about the islands via word of mouth • Visitor experience could be improved by improving the Welcome Center connection to the ferry docks, increased wayfinding, concessions available on ferries, and interpretation on ferries • An interisland itinerary event could be an opportunity to gauge demand for interisland service	Participants noted that awareness of the islands varies significantly, and first-time visitors often do not always know what to expect, while returning visitors may be upset that the current service differs from pre-COVID. They noted that the Welcome Center is in a challenging location because it is not close to the ferry docks. Staff often answer general tourism questions and cannot speak to everyone who passes by. They also noted some opportunities to improve the visitor experience, such as improved concessions on board the vessel, piloting interisland service as a one-time itinerary to gauge demand, narration on board the vessel, and adding Quincy or Hull as additional sailing locations because there are significant numbers of visitors from those towns.

7 Opportunities Assessment and Baseline Recommendations

Through the Existing Conditions Analysis, multiple site visits, and stakeholder conversations, the project team developed an understanding of the ferry system's key challenges, opportunities, and recommended options to pursue for system improvement. Challenges, Opportunities, and Recommendations were grouped under several themes including Visitor Experience, Ferry System Routing and Service, Ticketing and Fares, Public Information and Partnerships, Administration and Funding, Capital Investment and Infrastructure. This study is intended to inform future planning and decision-making. Public input and additional analysis during Phase 2 of the BOHA Ferry Study will help inform any future decisions.

7.1 Key Challenges

The project team analyzed key challenges related to BOHA's ferry system through extensive consultations with stakeholders and examination of the system's historical usage and operations.

Visitor Experience

The islands offer unique recreational and educational opportunities, but accessibility, amenities, and programming limitations hinder the overall visitor experience. Challenges such as staffing constraints, limited attractions, and seasonal disruptions impact engagement and enjoyment for visitors.

- Access can be difficult and expensive, with limited events. Weather events can disrupt sailings and events and lead to closed attractions.
- Attractions and other incentives to visit are lacking and historic site access can be limited.
- NPS and DCR staffing can limit access, interpretation, and events.
- Camping facilities need improvements, especially toilets.
- Off-season events, like Winter Wonder and Winter Wildlife, are successful but limited and may be canceled or postponed due to weather.
- The Welcome Center does not sell tickets and is not directly on the water. Staffing has been a challenge.
- Visitors often perceive transportation as separate from the overall experience.
- There is a need for more activities, but visitors may not fully understand what is available.
- Adventure recreation opportunities are limited.
- Amenities are lacking across the islands.
- Accessibility improvements are needed to make the experience enjoyable for people with mobility or developmental challenges.

Ferry System Routing and Service

The ferry system serves as the primary means of access to the islands, but long sailing times, limited routing options, and infrastructure deficiencies create barriers to efficient and enjoyable travel. Seasonal restrictions and operational challenges further complicate accessibility, reducing options for visitors.

- Sailing times are long due to the distance to the islands and speed restrictions.
- Georges Island can be reached via MBTA service at a lower price from both Long Wharf and Hingham.
- Routing options are limited to three islands and two gateways. There is no BHI ferry connection to CNY.
- Cathleen Stone Island, which has successful educational and scientific programming, is not linked to the other islands.
- Physical capacity and accessibility are limited by obstacles such as Spectacle Island's gangway, pier deficiencies, and Georges Island's waterline.

- Ferry departure frequency is low, with limited arrival times. The schedule makes visitors commit to either a full-day trip or a very short visit.
- The sailing season is short, with limited service in the fall.
- Gateways present access challenges to visitors. Long Wharf has excellent connections to transit, bike, and pedestrian facilities, but limited parking options. Hewitt's Cove has adequate parking but is more difficult to access via other means from population centers.
- The ferry operator faces crew challenges due to limited access to an adequate labor pool.

Ticketing and Fares

High fares and declining ridership pose financial challenges for the ferry system, impacting revenue and accessibility. Discount programs are popular but their efficacy in increasing visitation is uncertain. The overall affordability of the ferry service remains a concern for visitors and the operator.

- Fares to ride the ferry are high and have steadily increased since 2014.
- Ridership has steadily declined since 2014, with a significant drop during the pandemic. Ridership numbers have recovered slightly, but only to 57 percent of the 2019 level.
- Discounted fares are popular and impact ferry revenue collected.
- There are challenges in verifying participants' eligibility for free or discounted tickets.
- The concessioner and BHN expect to earn revenue from the ferry service, but revenue has declined, and the service may result in a loss for BHCC.

Public Information and Partnerships

Limited awareness and marketing efforts hinder visitor engagement with the islands, making it more difficult for potential visitors to understand available experiences and transportation options. Strengthening partnerships, improving branding, and expanding outreach efforts could enhance visibility and attract more visitors.

- There is a lack of information and awareness about transportation to the islands and experiences available there.
- Existing marketing focuses on digital but is lacking in areas such as social media and podcasts. There is a tight marketing budget, and more marketing (including multilingual) is needed in general.
- There is limited advertising, especially in physical media such as transit or airport advertisement.
- Tourism organizations may be able to help with marketing, but relationships with state and city tourism organizations are limited.
- There is a lack of marketing strategy and coordination of marketing among the Partnership. There is little cross pollination/promotion with other local sites. NPS only provides ad hoc support in raising awareness of the islands.
- The Welcome Center shows challenges in terms of location, storytelling capabilities, and ticket sale options. It serves as a concierge service area for the aquarium and other sites, but less of a place visitors stop for BHI.
- There is no official gift shop or branded gift items available.
- There is lots of competition for the time and attention of locals and visitors, and recreational opportunities have only increased in recent years.
- Wayfinding at CNY can be lacking or confusing for visitors, and there is little connection with the islands.
- The islands lack a cohesive brand identification. BOHA's status as a partnership park leads to a proliferation of organizations and logos.

Administration and Funding

Operational and financial constraints limit the ability of agencies and partners to effectively manage ferry services and visitor programs. Staffing shortages, data gaps, and complex contracting processes create obstacles to long-term sustainability.

- Contracting for and managing ferry services can be challenging, particularly in attracting multiple bidders for the concession
- Staff capacity is limited across BHN, NPS, and DCR
- There is limited data available about visitors, and surveys have not been conducted recently
- The capabilities of the Partnership are limited due to its organization and division of responsibilities between parties

Capital Investment and Infrastructure

Aging infrastructure, accessibility concerns, and environmental challenges threaten the long-term viability of ferry operations and island facilities. Investments in modernization, sustainability, and resilience are necessary to ensure safe and efficient access.

- Passenger facilities need updates, including for ADA accessibility
- Sea level rise and extreme weather have impacts on infrastructure
- The current ferry fleet is old and produces high emissions

7.2 Opportunities

The project team developed a comprehensive list of opportunities to improve the ferry system for stakeholders and the visiting public. The resulting list represents a wide range of options which vary in complexity, feasibility, and desirability. Each opportunity was classified under the same six thematic areas, however many opportunities for system improvements overlap with other thematic areas. Each opportunity has an associated timeframe within which it may be implemented including ongoing and short-, medium-, and long-term actions. Opportunities with longer implementation timeframes may be considered more complex or costly. Through coordination with stakeholders, the project team assessed whether each opportunity should be recommended for further study or implementation. Recommended actions are discussed in Section 7.3, and certain recommendations are elaborated further in subsequent sections of this report. A full list of opportunities and recommendations may be found in Appendix A: Opportunities and Recommendations.

Visitor Experience

The project team developed opportunities under the Visitor Experience theme, summarized in Table 9 below. These opportunities include options that could improve the enjoyment and experience of visitors while planning a trip, boarding a ferry, riding the ferry, or exploring the islands.

Table 9: Visitor experience opportunities.

ID	Opportunity	Description	Baseline Recommendation
V1	Increase on-island programming, including increasing self-guided programming activities	Additional variety of programmed events on the islands may draw a greater variety of visitors and increase visitation overall	✓
V2	Provide greater diversity of summer programming	Additional types of events, such as outdoor movies, concerts, and nature walks should be considered	
V3	Increase off-season programming	Consider additional programming during fall, such as Halloween events	
V4	Integrate audio and visual elements into Welcome Center	Attract walk-in visitors from the Greenway	
V5	Consider moving the Welcome Center to Long Wharf ticketing location	To associate the Center more closely with the harbor, a land-swap with BHCC has been discussed.	
V6	Increase on-island information	Provide additional interpretive resources on islands	✓
V7	Increase ADA accessibility of docks	Prioritize accessibility of Spectacle, Peddocks, and Georges Islands	✓
V8	Strengthen Boston Harbor Islands connection to NPS sites	CNY, Faneuil Hall, the Black Heritage Trail, and the Freedom Trail draw high numbers of visitors	✓
V9	Develop a cohesive resource for visitors looking to visit all Boston-area NPS sites	Ensure visitor awareness of the BHI when planning a trip to Boston	✓
V10	Increase cell service connectivity on islands	Facilitate emergency communication	
V11	Increase food and other concession offerings on islands	This will improve the attraction of a visit to the BHI	✓
V12	Ranger presence, other programming, or audio recording on ferries for interpretation	This will improve visitors' understanding of the harbor's environment, history, and island resources	✓

Source: US DOT Volpe Center

Ferry System Routing and Service

The Ferry System Routing and Service theme includes opportunities related to the service characteristics of the ferry system, including origins, destinations, schedules, and vessel types. Opportunities are summarized in Table 10 below.

Table 10: Ferry system routing and service opportunities.

ID	Opportunity	Description	Baseline Recommendation
F1	Increase service frequency	This would allow more options for shorter or longer stays on islands	✓
F2	Expand service to more islands, including returning the interisland and southern loops	Offering interisland ferry service could attract more visitors, facilitate new types of trips, and enable shorter and more attractive trip lengths	✓
F3	Expand service to more gateways, non-island areas, and parks	Many visitors explore landside sites and a connection to BOHA could encourage more island visitation	
F4	Review vessel sizes by destinations and typical passenger loads	Ensure efficiency by adjusting vessel size assignments to expected numbers of passengers	
F5	Focus ferry service on Spectacle and Georges Islands	Serve the islands with the most resources and NPS programming	
F6	Ensure access for camping	Provide adequate ferry service to camping islands (Bumpkin, Grape, and Lovells)	✓
F7	Coordinate route information, trip planning, and fares with MBTA Ferries	Provide information about additional ferry services on BHI and MBTA materials	✓
F8	Provide water taxi service	This could ease challenges with sailings to the islands outside of the standard schedule	

Ticketing and Fares

The Ticketing and Fares theme encompasses all aspects of ticketing, including methods of purchase, reduced fare tickets, and the overall fare structure. Opportunities are summarized in Table 11 below.

Table 11: Ticketing and fares opportunities.

ID	Opportunity	Description	Baseline Recommendation
T1	Review fare structure to encourage more ridership and greater access to BHI across income levels	Provide more low-priced ticket options for lower-income visitors	✓
T2	Review price structure to identify price reduction options	Develop break-even scenarios and options that may reduce revenue but increase visitation	
T3	Provide booking options on Recreation.gov	Utilize the federal government's centralized travel planning and reservation platform to increase visitation	
T4	Provide mobile ticketing options	Reduce costs of paper tickets and increase ease of use for visitors	✓
T5	Shift Massachusetts resident reduced tickets to Fridays, weekends, and/or every day	Increase utilization of reduced tickets by providing during popular days	✓
T6	Provide ticket sales at Welcome Center	Increase opportunities for walk-up visitors	✓

Public Information and Partnerships

The Public Information and Partnerships theme includes opportunities to raise awareness of the islands prior to visits via marketing, during visits through programming, and during visits to other sites in Boston and the region. Partnerships with other stakeholder organizations will be critical to improving public information and programming, as they can extend the reach of messaging. Opportunities are summarized in Table 12 below.

Table 12: Public information and partnerships opportunities.

ID	Opportunity	Description	Baseline Recommendation
P1	Expand events programming through partnerships and process for determining visitation draws	Review past events and determine successful themes, marketing, and locations	
P2	Review and continue Innovation Islands mini-grant program	Update program for effectiveness and expanded visitation	
P3	Identify funding for additional marketing	Increase awareness of BHI through expanded marketing	
P4	Share marketing material regularly among Partners	Ensure signal boosts of marketing messages	✓
P5	Collaborate with BHCC to ensure marketing material is deployed effectively	Review BHCC marketing program to ensure effectiveness	✓
P6	Coordinate with other NPS Boston sites to raise awareness and interest in the BHI	Link BHI to CNY, Faneuil Hall, trails, and other sites that draw high numbers of visitors	✓
P7	Build relationships with students and families	Opportunities include youth ambassador program, schools, YMCA, universities, and other educational institutions	✓
P8	Increase marketing through physical ads and digital/social media.	Identify opportunities for physical ads on kiosks, MBTA transit, Massport facilities, and targeted digital/social media ads	✓

Administration and Funding

The Administration and Funding theme includes opportunities that partners and stakeholders should undertake to keep the ferry system and island facilities running and in good condition. The public will be minimally aware of these actions, but they will provide benefits to visitors. Opportunities are summarized in Table 13 below.

Table 13: Administration and funding opportunities.

ID	Opportunity	Description	Baseline Recommendation
A1	Complete Bureau of Transportation Statistics (BTS) National Census of Ferry Operators (NCFO)	Ensure access to Federal Highway Administration (FHWA) Ferry Boat Program funding	✓
A2	Revitalize Water Transportation subcommittee under the Operations Committee	Subcommittee should ensure progress on recommendations and review visitation numbers	✓
A3	Review service delivery model and explore options beyond the concession contract	Options include direct operations or a service contract	
A4	Ensure regular transmission of reports and data required by current contract	Article 7 of the current contract calls for monthly reporting, year-end pro-forma, and other documentation	✓
A5	Explore options for partnering with MBTA on ferry operations	Cooperative agreement may provide opportunities for reduced administrative burden and expenses	
A6	Reactivate surveys and further data analysis	Survey analysis can provide understanding of successful strategies and visitor usage	✓

Capital Investment and Infrastructure

The Capital Investment and Infrastructure theme includes opportunities to keep vessels and island facilities in a state of good repair and initiatives to make investments in beneficial projects. Opportunities are summarized in Table 14.

Table 14: Capital investment and infrastructure opportunities.

ID	Opportunity	Description	Baseline Recommendation
C1	Explore opportunities for lower-emission fuels	BHN could encourage or require concessioner to use lower-emission fuels, encourage or require more efficient vessels, or supply efficient vessels for operator use	✓
C2	Develop comprehensive asset inventory for water transportation facilities	Ensure regular capital planning and funding to keep assets in state of good repair	
C3	Identify, prioritize, and fund infrastructure improvements	Improvements may be prioritized for ADA access and resiliency	✓
C4	Engage with local and federal partners on potential funding opportunities	Ensure awareness of funding programs and plan for applications	✓
C5	Perform critical maintenance on popular islands	Ensure assets on Spectacle, Peddocks, and Georges Islands remain in state of good repair	✓

7.3 Baseline Recommendations

Along with analysis of key challenges within the system, the project team coordinated with sponsors, stakeholders, and advocates to prioritize recommended options for improvements. Opportunities were recommended for implementation in cases where actions were already underway, where resources were available to begin work, or where manageable investments would lead to significant visitation improvements. System stakeholders should consider implementation of the following Baseline Recommendations regardless of actions taken on the future system network, contract mechanism, or capital improvements. Further planning and continual cooperation between partners may be required to implement many of the following recommendations. The Partnership and the Boston Harbor advocacy community should be key assets in implementing these recommendations.

Visitor Experience

In determining priority actions under Visitor Experience, the project team referenced the NPS visitor experience cycle (Figure 15), which divides a visitor's experience to an attraction into six different phases. As a trip to the islands requires an investment of time and money on the part of a visitor, consideration of the planning, travel, orientation, experience, and departure phases is useful. BHI stakeholders should identify goals related to each phase and review current conditions against the desired state for visitors¹. Baseline recommendations for visitor experience are summarized in Table 15 below.

Figure 15: Visitor experience cycle.



Source: National Park Service.

¹ Desired Conditions Guidebook: The Heart of Visitor Use Management, 60-61

Table 15: Visitor experience baseline recommendations.

ID	Opportunity	Description	Timeframe	Further Discussion Below
V1	Increase on-island programming, including increasing self-guided programming activities	Additional variety of programmed events on the islands may draw a greater variety of visitors and increase visitation overall	Short-term	✓
V6	Increase on-island information	Provide additional interpretive resources on islands	Medium-term	
V7	Increase ADA accessibility of docks	Prioritize accessibility of Spectacle, Peddocks, and Georges Islands	Long-term	
V8	Strengthen Boston Harbor Islands connection to NPS sites	CNY, Faneuil Hall, the Black Heritage Trail, and the Freedom Trail draw high numbers of visitors	Ongoing	
V9	Develop cohesive resource for visitors looking to visit all Boston-area NPS sites	Ensure visitor awareness of the BHI when planning a trip to Boston	Medium-term	
V11	Increase food and other concession offerings on islands	This will improve the attraction of a visit to the BHI	Medium-term	
V12	Ranger presence, other programming, or audio recording on ferries for interpretation	This will improve visitors' understanding of the harbor's environment, history, and island resources	Medium-term	✓

V1 Increase on-island programming, including increasing self-guided programming activities

Progress has already begun on this recommendation, as BHN is planning to increase the self-guided programming available on the islands during the summer of 2025. Further programming, including a variety of events, may draw a greater variety of visitors and increase visitation overall.

V12 Ranger presence, other programming, or audio recording on ferries for interpretation

Project stakeholders discussed the lack of interpretation on ferries and noted that passengers would benefit from learning about multiple sites and harbor history during the journey. A ranger present on the ferry or an automated audio presentation could provide such interpretation. The style of interpretation provided may include making a ranger available on each ferry trip to answer questions. Alternatively, the park may work with the concessioner to develop a recorded audio presentation to be played over public address systems during ferry sailings, which could narrate information about the environment, the surroundings, and the islands as the ferry travels. NPS has experience providing such recorded narration on the Alcatraz Island Ferry, which features on-board recorded narration, and live narration on night tours (Figure 16). Progress has been made on this recommendation, as BHN has begun planning for on-board programming and captain announcements on certain sailings during summer 2025.

Figure 16: Alcatraz Island ferry night tour.



Source: YouTube user SeniorSoloTravel

Ferry System Routing and Service

The project team developed a comprehensive update of the ferry system routing, along with an assessment of a phased increase in service to add new gateways and islands over time. The planning process and recommendations are discussed in more detail in Section 8, Operational Alternatives. The recommendations in Table 16 below served as key principles in guiding the ferry service planning approach.

Table 16: Ferry system routing and service baseline recommendations.

ID	Opportunity	Description	Timeframe	Further Discussion Below
F1	Increase service frequency	This would allow more options for shorter or longer stays on islands	Medium-term	✓
F2	Expand service to more islands, including returning the interisland and southern loops	Offering interisland ferry service could attract more visitors, facilitate new types of trips, and enable shorter and more attractive trip lengths	Medium-term	✓
F6	Ensure access for camping	Provide adequate ferry service to camping islands (Bumpkin, Grape, and Lovells)	Medium-term	✓
F7	Coordinate route information, trip planning, and fares with MBTA Ferries	Provide information about additional ferry services on BHI and MBTA materials	Medium-term	✓

F1 Increase service frequency, allowing more options for shorter or longer stays on islands

Section 8.4 Recommended Alternatives discusses recommended increased ferry service. An updated system would provide five trips from Long Wharf to Spectacle, four trips from Long Wharf to Georges, four trips on the Northern Interisland Route (serving Spectacle, Georges, and Peddocks), and three trips on the Southern Interisland Route (serving Georges, Peddocks, Bumpkin, and Grape from Hewitt's Cove).

F2 Expand service to more islands, including returning the interisland and southern loops

Service to Bumpkin and Grape islands, along with new iterations of the Northern Interisland and Southern Interisland routes, is discussed in Section 8.4.

F6 Ensure access for camping

Ferry service is recommended to continue to Peddocks Island, where camping is currently permitted. Section 8.4 recommends returning service to Bumpkin and Grape islands, where camping is not yet restored.

F7 Coordinate route information, trip planning, and fares with MBTA Ferries

MBTA representatives stated that coordinating information and trip planning resources with NPS and BHN was desirable. The agency's website policy limits links and other information to outside entities, but there is flexibility to provide more marketing collateral and information at ferry terminals. BHN is planning to market the BHI ferry system on MBTA vessels.

Ticketing and Fares

The project team identified several baseline recommendations, summarized in Table 17 below, related to ticketing and fares to streamline the ticket purchasing process and expand reduced fare options for visitors.

Table 17: Ticketing and fares baseline recommendations.

ID	Opportunity	Description	Timeframe	Further Discussion Below
T1	Review fare structure to encourage more ridership and greater access to BHI across income levels	Provide more low-priced ticket options for lower-income visitors	Medium-term	✓
T4	Provide mobile ticketing options	Reduce costs of paper tickets and increase ease of use for visitors	Medium-term	
T5	Shift Massachusetts resident reduced tickets to Fridays, weekends, and/or every day	Increase utilization of reduced tickets by providing during popular days	Short-term	✓
T6	Provide ticket sales at Welcome Center	Increase opportunities for walk-up visitors	Medium-term	✓

T1 Review fare structure to encourage more ridership and greater access to BHI across income levels

BHN and the Partnership have stated a longstanding interest in ensuring access to the islands across income levels. Section 10, Economic Analysis provides options for a future fare and revenue model to support an updated ferry system.

T5 Shift Massachusetts resident reduced tickets to Fridays, weekends, and/or every day

State funding helped to provide reduced price tickets two days a week in 2024 during Tuesdays and Wednesdays in the spring and Thursdays and Fridays for the rest of the season. Expanding the availability of this discount would provide flexibility for residents and encourage greater ridership. As of 2025, progress has been made on this recommendation, as the resident fare is now available Monday through Friday for the entire season.

T6 Provide ticket sales at Welcome Center

Stakeholders should explore options to staff the Welcome Center with ferry ticket sales agents. The Welcome Center is an asset for education and discovery of the islands but does not facilitate access to them. Providing ticket sales at this prominent location could encourage more walk-up bookings. As staffing has been a challenge for the Welcome Center, NPS may offer space in the Welcome Center as a concession to the ferry concessioner for ticket sales.

Public Information and Partnerships

It is key for marketing for the islands to be sensitive to the fact that locals have different needs, interests, and time constraints from tourists. Table 18 below summarizes identified baseline recommendations related to public information and partnerships.

Table 18: Public information and partnerships baseline recommendations.

ID	Opportunity	Description	Timeframe	Further Discussion Below
P4	Share marketing material regularly among Partners	Ensure signal boosts of marketing messages	Ongoing	✓
P5	Collaborate with BHCC to ensure marketing material is deployed effectively	Review BHCC marketing program to ensure effectiveness	Ongoing	
P6	Coordinate with other NPS Boston sites to raise awareness and interest in the BHI	Link BHI to CNY, Faneuil Hall, trails, and other sites that draw high numbers of visitors	Ongoing	
P7	Build relationships with students and families	Opportunities include youth ambassador program, schools, YMCA, universities, and other educational institutions	Medium-term	
P8	Increase marketing through physical ads and digital/social media.	Identify opportunities for physical ads on kiosks, MBTA transit, Massport facilities, and targeted digital/social media ads	Medium-term	✓

P4 Share marketing material regularly among Partners and ensure signal boosts

The ferry concession contract includes provisions for coordination of marketing materials between BHN and the concessioner. BHN should coordinate further through NPS, DCR, other members of the Partnership, and tourism promotion organizations to share upcoming events and associated messaging.

P8 Increase marketing through physical ads (kiosks, MBTA) and digital/social media.

BHN has undertaken physical marketing on MBTA in recent years, including rail, bus, and ferry services. Further options including street advertising and targeted digital/social media marketing should be explored as well. Improved marketing efforts are ongoing as of 2025, including new physical marketing at Boston Logan International Airport.

Administration and Funding

The project team identified several baseline recommendations, summarized in Table 19 below, related to administration and funding to further explore data from the BHI ferry service and potential funding opportunities.

Table 19: Administration and funding baseline recommendations.

ID	Opportunity	Description	Timeframe	Further Discussion Below
A1	Complete BTS NCFO	Ensure access to FHWA Ferry Boat Program funding	Short-term	✓
A2	Revitalize Water Transportation subcommittee under the Operations Committee	Subcommittee should ensure progress on recommendations and review visitation numbers	Short-term	
A4	Ensure regular transmission of reports and data required by current contract	Article 7 in the current contract calls for monthly reporting, year-end pro-forma, and other documentation	Short-term	
A6	Reactivate surveys and further data analysis	Survey analysis can provide understanding of successful strategies and visitor usage	Medium-term	

A1 Complete BTS NCFO to ensure access to funding

The project team and sponsors have discussed the need to complete the BTS NCFO extensively. Completion of the census, collected every two years, will allow the NPS to access FHWA Ferry Boat Program (FBP) funding. Stakeholders have participated in information sessions for the 2024 NCFO, and BHCC plans to complete the submission by the deadline of August 1, 2025. More information about the NCFO and FBP is available in Appendix C: Ferry Boat Program Funding Estimate Memo.

Capital Investment and Infrastructure

The project team identified several baseline recommendations, summarized in Table 20 below, related to capital investment and infrastructure to ensure infrastructure is in good repair and meets the needs of all visitors as well as opportunities to fund improvements to the system as a whole.

Table 20: Capital investment and infrastructure baseline recommendations.

ID	Opportunity	Description	Timeframe	Further Discussion Below
C1	Explore opportunities for lower-emission fuels	BHN could encourage or require concessioner to use lower-emission fuels, encourage or require more efficient vessels, or supply efficient vessels for operator use	Long-term	✓
C3	Identify, prioritize, and fund infrastructure improvements	Improvements may be prioritized for ADA access and resiliency	Long-term	
C4	Engage with local and federal partners on potential funding opportunities	Ensure awareness of funding programs and plan for applications	Ongoing	✓
C5	Perform critical maintenance on popular islands	Ensure assets on Spectacle, Peddocks, and Georges Islands remain in state of good repair	Ongoing	

C1 Explore opportunities for more sustainable ferry operations through lower-emission fuels

Stakeholders have discussed the desire to reduce pollutants from the ferry system and explore options to lower emissions. There are multiple options to improve the sustainability of ferry operations. Under the current concession arrangement, BHN could encourage or require the concessioner to use lower-emission fuels or more efficient vessels than those currently operated. Encouragement could be effectuated by means of financial incentives. Further study would be needed to determine if potential concessioners would accept such requirements or encouragements. To ensure more sustainable operations, stakeholders should explore options for acquiring new or newer vessels that utilize lower-emission engines. These vessels could then be supplied to the concessioner for operations and maintenance. More discussion of emission reduction options can be found in Section 11.1, Emissions Reduction.

C4 Engage with local and federal partners on potential funding opportunities

Stakeholders and members of the Partnership should continue to share information about opportunities to apply to federal programs for funding support. More information on potential programs is available in Section 12.2, Funding Opportunities.

8 Operational Alternatives

This section evaluates ferry routes for overall attractiveness, efficiency, and operational effectiveness, and proposes a refreshed route system based on findings. The team explored options to increase ferry frequency, increased options for length of time spent on the islands, identify optimal vessel sizes for routes, and review opportunities for interisland ferry routes. This analysis, alongside a better understanding of vessel size needs, allows BHI partners to determine future vessel needs for the proposed route system.

8.1 Gateway Analysis

The team identified seven potential locations to serve as origins for ferry service: Charlestown Navy Yard in Charlestown, Boston; Long Wharf in Downtown, Boston; Commonwealth Pier in Seaport, Boston; EDIC Dock in South Boston; Castle Island/Fort Independence in South Boston; Squantum Point in Quincy; and Hewitt's Cove in Hingham. The team analyzed these gateways based on a variety of factors including public transit accessibility, pedestrian accessibility, parking facilities, existing ferry services, nearby amenities and attractions, primary audiences served, and distance to closest island. The team also considered that most current visitors live in the Greater Boston area, many of whom are residents of the South Shore. As a result, accessing the islands from the South Shore and attracting new populations and visitor types were prioritized in the analysis.

Based on this analysis, the team determined that all the gateways could provide value to the ferry service, except for EDIC Dock, which was determined to not add substantial value due to its proximity to Commonwealth Pier, its lack of nearby amenities, and its lack of transit and pedestrian accessibility. However, EDIC Dock could still serve as a potential compromise gateway if there are unforeseen barriers to operating out of Commonwealth Pier in the future. Long Wharf and Hewitt's Cove were chosen as priority gateways given their transportation facilities, nearby amenities and attractions, and their ability to form a system that serves a wide breadth of Massachusetts populations. Long Wharf is very transit and pedestrian accessible and serves as an ideal gateway for both tourists and residents of neighborhoods of the Greater Boston Area that are connected to the MBTA. Hewitt's Cove's extensive parking facilities and location on the South Shore make it an attractive gateway for South Shore residents, as well as tourists and Greater Boston area residents who wish to access the dock via private vehicle.

8.2 Destination Analysis

The team analyzed thirteen islands as potential destinations for ferry service: Spectacle, Georges, Peddocks, Long, Cathleen Stone, Lovells, Gallops, Little Brewster, Grape, Bumpkin, Rainsford, Great Brewster, and The Graves Islands. These islands were considered because they have previously had or currently have ferry service. The islands were analyzed based on dock condition, visitation, potential activities, amenities, historical and cultural resources, other attractive factors for visitors, and future investment plans.

Based on this analysis, Rainsford, Great Brewster, and The Graves were excluded from further consideration. Some islands, such as Lovells, were given strong consideration, but were not prioritized for short-term operation due to uncertainties surrounding timelines for infrastructure maintenance and improvement. Spectacle, Georges, Peddocks, Grape, and Bumpkin Islands were prioritized due to their visitor attractiveness, camping amenities on Peddocks, Grape, and Bumpkin, and overall infrastructure condition.

8.3 *Phasing*

The team identified a three-phased approach for route alternatives based on the priorities from the gateway and destinations analysis. The alternatives recommended in the first phase would occur over the next one to five years, those of the second phase would occur in five to ten years, while those of the third phase would occur in ten or more years. The three-phased approach is summarized in Table 21 below. D's indicate direct service between the corresponding gateway and island, C's indicate connection via a connector ferry, and X's indicate no service.



Table 21: Phasing of analyzed gateways and islands.

Gateways/Island		Phase One (1-5 years)					Phase Two (5-10 years)			Phase Three (10+ years)	
		Spectacle	Georges	Peddocks	Grape	Bumpkin	Cathleen Stone	Lovells	Little Brewster	Long	Gallops
Phase One (1-5 years)	Long Wharf	D	D	C	C	C	C	C	D	X	C
	Hewitt's Cove	X	C	C	C	C	X	X	D	X	X
Phase Two (5-10 years)	Commonwealth Pier	D	D	X	X	X	X	X	D	X	X
	Charlestown Navy Yard	D	X	X	X	X	X	X	D	X	X
	Squantum	D	C	C	C	C	X	C	X	X	C
Phase Three (10+ years)	Castle Island	X	X	X	X	X	X	X	X	X	X

Key

- D: direct service between the corresponding gateway and island
- C: connection via a connector ferry
- X: no service

Phase One would begin with Long Wharf and Hewitt's Cove as the ferry service gateways and would serve Spectacle, Georges, Peddocks, Grape, and Bumpkin Islands. In Phase Two, Commonwealth Pier, Charlestown Navy Yard, and Squantum Point would be added to the service as gateways, and Cathleen Stone, Lovells, and Little Brewster Islands would be added as destinations. Finally, Phase Three would include the addition of Gallops Islands as a destination. The team decided during the phasing process that service out of Castle Island and service to Long Island were not feasible.

8.4 Recommended Alternatives

The team developed four routes (Figure 17) that provide service between the Phase One gateways and destinations with schedules and estimated operating costs. Routes and schedules were constructed to add or expand service for Boston and South Shore day trippers and campers and tourists seeking an outdoor or historic experience. The routes and schedules were also constructed to give ample options and flexibility for visitors out of both Hingham and Boston while also remaining affordable for operators. A proposed schedule for each route is available in Appendix B: Operational Alternatives Schedules. The project team ensured the different schedules provided buffer time in case of any unforeseen variables that could cause delays and align such that there were no conflicts at ports with other vessels. If implemented, it is recommended the schedules are further refined to ensure boat arrivals at Long Wharf and Hewitt's Cove do not conflict with other dock users' arrivals. Additionally, load and unload times for each route were based on historic and current load and unload times for similar routes to BHI. Table 22 below provides a summary of the proposed ferry service.

Figure 17: Proposed ferry service routes map.



Table 22: Proposed ferry system characteristics.

Characteristics	All Routes
Operating hours	8:25AM – 5:30PM
Number of routes	4
Number of vessels used	4
Operating cost per year	\$906,000
Vessel capacities	Two 300 passenger Two 149 passenger
Total round trips:	
<i>Long Wharf to Spectacle</i>	5
<i>Long Wharf to Georges</i>	4
<i>Northern Interisland</i>	4
<i>Southern Interisland</i>	3
Max daily passengers	3,143
Max annual passengers	289,629

Long Wharf to Spectacle Island Direct Ferry Route

The proposed Long Wharf (LW) to Spectacle Island direct route (Figure 18) is intended to serve locals and tourists in or near Boston who want to visit Spectacle Island for a day, or who want to connect to other islands to have a multi-island trip and/or camp overnight on Peddocks Island via the Northern Interisland route. The Long Wharf to Spectacle route remains relatively unchanged from the current service to Spectacle Island; however, the proposed schedule (Table 42 in Appendix B) starts earlier than the current ferry during peak season, which results in an extra trip per day. This provides more options for visitors with the amount of time they can spend on each island, which will allow more flexibility in planning their visits to the island and will make multi-island trips more feasible when combined with the proposed interisland routes. This also increases the potential daily visitation capacity of Spectacle Island, with this route alone accommodating up to 1,200 passengers a day when using a 300-passenger vessel. Table 23 summarizes the proposed Long Wharf to Spectacle Island direct ferry route characteristics.

Figure 18: Long Wharf to Spectacle Island direct ferry route.



Table 23: Long Wharf to Spectacle Island direct ferry route characteristics.

Characteristics	Long Wharf to Spectacle Island
Operating hours	8:30AM – 5:30PM
Number of vessels used	1
Operating cost per year	\$280,000
Load/unload time	30 mins
Round trip time (hours)	2:00
Total round trips	5
Wait time for next trip (hours)	2:00
Max daily passengers (300 passenger capacity)	1,200
Time on Spectacle Island (hours)	2:15; 4:15; 6:15; 8:00

Long Wharf to Georges Island Direct Ferry Route

The proposed Long Wharf (LW) to Georges Island Direct Ferry (Figure 19) is intended to serve locals and tourists in or near Boston who want to visit Georges Island for a day, or who want to connect to other islands for a multi-island trip and/or camp overnight on Peddocks Island via the Northern Interisland route. Similar to the Long Wharf to Spectacle direct ferry, this route remains relatively unchanged from the current service to Georges Island offered out of Long Wharf, but with an earlier start and an extra trip per day (Table 43 in Appendix B). This will allow visitors more flexibility in planning their visits to the island and will make multi-island trips more feasible when combined with the proposed Northern and Southern Interisland Loops. This also increases the potential daily visitation capacity of Georges Island, with this route alone accommodating up to 900 passengers a day when using a 300-passenger vessel. Table 24 summarizes the proposed Long Wharf to Georges Island direct ferry route characteristics.

Figure 19: Long Wharf to Georges Island direct ferry route map.



Table 24: Long Wharf to Georges Island direct ferry route characteristics.

Characteristics	Long Wharf to Georges Island
Operating hours	9:00AM – 4:45PM
Number of vessels used	1
Operating cost per year	\$187,000
Load/unload time	15 mins
Round trip time (hours)	2:00
Total round trips	4
Wait time for next trip (hours)	2:00
Max daily passengers (300 passenger capacity)	900
Time on Georges Island (hours)	2:15; 4:15; 6:15

Southern Interisland Loop Route

The Southern Interisland Loop (Figure 20) serves both campers and day-trippers out of the South Shore through a series of three varied runs as described in Table 25, Table 26, and Table 27. In combination with other proposed ferries, this route provides many options for different types of visitors; this is especially valuable as this system poises Hewitt's Cove as a gateway primarily accessed by visitors with private vehicles, which will provide families with camping gear ample options and flexibility. This route would run Thursday through Sunday in the fall and spring, and seven days a week during the summer. Table 28 summarizes the proposed Southern Interisland route characteristics.

Table 25: Southern Interisland loop first route of the day.

Hingham (Depart)	Georges (Arrive)	Georges (Depart)	Peddocks (Arrive)	Peddocks (Depart)	Bumpkin (Arrive)	Bumpkin (Depart)	Grape (Arrive)	Grape (Depart)	Hingham (Arrive)
8:25	9:20	9:30	9:50	10:00	10:20	10:30	10:50	11:00	11:10

The first run of the day brings visitors to Georges Island early in the morning, which allows those visitors the options to spend the day on Georges or use the Northern Interisland Loop to do a multi-island trip. After departing Georges Island, the ferry stops at the three camping islands to pick up campers from the previous night who need to return to Hingham.

Table 26: Southern Interisland loop second route of the day.

Hingham (Depart)	Peddocks (Arrive)	Peddocks (Depart)	Georges (Arrive)	Georges (Depart)	Peddocks (Arrive)	Peddocks (Depart)	Hingham (Arrive)
11:25	12:00	12:25	12:45	13:00	13:20	13:35	14:10

The second run of the day brings visitors to Peddocks and Georges Islands and brings Boston-originating campers on Peddocks back to Georges, where they will be able to take the Long Wharf to Georges Direct Ferry back to Boston. This run also connects Boston-originating campers who spent the morning on Georges Island to their final camping destination on Peddocks Island and brings visitors who spent the morning on Georges or Peddocks Islands back to Hingham.

Table 27: Southern Interisland loop third route of the day.

Hingham (Depart)	Grape (Arrive)	Grape (Depart)	Bumpkin (Arrive)	Bumpkin (Depart)	Peddocks (Arrive)	Peddocks (Depart)	Georges (Arrive)	Georges (Depart)	Hingham (Arrive)
14:25	14:35	14:45	15:05	15:15	15:35	15:55	16:15	16:25	17:20

The final run of the day drops Hingham-originating campers off at Grape, Bumpkin, and Peddocks Islands, then heads to Georges Island to pick up day-trippers who need to return home to Hingham.

Figure 20: Southern Interisland loop route map.



Table 28: Southern Interisland loop ferry route characteristics.

Characteristics	Southern Interisland Loop
Operating hours	8:25 AM – 5:20 PM
Number of vessels used	1
Operating cost per year	\$268,000
Load/unload time	10-15 mins
Round trip time (hours)	2:45; 2:55
Total round trips	3
Wait time for next trip (hours)	3:00
Max daily passengers (149 passenger capacity)	447
Time on Grape Island (hours)	3:55
Time on Bumpkin Island (hours)	4:55
Time on Peddocks Island (hours)	1:35; 2:25; 2:35; 3:45; 5:55; 6:15
Time on Georges Island (hours)	3:40; 7:05

Northern Interisland Loop Route

Stakeholders indicated there is a strong desire among visitors to bring back an interisland ferry. The proposed Northern Interisland Loop (Figure 21) will connect Spectacle, Georges, and Peddocks Islands. This route is currently built to originate out of Long Wharf, although it is not planned to be an option for getting to or from Long Wharf; from a visitor perspective, it will serve as a shuttle service between the islands. In the current proposed schedule (Table 45 in Appendix B) the Northern Loop circulates between the three islands four times a day, which allows Boston visitors to visit multiple islands in a single day, or to go camping on Peddocks Island after spending time on Spectacle and/or Georges Islands during the day. This improves the current model of only direct routes out of Boston and connects Boston visitors to camping opportunities on the islands. It also improves current service by opening access to Spectacle Island for visitors originating in Hingham, who will be able to get on the Northern Interisland route on Georges or Peddocks. Table 29 summarizes the proposed Northern Interisland route characteristics.

Figure 21: Northern Interisland loop route map.



Table 29: Northern Interisland loop route characteristics.

Characteristics	Northern Interisland Loop
Operating hours	10:00AM – 5:25PM
Number of vessels used	1
Operating cost per year	\$171,000
Load/unload time	10-15 mins
Round trip time (hours)	1:20
Total round trips	4
Wait time for next trip (hours)	1:30
Max daily passengers (149 passenger capacity)	596
Time on Spectacle Island (hours)	1:40, 2:05, 3:10, 3:35, 5:05
Time on Georges Island (hours)	1:40, 2:05, 3:10, 3:35, 5:05
Time on Peddocks Island (hours)	1:40, 1:55, 2:05, 3:25, 3:35, 5:05

Interisland Trip Examples

This section examines potential interisland trip combinations for day-trippers and campers from Boston and Hingham. It utilizes a combination of the proposed routes above and provides an example itinerary with route taken and arrival/departure times for each interisland trip combination.

Boston Day-Tripper

By utilizing a combination of the direct routes out of Long Wharf and the Northern Interisland Loop, day-trippers can create many different experiences on the islands; the Northern Interisland Loop is proposed to be frequent enough that a visitor could spend time on a combination of two islands or spend a day hopping between all three of the served islands. For example, a visitor could take the first Long Wharf to Spectacle Island Direct ferry of the day, spend 1.5 hours on Spectacle Island, then board the Northern Interisland Loop at 10:40 AM, then spend 1 hour 40 mins on Georges Island before taking the Northern Interisland Loop again at 12:45 PM to arrive on Peddocks Island at 12:55 PM, then spend just under 2 hours on Peddocks before taking the Northern Interisland Loop once more at 2:50 PM to return to Spectacle Island at 3:15 PM and finally returning to Boston on the Long Wharf to Spectacle Island Direct Ferry. Between the three ferries serving Long Wharf, Harbor Island visitors can create many different combinations of islands for day-trips that suit their wants. Table 30 below provides an example interisland trip itinerary for a day-tripper originating from Boston.

Table 30: Example interisland day-trip itinerary from Long Wharf to Spectacle, Georges, and Peddocks Islands.

Itinerary	Depart LW	Arrive Spectacle	Depart Spectacle	Arrive Georges	Depart Georges	Arrive Peddocks	Depart Peddocks	Arrive Spectacle	Depart Spectacle	Arrive LW
Route	LW – Spectacle Direct	LW – Spectacle Direct	Northern Loop	Northern Loop	Northern Loop	Northern Loop	Northern Loop	Northern Loop	LW – Spectacle Direct	LW – Spectacle Direct
Time	8:30 AM	9:00 AM	10:40 AM	11:05 AM	12:45 PM	12:55 PM	2:50 PM	3:15 PM	5:00 PM	5:30 PM

Boston Camper

The proposed routes and schedules present significant improvements to campers utilizing Long Wharf as their origin compared to current service. Like day-trippers, visitors have options to start their day on either Spectacle Island or Georges Island before taking the either Northern Interisland Loop out of Georges Island to arrive at Peddocks Island at 11:25 AM, 12:55 PM, 2:25 PM, or 4:20 PM, or the Southern Interisland Loop out of Georges Island to arrive at Peddocks Island at 1:20 PM. After spending the night, campers can then use any of the departures of the Northern Interisland Loop or the Southern Interisland Loop to return to Georges Island or Spectacle Island, then use the respective direct ferry to return to Long Wharf. Table 31 below provides an example interisland trip itinerary for a camper originating from Boston.

Table 31: Example interisland camping trip itinerary from Long Wharf to Spectacle, Georges, and Peddocks Islands.

Itinerary	Depart LW	Arrive Georges	Depart Georges	Arrive Peddocks	Depart Peddocks (Next day)	Arrive Spectacle	Depart Spectacle	Arrive LW
Route	LW – Georges Direct	LW – Georges Direct	Northern Loop	Northern Loop	Northern Loop	Northern Loop	LW – Spectacle Direct	LW – Spectacle Direct
Time	2:00 PM	2:45 PM	4:10 PM	4:20 PM	11:35 AM	12:00 PM	1:15 PM	2:45 PM

Hingham Day-Tripper

The combination of the Southern and Northern Interisland Loops also provides visitors out of Hingham several options for multi-island day-trips. If visitors take the first departure of the Southern Interisland Loop out of Hingham at 8:25 and disembark on Georges Island at 9:20 AM or Peddocks Island at 9:50 AM, the frequency of the Northern Interisland also provides them with the flexibility to visit all three islands served by the Northern Loop before departing Georges Island on the third run of the Southern Interisland Loop and returning to Hingham at 5:20 PM. Visitors wanting a shorter single-day multi-island experience can also utilize the second run of the Southern Loop and the Northern Loop to have a two-island day-trip between Georges and Peddocks. Table 32 below provides an example interisland trip itinerary for a day-tripper originating from Hingham.

Table 32: Example interisland day-trip itinerary from Hingham to Spectacle, Georges, and Peddocks Islands.

Itinerary	Depart Hingham	Arrive Georges	Depart Georges	Arrive Peddocks	Depart Peddocks	Arrive Spectacle	Depart Spectacle	Arrive Georges	Depart Georges	Arrive Hingham
Route	Southern Loop	Southern Loop	Northern Loop	Northern Loop	Northern Loop	Northern Loop	Northern Loop	Northern Loop	Southern Loop	Southern Loop
Time	8:25 AM	9:20 AM	11:15 AM	11:25 AM	1:05 PM	1:30 PM	3:35 PM	4:00 PM	4:25 PM	5:20 PM

Hingham Camper

If a visitor out of Hingham is camping on Peddocks island, they can opt to take the first or second Southern Loop run and utilize the same flexibility options as the day-trippers above while still finishing their day on Peddocks Island before the end of ferry service. Visitors with a campsite reserved on Grape or Bumpkin Islands could potentially create multi-island itineraries, but it will require stopping back in Hingham. Table 33 below provides an example interisland trip itinerary for a camper originating from Hingham.

Table 33: Example interisland camping trip itinerary from Hingham to Georges and Peddocks Islands.

Itinerary	Depart Hingham	Arrive Georges	Depart Georges	Arrive Peddocks	Depart Peddocks (Next day)	Arrive Hingham
Route	Southern Loop	Southern Loop	Northern Loop	Northern Loop	Southern Loop	Southern Loop
Time	11:25 AM	12:00 PM	2:15 PM	2:25 PM	1:35 PM	2:10 PM

Pilot Ferry Services and Special Event Opportunities

It is also recommended that the Boston Harbor Islands Partnership consider exploring additional routes outside of the four recommended routes through pilot programs, such as one-off special event programming. These could take the form of one-night cruises, seasonal events, educational experiences, or any other attractive events that will allow visitors to explore different harbor ferry experiences. Special event routes and pilot programs paired with ample marketing and information sharing could help gauge public interest in additional routes that were not examined in this analysis and would help to inform future planning.

9 Service Delivery

The BHI ferry service is currently operated through BHN under a concession contract by a single operator, BHCC. Over its history, the ferry service has been provided by multiple concessioners under contract to DCR predecessor agencies. The Boston Harbor Island Alliance, BHN's predecessor organization, started managing the ferry service contract in 2005.² Service delivery options for the BHI ferry service have been studied in past planning efforts, including the 2001 Boston Harbor National Park Service Sites Alternative Transportation Systems Evaluation Report, which recommended that the Partnership maintain operations under a concession, which could grow to multiple operators as ferry service expanded.³ The BHN Water Transportation Study, conducted from 2017 through 2019, examined best practices for park ferry service and assisted in development and solicitation of the current concession contract. The study concluded that "the concessionaire agreement is the most common form of contracting relationship," although other arrangements are available.

Under the current study, project stakeholders expressed an interest in examining the following issues as they relate to ferry service delivery:

- MBTA participation: Could MBTA solicit, manage, or otherwise support the BHI system?
- NPS vessel ownership: Could an NPS-owned vessel be utilized through this mechanism?
- Incorporation of FBP funds: Could FBP funds be spent to support ferry operations?

9.1 Contract Mechanism Options

Transportation services operate in the NPS under several different business models. The existing ferry system is operated through BHN under a concession contract. Should the ferry service delivery model change, the following represent potential options, regardless of whether operations responsibility shifts to NPS, MBTA, or remains with BHN. The project team analyzed each of these four business models and assessed their suitability against the three issues above.

Cooperative Agreement

Under a Cooperative Agreement, an existing public transit agency provides vessels and hires crew members, facilitating lower operational costs and enhanced reliability by using shared resources. BHN, NPS, or other entity would provide funding to the operating partner to cover operating costs, along with other assets that may be available. Cooperative Agreements have been successful in providing bus transit service for multiple national parks, although very few use the arrangement for ferry service. Cooperative Agreements rely on available capacity on the part of the agency to perform NPS services along with its regular service schedule.

- MBTA participation: MBTA operation of the ferry system under a Cooperative Agreement would present several challenges, including provision of sufficient vessels, staffing, and funding. The MBTA ferry service is operated by a combination of MBTA-owned and contractor-owned vessels which are dedicated to the commuter service. As a transit agency, MBTA would need to conduct an equity analysis prior to initiating a new service, which could raise concerns around high fares necessary to cover the cost of operations.

² Ferries to the Boston Harbor Islands State and National Park: Strategy for Water Transportation Service, 14

³ [Boston Harbor National Park Service Sites Alternative Transportation Systems Evaluation Report](#), 6-9 – 6-12

- NPS vessel ownership: An NPS-owned vessel could be provided for utilization through a lease to the operator under a Cooperative Agreement.
- Incorporation of FBP funds: FBP funds could be spent to support ferry operations under a Cooperative Agreement.

Concession Contract

In a Concession Contract, a private concessioner operates the system under guidelines set by NPS, paying a franchise fee or other payment and following approved fare structures. This model is most common for NPS ferry services. While it allows for quicker implementation and reduces administrative burdens, it can also result in higher costs and lower control over service quality and performance. This is the model used currently to deliver the BHI ferry service, however BHN is the contract owner and manager. NPS staff stated that past experience and study demonstrated that NPS would not be the optimal contract owner due to challenges with the agency's contracting process.

- MBTA participation: MBTA operation of the ferry system under a Concession Contract would prove difficult. As the MBTA does not own sufficient vessels to operate the system itself, it would need to initiate its own concession. Since the islands are managed by DCR and not MBTA, the former agency would be better positioned to solicit an operator under a concession contract.
- NPS vessel ownership: An NPS-owned vessel could be provided for utilization through a concession to the operator under a Concession Contract. This arrangement has been used by the Gulf Islands National Seashore for the Turtle Runner and Pelican Perch vessels.
- Incorporation of FBP funds: FBP funds could be spent only by a public entity to support ferry operations under a Concession Contract.

Service Contract

Under a Service Contract, NPS hires a private contractor to operate the system based on specified needs outlined in an RFP. The Lake Powell Ferry at Glen Canyon National Recreation Area is the only example of the use of this model for ferry service within NPS. Advantages include faster implementation and greater flexibility, but this model typically comes with higher costs and reduced control over service quality.

- MBTA participation: MBTA operation of the ferry system under a Service Contract would present the same challenges as under a Cooperative Agreement. MBTA currently operates its ferry service under a service contract and would need to obtain BHI ferry services in the same manner.
- NPS vessel ownership: An NPS-owned vessel could be provided for utilization through a Service Contract to the operator.
- Incorporation of FBP funds: FBP funds could be spent only by a public entity to support ferry operations under a Concession Contract.

NPS Owned and Operated

This model would require NPS to purchase and maintain the vessels, while employing and managing the service's workforce. There are a few examples of such a ferry service within the NPS system, including the MV Ranger III service provided by Isle Royale National Park (ISRO). While it allows for greater control over operations, this model faces challenges such as a slower ramp-up period and administrative burden.

- MBTA participation: MBTA would not be able to participate in an NPS Owned and Operated ferry system.

- NPS vessel ownership: NPS-owned vessels would be necessary for an NPS Owned and Operated ferry system. Leased vessels may also be an option. Under this model, all vessels need to be under the ownership or lease of NPS.
- Incorporation of FBP funds: FBP funds could be spent to support ferry operations under an NPS Owned and Operated system.

9.2 *Recommendations*

Through discussions with project stakeholders and analysis of the ferry system's history, the project team determined that the Partnership, operating through BHN, should remain as the ferry service owner and manager through its concession contracting role. NPS would face challenges in managing the service due to the constraints of its contracting process. Maintaining operations through BHN is preferable to DCR due to the organization's flexibility.

In reviewing the service delivery options, the project team determined that a Service Contract or NPS ownership of the system would require substantial upfront funding, both for operating and capital needs. A Cooperative Agreement would not be feasible as there is a lack of a public sector partner with spare assets available to operate the ferry service. Thus, the current service delivery model remains the best option. The Concession Contract is the most feasible service delivery method, however, there are opportunities to improve management of the contract through oversight of performance and review of data called for in the contract. Additionally, the General Management Plan supports the continual operation of the ferry system "by private boat operators under agreement to the Partnership or its member agencies".⁴

⁴ [Boston Harbor Islands: A National Park Area General Management Plan](#), 76

10 Economic Analysis

This economic analysis includes a general examination of BOHA's ferry revenues and costs over the ten years from 2014 to 2024 to provide insights on ticket purchase trends, break-even fare prices, visitor sensitivity to price changes, optimal pricing schemes, and customer behavior. This analysis provides decision-makers with options to maximize the quantity of ferry ticket purchases and minimize costs.

For this analysis, BHN and BHCC provided data on ticket sales, revenues, and direct and indirect costs from 2014 to 2024. As there are gaps in the data received, some of the data is estimated or averaged across years to approximate costs for missing data points. BHCC estimated direct and indirect costs based on a percentage of historical revenue data for earlier years where records were not readily available due to the service being under different ownership. BHN provided data for subsidized ticket purchases for recent years, including information on the type of ticket, riders per purchase, full ticket price, subsidy amount, and the amount paid by the customer. The analysis of this report included the organization and cleaning of these datasets. The following sections provide insights based on the data provided.

10.1 Demand Analysis

Demand, in economic terms, measures the quantity desired at a given price as evidenced by purchases made of a good or service over time. This demand analysis reveals patterns in BHI ferry ridership data and provides the baseline measure for conducting an optimization analysis to determine optimal price and the quantity expected.

Figure 22: Quantity Demanded.

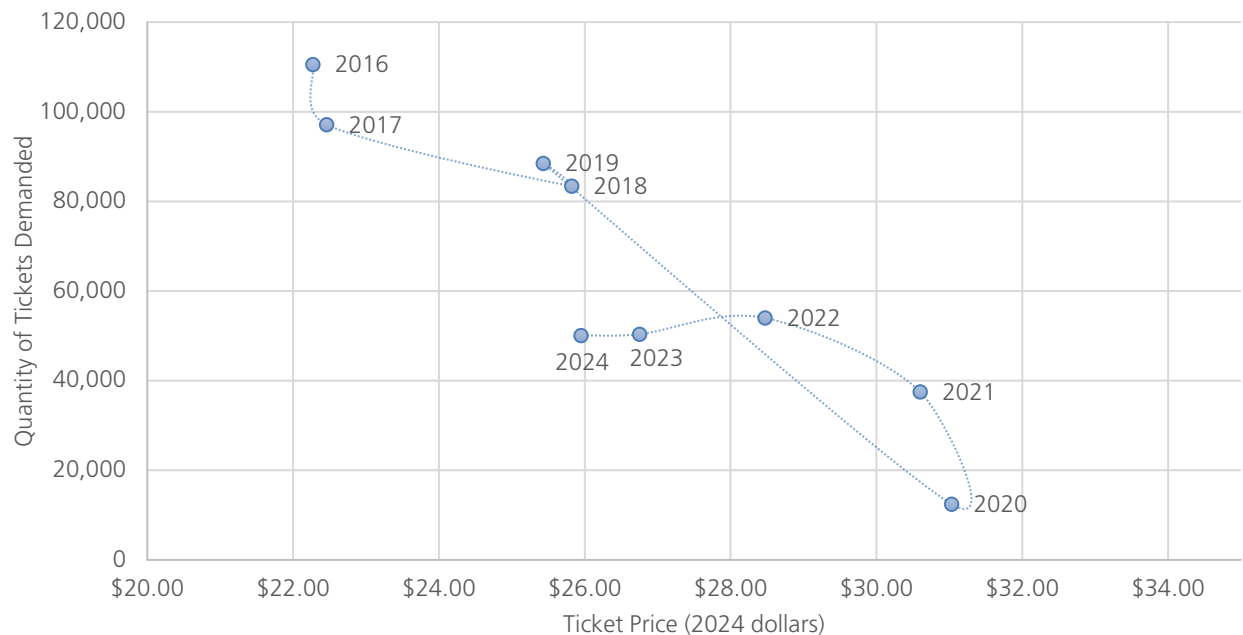
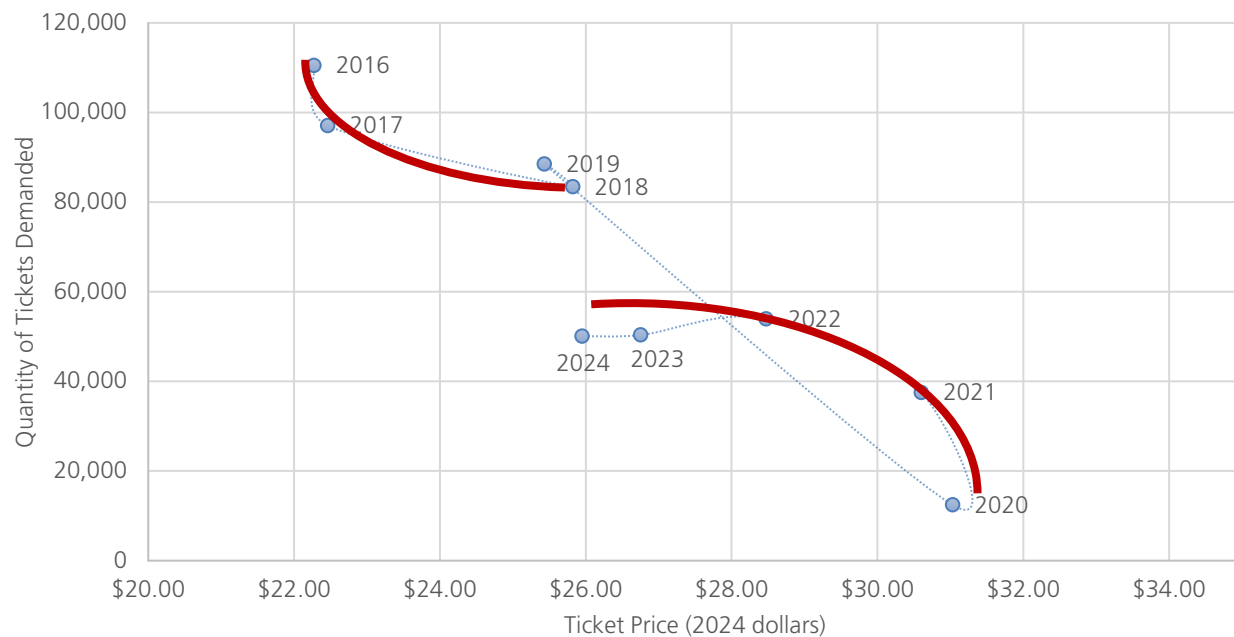


Figure 22 plots the quantity of tickets sold and the price for each year in the dataset. The project team noted three distinct patterns in the data (Figure 23):

1. A curve that captures 2016-2019
2. A declining line between 2019 and 2020, charting an economic shock
3. A curve that captures 2020-2024 and mirrors the 2016-2019 arc

Observed together, these patterns indicate a shift in demand behavior from the initial period of the data (2016-2019) to the more recent period (2021-2024) with a shock, or unpredictable event, in 2020. The impacts of the COVID-19 pandemic on normal customer behavior are well-documented; the team therefore attributed the shock to this event. Ticket quantity rose steadily as the economy recovered from the pandemic but seems to have leveled off at around 50,000 tickets. As a result, current customer behavior is dissimilar to pre-pandemic behavior.

Figure 23: Quantity Demanded with two curves highlighted to demonstrate appearance of distinct patterns of demand before and after 2020.



Price Elasticity

Price elasticity measures the price sensitivity of customers for a given product or service by quantifying the expected percentage change in quantity for each percent change in price. If the change in quantity demanded is less than one percent in absolute value, it is considered inelastic, meaning that price has little to no impact on quantity demanded. Values over one percent in absolute value are elastic and indicate price sensitivity and greater changes in quantity demanded as prices change.

To measure the price elasticity of ferry tickets, the price was adjusted by inflation over time to ensure comparability. Table 34 provides the changes in quantity, price, and elasticity from 2016 to 2024 with prices adjusted to 2024 dollars. It shows that demand was elastic from 2016 to 2020, with an observable shock in 2020, followed by a recovery year in 2021, and then a shift to inelastic demand in 2022 and 2023.

Table 34: 2016-2024 price, quantity demanded, and elasticity

Year	Ticket Price	Real Price (2024 dollars)	Quantity Demanded	% Change in Quantity	% Change in Price	Elasticity Measure	Interpretation
2016	\$17.00	\$22.27	110,521	-0.13	0.01	-15.23	Elastic
2017	\$17.00	\$22.46	97,092	-0.15	0.14	-1.09	Elastic
2018	\$19.95	\$25.82	83,410	0.06	-0.01	-3.88	Elastic
2019	\$19.95	\$25.43	88,491	-1.51	0.20	-7.60	Elastic
2020	\$24.95	\$31.03	12,440	1.00	-0.01	-71.92	Elastic
2021	\$24.95	\$30.60	37,500	0.36	-0.07	-5.00	Elastic
2022	\$24.95	\$28.47	53,978	-0.07	-0.06	1.12	Elastic
2023	\$24.95	\$26.75	50,350	-0.01	-0.03	0.19	Inelastic
2024	\$24.95	\$25.95	50,065				

The price elasticity analysis demonstrates that customers were price sensitive until 2020, and their purchasing behavior shifted significantly following the pandemic. The analysis suggests that after 2020, customers were not as price sensitive as before the pandemic, and other factors were more significant to their decision to purchase a ticket. The following demand model analysis estimates how much price influences quantity demanded through a regression analysis.

Demand Model

This demand model uses a regression analysis to determine the strength of the relationship between price and the quantity of tickets demanded. The team used the resulting regression analysis equation to determine the maximum quantity of tickets demanded given customer behavior, maximum revenue, and appropriate pricing strategies to maximize profit or break even. The team conducted regression analyses for the pre-pandemic period from 2016 to 2019 (Figure 24) and the post-pandemic period from 2021 to 2024 (Figure 25). The analyses excluded 2020 to avoid skewing demand with the economic shock, given that distinct pre- and post-pandemic customer behaviors were observed.

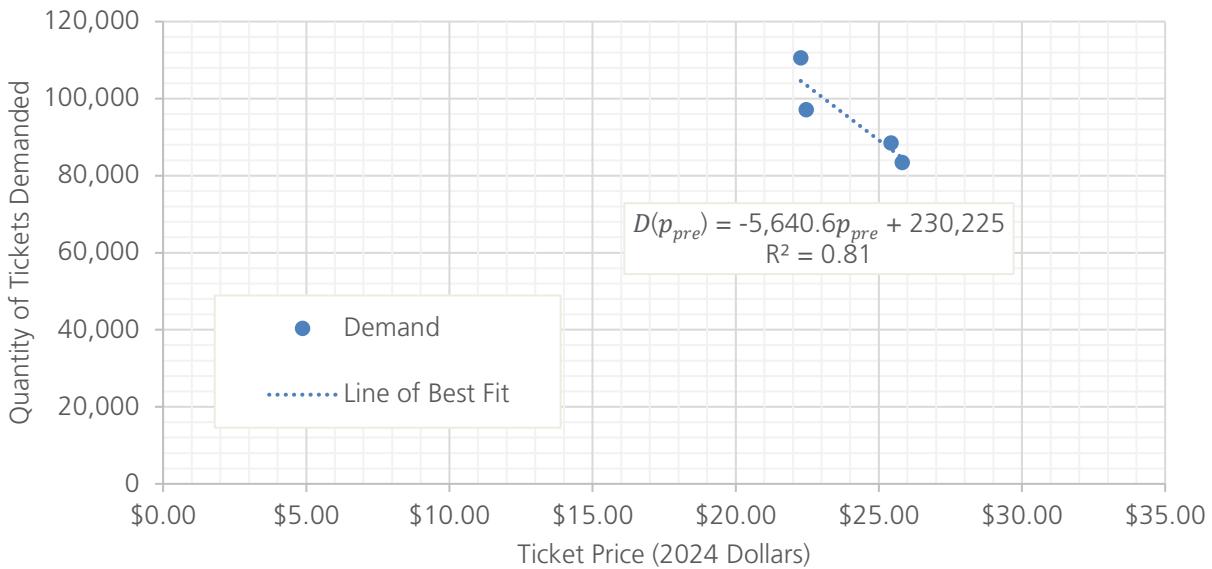
Pre-Pandemic Demand

Pre-pandemic demand, as shown in Figure 24, is expressed as: $D(p_{pre}) = -5,640p_{pre} + 230,225$. This estimates the expected quantity of tickets sold at a given price (p_{pre} = price pre-pandemic) based on pre-pandemic customer behavior. The pre-pandemic slope of -5,640 means that 5,640 fewer tickets would be sold for every one dollar increase in price. If tickets were free, the maximum number of tickets sold per year pre-pandemic would be 230,225.

The R^2 value of 0.81 means that approximately 80 percent of the variation in quantity of tickets demanded is explained by the $D(p_{pre})$ equation with approximately 20 percent of the variation unexplained. This means that pre-pandemic customers were price sensitive and 80 percent of their decision whether to purchase a ticket can be attributed to price.

The elasticity for pre-pandemic demand is -1.43 and indicates a relatively strong relationship between price and demand for tickets.

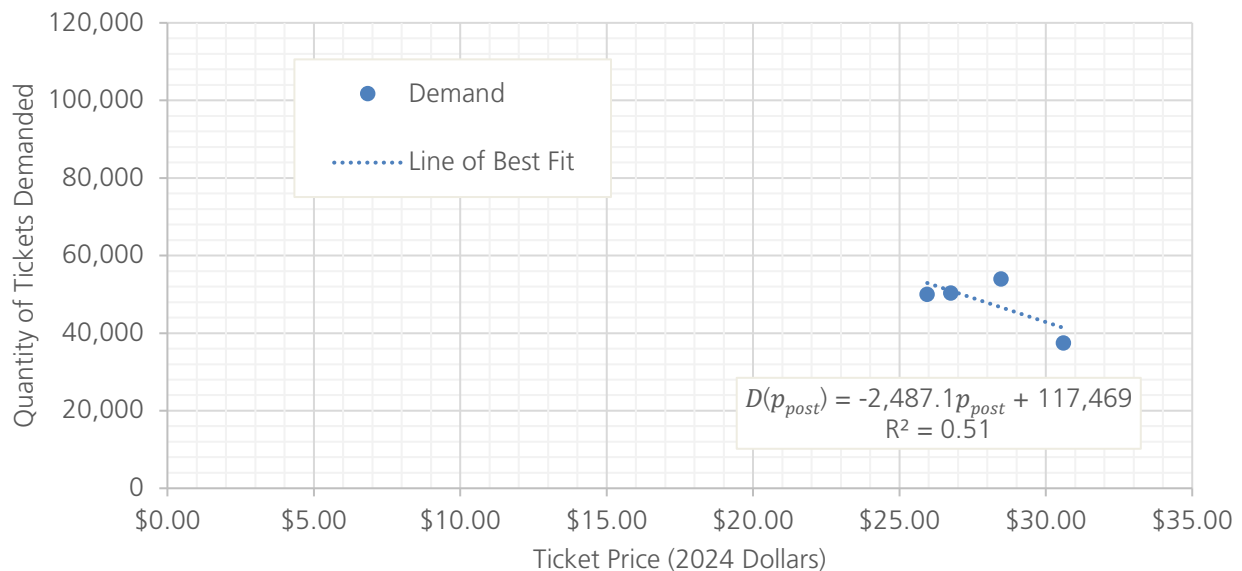
Figure 24: 2016-2019 Linear estimation of demand.



Post-Pandemic Demand

Figure 25 shows post-pandemic demand, which shifted down and flattened out compared to pre-pandemic demand shown in Figure 24. Post-pandemic demand is expressed as: $D(p_{post}) = -2,487.1p_{post} + 117,469$.

Figure 25: 2021-2024 Linear estimation of demand.



This estimates the expected quantity of tickets sold at a given price (p_{post} = price post-pandemic) based on post-pandemic customer behavior. The post-pandemic slope of -2,487 means that 2,487 fewer tickets would be sold for every one dollar increase in price. If tickets were free, the maximum number of tickets sold per year post-pandemic would be 117,469. This is approximately half of the maximum quantity estimated pre-pandemic, meaning customers are much less responsive to changes in price post-pandemic. The R^2 value of 0.51 means that approximately 50 percent of the quantity of tickets demanded is explained by the $D(p_{post})$ equation, with approximately 50 percent unexplained. This means factors in

addition to price influence post-pandemic customer decisions when determining whether to purchase a ticket.

Given this analysis, the ferry system is unlikely to see the same level of sales as before the pandemic without additional understanding of the motivations that drive consumer decisions. The team determined that adjusting the price of tickets will have a minimal impact on ticket sales.

10.2 Price Optimization

Optimal price can be derived using the demand model and cost information. This is performed through a series of steps:

1. Model demand (through Demand Model above)
2. Determine marginal cost
3. Calculate breakeven price where profit and operating cost are equal
4. Calculate revenue maximizing price
5. Validate model

Marginal Cost

Marginal cost is the additional cost for an additional unit sold of a good or service. It can either be constant or vary as certain thresholds incur additional costs. For the BHI service, a ferry can hold a set number of passengers at a given level of staffing and fuel. If the passenger count increases beyond that point, additional staff, fuel, and, potentially, additional vessels will be needed to meet demand.

Detailed cost data was available only for 2016, 2017, 2023, and 2024, as shown in Table 35 below. The team averaged per season costs based on this information to estimate costs for the years not listed. The average total operating cost for each year was estimated to be \$1,332,554 (\$222,092 per operational month). Direct operating costs include repair and maintenance, fuel, supplies, depreciation, insurance, and labor. Indirect operating costs include the operations manager, labor, website, branding, and overhead.

To conduct the calculations for revenue maximization and optimal price, marginal cost and marginal price information are needed. The cost data was provided in aggregate by year, or operating season as follows:

Table 35: Cost data provided for direct and indirect operating expenses

Expense Type	2016	2017	2023	2024
Direct operating expenses	\$874,594	\$1,046,918	-	\$445,794
Indirect operating expenses	\$797,401	\$882,658	-	\$431,737
Total	\$1,671,995	\$1,909,715	\$870,973	\$877,531

Break-Even Point

Calculating the break-even point(s) where profit equals cost allows for the identification of the minimum price to charge customers to cover costs with no profit. Using the post-pandemic demand equation, $y = -2,487.1x + 117,469$, where x is the price and y is the quantity demanded, revenue can be calculated with the demand function as follows:

$$R = x * y - x(-2,487.1x + 117,469)$$

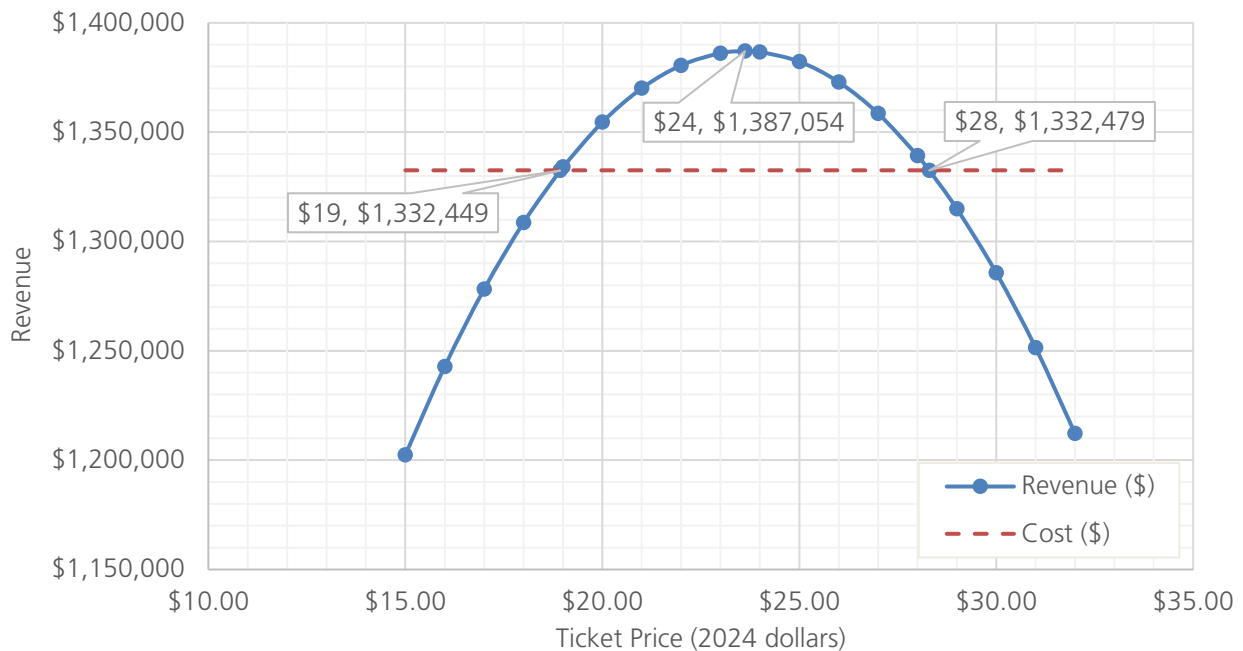
$$R = -2,487.1x^2 + 117,469x$$

This function can be used to set costs equal to revenue to find the break-even price(s). As a quadratic equation, there are two solutions:

- **Lower Break-Even Price (x_1): \$18.93**
- **Higher Break-Even Price (x_2): \$28.30**

The graph of this quadratic equation is shown in Figure 26. The break-even prices are the two points where the revenue parabola crosses the estimated total costs (dashed line).

Figure 26: Graph showing revenue, ticket price, estimated costs, and breakeven points.



Profit Maximizing Price

The formula $\pi''(p) < 0$, where π is the variable representing profit, identifies the optimal price if profit maximizing is the goal. Profit is the difference between revenue and costs. Given the data provided and current demand, the team found that the optimal price occurs at \$23.62. The vertex (highest point) of the graph in Figure 26 illustrates this point.

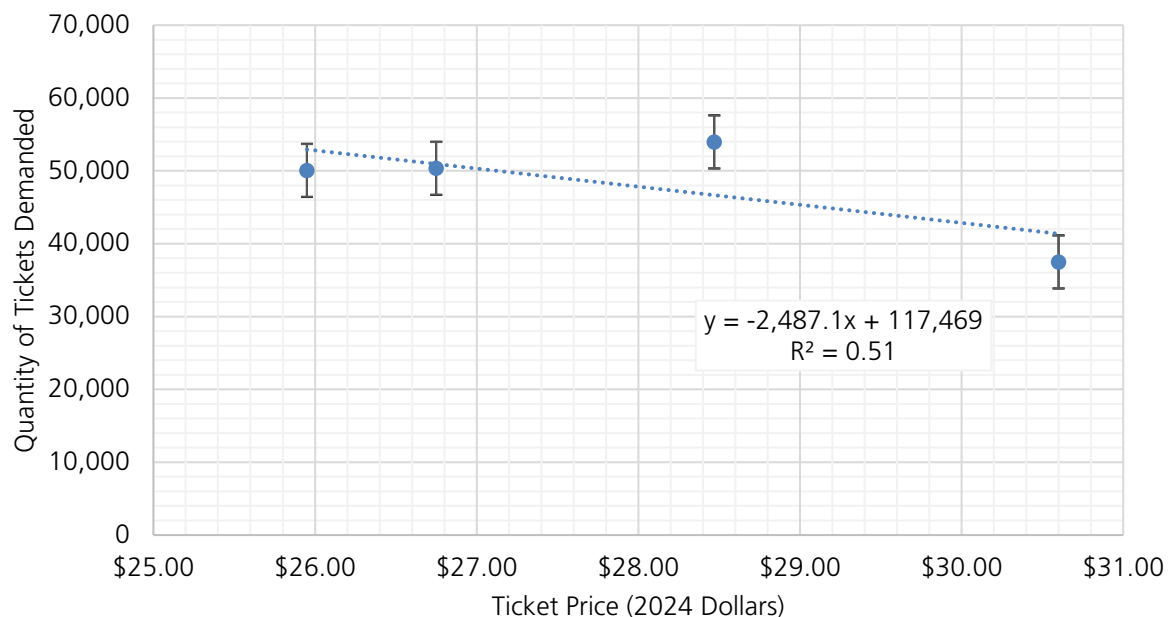
Needed subsidy amounts can be estimated utilizing this formula and the breakeven price, based on BHN's desire to maximize ridership and create opportunities for visitors to ride the ferry.

Optimal quantity can be determined by dividing profit by price, which results in an optimal quantity of 58,734 tickets. The team estimated annual costs of \$1,332,554 and revenue of \$1,387,297 at this price. No subsidy would be needed at this price because the revenue is greater than annual costs. The current ticket price of \$24.95 covers costs and allows for a limited number of discounted tickets without additional subsidy. The model validation process identified options for aggregated discount amounts and discounts per ticket allocations.

Demand Model Validation

The team validated these findings against the elasticity (year to year variability based on price) and residuals (accuracy level of the model based on distance of each point from the linear estimate), which demonstrated that these calculations provide a reasonable estimate for current customer behavior, with some variation expected. The calculations of residuals via the mean absolute error (MAE) measure indicate that while the model captures the general purchasing behavior of ferry customers, the expected ticket sales may vary by approximately 3,658 tickets above or below the optimal quantity, shown in Figure 27 below. The limited number of years used in the model reduces the precision in predicting customer behavior. The elasticity patterns shown above offer similar results of variability with less change in quantity as a result of price in the post-pandemic years.

Figure 27: Graph of demand model with mean absolute error bars



10.3 Discount Scenarios

Table 36 shows the expected revenue and subsidy needed to breakeven based on different prices and discount schemes given today's customer behavior. It examines different price and discount schemes based on the current ticket price of \$24.95 rounded up to the closest dollar. The effective price in the first column is the weighted average price of a ticket when all discounts are accounted for. It accounts for all discount programs as an aggregated amount. The second column shows the discount amount per ticket averaged across all tickets.

Key results of the discount analysis include:

- Approximate breakeven level: \$20 effective price
- Maximized revenue: \$24 effective price
- Current average discount level (2021 to 2024), or 54 percent discount: \$12 effective price

Table 36: Effective price with discounts, discount level for price, costs, and expected quantity, revenue, and needed subsidy based on 2021-2024 demand.

Effective Price	Discount	Quantity (units)	Estimated Cost	Revenue	Subsidy Needed
\$10	61%	92,599	\$1,332,554	\$925,990	\$406,564
\$12	54%	87,624	\$1,332,554	\$1,051,488	\$281,066
\$15	46%	80,163	\$1,332,554	\$1,122,282	\$210,272
\$16	38%	77,675	\$1,332,554	\$1,242,800	\$89,754
\$18	31%	72,701	\$1,332,554	\$1,308,618	\$23,936
\$20	23%	67,729	\$1,332,554	\$1,354,580	\$0
\$22	15%	62,753	\$1,332,554	\$1,380,566	\$0
\$24	9%	57,779	\$1,332,554	\$1,386,696	\$0
\$25	0%	55,294	\$1,332,554	\$1,383,800	\$0

BHN may desire to offer discounted tickets to an average percentage of the customer base. Table 37 is a compact scenario matrix showing various combinations of discounts. The team examined scenarios based on the share of customers (*s*) receiving a discount and the percentage of list price discounted (*d*) averaged across all sales. Each cell provides the effective price of each ticket, monthly revenue and surplus, and total annual subsidy needed to operate at that price for each share of customers and the percent discount combination.

The following inputs were used:

- List price $p = \$25.00$
- Post-pandemic demand (as modeled in Post-Pandemic Demand above) = $D(p) = -2,487.1p + 117,469$

Using this formula, the team expects that 55,294 tickets would be sold at a list price of \$25 given current customer behavior. The effective price of each ticket and annual revenue are calculated for each scenario using the following formulas:

- s = share of customers receiving a discount
- d = percent of list price discounted averaged across all sales
- Effective Price = $EP = p \times (1 - sd)$
- Annual Revenue = $EP \times \text{quantity demanded}$

The annual profit is calculated by subtracting the average total annual operating cost of \$1,332,554 (identified in the Marginal Cost section above) from annual revenue. A negative annual profit indicates that amount is needed in an annual subsidy to breakeven.

Table 37: Scenario matrix for various discount schemes.

	s = 0%	s = 25%	s = 50%	s = 75%	s = 100%
d = 0%	EP = \$25 Revenue = \$1,382,350 Profit = \$49,796 Subsidy = \$0	EP = \$25 Revenue = \$1,382,350 Profit = \$49,796 Subsidy = \$0	EP = \$25 Revenue = \$1,382,350 Profit = \$49,796 Subsidy = \$0	EP = \$25 Revenue = \$1,382,350 Profit = \$49,796 Subsidy = \$0	EP = \$25 Revenue = \$1,382,350 Profit = \$49,796 Subsidy = \$0
d = 20%	EP = \$25 Revenue = \$1,382,350 Profit = \$49,796 Subsidy = \$0	EP = \$23.75 Revenue = \$1,387,065 Profit = \$54,511 Subsidy = \$0	EP = \$22.50 Revenue = \$1,384,009 Profit = \$51,455 Subsidy = \$0	EP = \$21.25 Revenue = \$1,373,180 Profit = \$40,626 Subsidy = \$0	EP = \$20 Revenue = \$1,354,580 Profit = \$22,026 Subsidy = \$0
d = 40%	EP = \$25 Revenue = \$1,382,350 Profit = \$49,796 Subsidy = \$0	EP = \$22.50 Revenue = \$1,384,009 Profit = \$51,455 Subsidy = \$0	EP = \$20 Revenue = \$1,354,580 Profit = \$22,026 Subsidy = \$0	EP = \$17.50 Revenue = \$1,294,064 Profit = -\$38,490 Subsidy = \$38,490	EP = \$15 Revenue = \$1,202,460 Profit = -\$130,094 Subsidy = \$130,094
d = 60%	EP = \$25 Revenue = \$1,382,350 Profit = \$49,796 Subsidy = \$0	EP = \$21.25 Revenue = \$1,373,180 Profit = \$40,626 Subsidy = \$0	EP = \$17.50 Revenue = \$1,294,064 Profit = -\$38,490 Subsidy = \$38,490	EP = \$13.75 Revenue = \$1,145,000 Profit = -\$187,554 Subsidy = \$187,554	EP = \$10 Revenue = \$925,990 Profit = -\$406,564 Subsidy = \$406,564
d = 80%	EP = \$25 Revenue = \$1,382,350 Profit = \$49,796 Subsidy = \$0	EP = \$20 Revenue = \$1,354,580 Profit = \$22,026 Subsidy = \$0	EP = \$15 Revenue = \$1,202,460 Profit = -\$130,094 Subsidy = \$130,094	EP = \$10 Revenue = \$925,990 Profit = -\$406,564 Subsidy = \$406,564	EP = \$5 Revenue = \$525,170 Profit = -\$807,384 Subsidy = \$807,384

Key

s = share of customers receiving a discount

d = percent of list price discounted averaged across all sales

Effective Price = $(EP) = p \times (1 - sd)$ Annual Revenue = $EP \times \text{quantity demanded}$

10.4 Recommendations

The analysis determined that minimal discounting is required to breakeven based on current customer behavior. It is recommended that BHN use Table 37 to determine the desired discount scheme. Once the target share of customers receiving a discount and the percent discount averaged across all sales is determined, BHN and BOHA should confirm what level of subsidy can be obtained to support the target scheme. Staff could also consider lowering the list price discount percentage or consolidating discount programs to better align with current customer behavior since it is only somewhat price sensitive. Future target subsidies could be more precisely calculated with improved data on operating costs and the utility of all discount programs.

Additionally, the team's analysis determined that the pandemic shifted customer behavior for purchasing ferry tickets and dropped the maximum possible number of passengers by approximately half and decreased their sensitivity to changes in price. Further research is needed to better understand what factors besides price influence customer behavior. Conducting interviews, surveys, and market research could provide additional insights into why customers choose to purchase a ferry ticket and what factors influence their decision, such as attractions available on the island, length of time for the activity, and other nearby activities available. The results will help inform strategies to increase demand for ferry rides, such as advertising, communications, events, and other strategies to influence decision-making.

11 Capital Assets

11.1 Vessel Needs Assessment

The route alternatives recommended in Section 8.4 above would require the use of two 149-passenger vessels and two 300-passenger vessels. Table 38 below summarizes routes under the proposed operating model, the recommended vessel size, vessels owned by BHCC that could serve the route, vessel capacity, age, and if it is recommended the vessel be replaced. Vessel replacement recommendations were determined based on vessel size, age, and emissions. The existing BHCC vessels currently used for BHI service are an average of 46.5 years old, and the oldest vessel is 52 years old.

The needs assessment determined acquiring a vessel in place of the Rita because it is the smallest and oldest vessel that could be used to support the proposed operating model and would reduce overall cost and provide maximum emissions reduction. It is recommended that BHI conduct further analysis to determine the feasibility of purchasing a recent or building a new 149-passenger vessel with the most efficient diesel engine.

Table 38: Vessel recommendations.

Route	Recommended Vessel Size	Existing Vessel in BHCC fleet	Passenger Capacity	Age (years)	Should Be Replaced (Y/N)
Long Wharf – Spectacle Direct	300	Fort Independence	530	41	N
Long Wharf – Georges Direct	300	Brant Point	520	52	N
Northern Interisland Loop OR Southern Interisland Loop	149	Claire*	128	42	N
Northern Interisland Loop OR Southern Interisland Loop	149	Rita*	149	43	Y
Northern Interisland Loop OR Southern Interisland Loop	149	Majestic*	129	23	N

* Denotes vessels currently owned by BHCC but are not currently used for BHI service.

Emissions Reduction

Stakeholders expressed interest in learning about options for reducing the emissions of the ferry service. The current ferry fleet operated by BHCC is made up of diesel vessels built no more recently than 2002. The current Environmental Protection Agency (EPA) tiered diesel emission standards began implementation in 1996, after the construction of most BHCC vessels. Should BOHA-BOST pursue emission reduction of the current ferry fleet, the Partnership will need to further explore vessel purchase, ownership, and lease options, as the current fleet is owned and maintained by the concessioner. NPS could encourage or require certain emission standards for the fleet operated by any future concessioner, fund or incentivize improvements of the concessioner's current fleet, or lease or purchase new vessels for use by a future concessioner.

Options to reduce the emissions of the ferry vessel fleet include:

- **Upgrade diesel engines.** Existing engines can be improved with aftermarket components such as retrofit kits provided by engine manufacturers, which can bring the engine to Tier 1 or 2 standards. Other treatment kits can be used to filter diesel particulate matter or nitrogen oxides. Engines can be replaced with new engines at more stringent emission tiers. Any new or replacement marine diesel engines must meet either Tier 3 or Tier 4 standards, depending on the engine displacement and horsepower.
- **Convert to or purchase hybrid-electric vessels.** A hybrid-electric vessel combines a battery with fossil fuel propulsion. Such an upgrade would require a customized engineering solution.
- **Convert to or purchase battery electric vessels.** There is a limited number of battery electric ferries in operation worldwide, but new vessels are under design or construction through several ferry commuter systems such as the San Francisco Bay Ferry. The Gee's Bend Ferry, owned and operated by the Alabama Department of Transportation, is the only battery electric ferry currently in operation in the United States, and uses a battery charged shoreside (Figure 28).

Figure 28: Gee's Bend ferry.



Source: Maritime TV

11.2 Dock Needs Assessment

The route alternatives recommended in Section 8.4 above would require the use of seven docks, two on the mainland and five on islands. Table 39 below summarizes the docks recommended for use in the new system, condition, and any planned improvements. The dock conditions were assessed in 2022 by GEL. Dock ratings from worst to best are as follows: critical, serious, poor, fair, satisfactory, and good. The needs assessment determined there are no significant improvements required to support the recommended route alternatives proposed in Section 8.4.

Table 39: Condition and planned improvements of docks and piers recommended for use in new system.

Dock/Pier	Condition	Planned Improvements
Long Wharf, Boston	Good	• Currently examining designs to improve coastal resilience⁵
Hewitt's Cove, Hingham	Good	• Floating dock replacement • Connecting gangway extension and replacement • Covered walkway replacement⁶
Spectacle Island	Satisfactory	None
Georges Island	Satisfactory	None
Peddocks Island	Satisfactory	None
Grape Island	Fair	None
Bumpkin Island	Fair	None

⁵ [Long Wharf Coastal Flood Resilience Planning & Feasibility Project](#)

⁶ [MBTA: Hingham Ferry Dock Improvements](#)

12 Next Steps

12.1 Guidance for Future Vessel Specifications

It is recommended that BHI partners further analyze the needs and specifications of a vessel to best serve the proposed operating model. There are limited examples of NPS units acquiring a vessel, including Gulf Island National Seashore (GUIS) and Isle Royale National Park (ISRO). GUIS acquired two vessels in 2018 using funds received via a post-Deepwater Horizon oil spill settlement reached with BP.⁷ Similarly, ISRO is in the process of acquiring a new vessel; however, this vessel was custom designed to fit the unique needs of the park and is generally larger and more complex, and therefore followed a longer process than would be expected for BHI. Vessel specifications should be recommended based on four main criteria: vessel type; vessel characteristics; desired amenities; and if the fleet should be standardized to streamline maintenance.⁸ It is recommended that BHI consider each of these criteria in developing specifications for a new vessel in future analysis.

Additionally, funding will need to be identified for vessel design and acquisition. It is recommended in future analysis that BHI use the [NPS Cost Estimating Requirements Handbook](#) to develop cost estimates for vessel acquisition. It is also recommended that BHI review the vessel acquisition processes and costs from GUIS and ISRO to further refine the cost estimate.

12.2 Funding Opportunities

Ferry Boat Program (FBP) (FHWA)

The Federal Highway Administration (FHWA) provides Federal-aid highway funds through the [Construction of Ferry Boats and Ferry Terminal Facilities Formula Program](#) (FBP). FBP funds are eligible for the design and construction of ferry boats; for acquiring right-of-way, designing, and constructing of ferry terminal facilities; and for operating costs of eligible entities (in accordance with Title 23, United States Code [U.S.C.], Sections [129\(c\)](#) and [147](#)). A ferry system must be publicly operated or have publicly owned vessels or other ferry infrastructure to qualify. Operators must complete the National Census of Ferry Operators (NCFO) for a publicly owned or operated ferry system to receive funds. A 20 percent non-federal match is required, though there are some exceptions to the non-federal match such as using Federal Lands Transportation Program (FLTP) funds.

For the NPS, the FBP is a federal assistance formula program in which funds are made available for projects through state or territorial transportation agencies as pass-through entities. Any state with an eligible entity that meets requirements will receive \$100,000 or more per fiscal year ([23 U.S.C. Section 147\(f\)](#)). Massachusetts received a total of \$4,595,059 in the FY24 FBP funding announcement, distributed between BHCC for their Massachusetts Bay Transportation Authority (MBTA) operations and Woods Hole, Martha's Vineyard and Nantucket Steamship Authority.

The BHI partners could use FBP funds to improve ferry infrastructure or to support vessel acquisition. If FBP funds were used to improve docks, the BHI partners would need to coordinate with infrastructure owners, such as the City of Boston or DCR. An analysis of potential federal formula funding that would be available to the BOHA ferry system if the NCFO were completed is available in Appendix C.

⁷ [Deepwater Horizon Oil Spill Natural Resource Damage Assessment: Gulf Islands National Seashore Ferry Project](#), 1

⁸ Pensacola Bay Ferry Service Ferry and Shuttle Transportation Feasibility Study, 2-12 – 2-23

Nationally Significant Federal Lands and Tribal Projects (FHWA)

The [Nationally Significant Federal Lands and Tribal Projects](#) (NSFLTP) grant program through FHWA provides competitive funding to enhance access to and within federally managed lands and tribal areas. Eligible applicants include federal land management agencies, tribal governments, state and local governments, metropolitan planning organizations, regional transportation authorities, and other public entities partnering on such efforts. The program requires the funding of at least one eligible project submitted by NPS for a park with 3,000,000 annual visitors or more and targets nationally significant corridors and gateways when awarding funds.

Grant awards support a wide array of project types, including road and bridge construction or rehabilitation, safety and operational upgrades, transit and multi-hazard resilience enhancements, and non-motorized trail connections. NSFLTP funds may also be used for planning, environmental analysis, design, transit fleets or vessels, and construction of visitor access facilities that improve mobility and promote economic growth. A 10 percent non-federal match is required, though there are some exceptions to the non-federal match such as using FLTP funds.

NSFLTP applications are coordinated by WASO on an annual basis. It is recommended that BOHA-BOST coordinate with their Regional Transportation Coordinator to align with WASO on funding strategy.

Passenger Ferry Grant Program (FTA)

The [Passenger Ferry Grant program](#) through the Federal Transit Administration (FTA) provides competitive funding for projects that support passenger ferry systems in urbanized areas. Funds are awarded based on factors such as the age and condition of existing ferry boats, terminals, and related infrastructure; benefits to riders, such as increased reliability; project readiness; and connectivity to other modes of transportation.

Eligible recipients are direct recipients of Section 5307 (Urbanized Area Formula grants), states, and tribes that operate a public ferry system in an urbanized area. Eligible activities include capital projects to purchase, replace, or rehabilitate passenger ferries, terminals, and related facilities and equipment. Funds may not be used for operating expenses, planning, or preventative maintenance. A 20 percent non-federal match is required, though there are some exceptions to the non-federal match such as using FLTP funds.

The Passenger Ferry Grant program is generally focused on commuter ferries, and not recreational ferries; however, the BHI ferry service could benefit if MBTA were awarded Passenger Ferry Grant funds and used the funds to improve infrastructure that is also used for BHI service or if there was shared service between MBTA and BOHA-BOST for service to the islands. The 2024 Notice of Funding Opportunity is [available online](#) and provides a summary of what to expect in the application process. For more information, contact FTAFerryPrograms@dot.gov.

Electric or Low-Emitting Ferry Pilot Program (FTA)

The [Electric or Low-Emitting Ferry Pilot program](#) through FTA provides competitive funding for projects that support the purchase of electric or low-emitting ferries and the electrification of or other reduction of emissions from existing ferries. Eligible recipients are direct recipients of Section 5307 (Urbanized Area Formula grants) or Section 5311 (Rural Area Formula grants) funds. Eligible activities include capital projects that include the purchase of electric or low-emitting ferry vessels that reduce emissions by using alternative fuels or on-board energy storage systems and related charging infrastructure to reduce emissions or produce zero onboard emissions under normal operation. Alternative fuels are defined as:

- Methanol, denatured ethanol, and other alcohols
- A mixture containing at least 85 percent of methanol, denatured ethanol, and other alcohols by volume with gasoline or other fuels

- Natural gas
- Liquefied petroleum gas
- Hydrogen
- Fuels (except alcohol) derived from biological materials
- Electricity (including electricity from solar energy)
- Any other fuel that is not substantially petroleum that would yield substantial energy security and environmental benefits

A 20 percent non-federal match is required, though there are some exceptions to the non-federal match such as using FLTP funds.

Subsequent phases of this project will examine future vessel acquisition and opportunities to reduce emissions impacts from operations. Recommendations from future research may include using funds from the Electric or Low-Emitting Ferry Pilot program to support emissions reductions efforts. The 2024 Notice of Funding Opportunity is [available online](#) and provides a summary of what to expect in the application process. For more information, contact FTAFerryPrograms@dot.gov.

Clean Ports Program (EPA)

The [Clean Ports program](#) through the EPA funds zero-emission port equipment and infrastructure to reduce greenhouse gases and air pollutants at ports. Eligible recipients are port authorities; state, regional, local, or Tribal agencies that have jurisdiction over a port authority or port; and private entities that apply in partnership with another eligible entity and own, operate, or use facilities, cargo-handling equipment, transportation equipment, or related technology of a port. There are two competitive grants through the program: Zero-Emission Technology Deployment and Climate and Air Quality Planning.

The Zero-Emission Technology Deployment competitive grant funds zero-emission port equipment and infrastructure to reduce mobile source emissions at ports. Eligible activities include: zero-emission mobile equipment that serves a port; zero-emission infrastructure serving mobile equipment; and zero-emission technology deployment support activities.

The Climate and Air Quality Planning competitive grant funds climate and air quality planning activities at US ports, including emissions inventories, strategy analysis, community engagement, and resiliency measure identification, all of which will build the capacity of port stakeholders to continue to reduce pollution and transition to zero-emissions operations over time. Eligible activities include emissions inventory and accounting practices (one or more required); stakeholder collaboration and communication, including workforce planning analysis, with a focus on near-port communities; strategy analysis and goal setting; and resiliency planning.

Projects for both competitive grants must focus on or serve a water port or dry port (as defined by program guidance). Historically, applications were evaluated based on Environmental Justice, Justice40, and non-attainment areas; workforce and labor training; and partnerships and coordination with complementary initiatives.

The Zero-Emissions Technology Deployment and Climate and Air Quality Planning grants could be used to fund zero-emission or climate and air quality planning activities if recommended in future research. The 2024 Notice of Funding Opportunity for the [Zero-Emission Technology Deployment program](#) and [Climate and Air Quality Planning program](#) are available online and provide a summary of what to expend in the application process.

Diesel Emissions Reduction Act (EPA)

The [Diesel Emissions Reduction Act](#) through the EPA offers funding assistance to accelerate the update, retrofitting, and turnover of the legacy diesel fleet. Eligible recipients include regional, state, or local agencies, Tribal governments, or port authority, which has jurisdiction over transportation or air quality;

and nonprofit organizations or institutions that represent or provide pollution reduction or education services to persons or organizations that own or operate diesel fleets or has, as its principal purpose, the promotion of transportation or air quality. School districts, municipalities, MPOs, cities, and counties are all generally eligible entities if they have jurisdiction over transportation or air quality. Eligible activities include the retrofit or replacement of existing diesel engines (including marine engines), vehicles and equipment with EPA certified engine configurations and verified retrofit and idle reduction technologies. Equipment for testing emissions or fueling infrastructure is not eligible for funding.

BHI might consider applying for funds through the Diesel Emissions Reduction Act to fund vessel acquisition to replace existing diesel vessels, if recommended in future research. For more information, contact dera@epa.gov.

National Maritime Heritage Grant (NPS and MARAD)

The [National Maritime Heritage Grant](#) through NPS in partnership with the DOT Maritime Administration (MARAD) is a competitive matching grant program that provides competitive funding for education and preservation subgrant programs related to the maritime history and heritage of the United States. It seeks to preserve historic maritime resources and to promote and educate the public about maritime heritage legacy.

The program provides 1-to-1 matching funds for preservation and education projects in three categories: historic maritime properties; maritime heritage collections; and traditional maritime skills. Eligible applicants are the 59 State Historic Preservation Offices (SHPOs) and the National Trust for Historic Preservation.

National Maritime Heritage Grant funds do not directly fund ferry operations, but BHI could apply for funds to improve historic ferry assets that would also benefit ferry operations. For more information, contact maritime_grants@nps.gov.

12.3 Key Recommendations and Conclusion

This study has reviewed existing conditions, engaged with BHI stakeholders, identified and documented challenges, opportunities, and next steps related to the BOHA ferry system. This report provides recommendations for operational alternatives to increase visitation to the islands, contract mechanism options, and vessel and dock replacement to support the recommended alternatives. Additionally, it includes an economic analysis of revenues and costs over the last ten years and provides options to maximize the quantity of ferry ticket purchases and minimize costs. Table 40 summarizes key operational alternatives, service delivery, and economic analysis recommendations, while baseline recommendations for the BHI partnership as a whole and capital asset recommendations are available in Section 7.3 and Section 11, respectively.

The recommendations in this report should inform future efforts that examine vessel acquisition to support the recommended route alternatives. Subsequent phases should assess the feasibility of BOHA-BOST acquiring a vessel, identify vessel specifications, explore opportunities for low-emission vessels, and estimate the cost of vessel acquisition.

Table 40: Key recommendations.

Recommendation Area	Key Recommendation	Timeframe
Operational Alternatives	Implement Long Wharf to Spectacle Island Direct Ferry	Short
	Implement Long Wharf to Georges Island Direct Ferry	Short
	Implement Southern Interisland Loop Route	Short
	Implement Northern Interisland Loop Route	Short
	Explore opportunities to pilot ferry services and special events	Medium
Service Delivery	Maintain concession contract with BHN as ferry service owner and manager	Short
	Explore opportunities to improve contract management through oversight of performance and review of data called for in contract	Short
Economic Analysis	Determine desired discount scheme using Table 37 and confirm what level of subsidy can be obtained to support the target scheme	Short
	Consider lowering list price discount percentage or consolidating discount programs to better align with customer behavior since it is only somewhat price sensitive	Short
	Collect improved data on operating costs and utility of all discount programs to more precisely calculate future target subsidies	Medium
	Conduct further research, such as conducting interviews, surveys, and market research, to better understand what factors besides price influence customer behavior to inform strategies to increase demand for tickets, such as advertising, communications, events, and other strategies to influence decision-making	Short

Appendix A: Opportunities and Recommendations

Table 41: All identified opportunities and recommendations, organized by primary theme.

Primary Theme	ID	Opportunity	Description	Timeframe	Baseline Recommendation	Further Discussion in Report	Visitor Experience	Ferry System Routing and Service	Ticketing and Fares	Information and Partnerships	Administration and Funding	Infrastructure and Capital Investment
Visitor Experience	V1	Increase on-island programming, including increasing self-guided programming activities	Additional variety of programmed events on the islands may draw a greater variety of visitors and increase visitation overall	Short-term	✓	✓				✓		
	V2	Provide greater diversity of summer programming	Additional types of events, such as movies, concerts, and nature walks should be considered	Medium-term						✓		
	V3	Increase off-season programming	Consider additional programming during fall, such as Halloween events	Medium-term						✓		
	V4	Integrate audio and visual elements into Welcome Center	Attract walk-in visitors from the Greenway	Medium-term								✓
	V5	Consider moving Welcome Center to Long Wharf ticketing location	To associate the Center more closely with the harbor, a land-swap with BHCC has been discussed.	Long-term								✓
	V6	Increase on-island information	Provide additional interpretive resources on islands	Medium-term	✓							✓
	V7	Increase ADA accessibility of docks	Prioritize accessibility of Spectacle, Peddocks, and Georges Islands	Long-term	✓			✓				✓
	V8	Strengthen Boston Harbor Islands connection to NPS sites	CNY, Faneuil Hall, the Black Heritage Trail, and the Freedom Trail draw high numbers of visitors	Ongoing	✓					✓		
	V9	Develop cohesive resource for visitors looking to visit all Boston-area NPS sites	Ensure visitor awareness of the BHI when planning a trip to Boston	Medium-term	✓					✓		
	V10	Increase cell service connectivity on islands	Facilitate emergency communication	Long-term								✓
	V11	Increase food and other concession offerings on islands	This will improve the attraction of a visit to the BHI	Medium-term	✓					✓		
	V12	Ranger presence, other programming, or audio recording on ferries for interpretation	This will improve visitors' understanding of the harbor's environment, history, and island resources	Medium-term	✓	✓		✓				
Ferry System Routing and Service	F1	Increase service frequency	This would allow more options for shorter or longer stays on islands	Medium-term	✓	✓	✓					
	F2	Expand service to more islands, including returning the interisland and southern loops	Offering interisland ferry service could attract more visitors, facilitate new types of trips, and enable shorter and more attractive trip lengths	Medium-term	✓	✓	✓					
	F3	Expand service to more gateways, non-island areas, and parks	Many visitors explore landside sites and a connection to BOHA could encourage more island visitation	Long-term			✓					✓
	F4	Review vessel sizes by destinations and typical passenger loads	Ensure efficiency by adjusting vessel size assignments to expected numbers of passengers	Medium-term							✓	✓
	F5	Focus ferry service on Spectacle and Georges Islands	Serve the islands with the most resources and NPS programming	Short-term			✓					
	F6	Ensure access for camping	Provide adequate ferry service to camping islands (Bumpkin, Grape, and Lovells)	Medium-term	✓	✓	✓					
	F7	Coordinate route information, trip planning, and fares with MBTA Ferries	Provide information about additional ferry services on BHI and MBTA materials	Medium-term	✓	✓	✓		✓	✓	✓	
	F8	Provide water taxi service	This could ease challenges with sailings to the islands outside of the standard schedule	Medium-term			✓			✓		

Primary Theme	ID	Opportunity	Description	Timeframe	Baseline Recommendation	Further Discussion in Report	Visitor Experience	Ferry System Routing and Service	Ticketing and Fares	Information and Partnerships	Administration and Funding	Infrastructure and Capital Investment
Ticketing and Fares	T1	Review fare structure to encourage more ridership and greater access to BHI across income levels	Provide more low-priced ticket options for lower-income visitors	Medium-term	✓	✓	✓				✓	
	T2	Review price structure to identify price reduction options	Develop break-even scenarios and options that may reduce revenue but increase visitation	Medium-term			✓				✓	
	T3	Provide booking options on Recreation.gov	Utilize the federal government’s centralized travel planning and reservation platform to increase visitation	Medium-term			✓					✓
	T4	Provide mobile ticketing options	Reduce costs of paper tickets and increase ease of use for visitors	Medium-term	✓							
	T5	Shift MA resident reduced tickets to Fridays, weekends, and/or every day	Increase utilization of reduced tickets by providing during popular days	Short-term	✓	✓	✓			✓		
	T6	Provide ticket sales at Welcome Center	Increase opportunities for walk-up visitors	Medium-term	✓	✓	✓			✓	✓	
Public Information and Partnerships	P1	Expand events programming through partnerships and process for determining visitation draws	Review past events and determine successful themes, marketing, and locations	Short-term			✓				✓	
	P2	Review and continue Innovation Islands mini-grant program	Update program for effectiveness and expanded visitation	Short-term							✓	
	P3	Identify funding for additional marketing	Increase awareness of BHI through expanded marketing	Medium-term							✓	
	P4	Share marketing material regularly among Partners	Ensure signal boosts of marketing messages	Ongoing	✓	✓					✓	
	P5	Collaborate with BHCC to ensure marketing material is deployed effectively	Review BHCC marketing program to ensure effectiveness	Ongoing	✓						✓	
	P6	Coordinate with other NPS Boston sites to raise awareness and interest in the BHI	Link BHI to CNY, Faneuil Hall, trails, and other sites that draw high numbers of visitors	Ongoing	✓		✓				✓	
	P7	Build relationships with students and families	Opportunities include youth ambassador program, schools, YMCA, universities, and other educational institutions	Medium-term	✓		✓				✓	
	P8	Increase marketing through physical ads and digital/social media.	Identify opportunities for physical ads on kiosks, MBTA transit, Massport facilities, and targeted digital/social media ads	Medium-term	✓	✓					✓	✓
Administration and Funding	A1	Complete BTS National Census of Ferry Operators	Ensure access to FHWA Ferry Boat Program funding	Short-term	✓	✓						
	A2	Revitalize Water Transportation subcommittee under the Operations Committee	Subcommittee should ensure progress on recommendations and review visitation numbers	Short-term	✓							
	A3	Review service delivery model and explore options beyond the concession contract	Options include direct operations or a service contract	Long-term				✓				
	A4	Ensure regular transmission of reports and data required by current contract	Article 7 calls for monthly reporting, year-end pro-forma, and other documentation	Short-term	✓							
	A5	Explore options for partnering with MBTA on ferry operations	Cooperative agreement may provide opportunities for reduced administrative burden and expenses	Medium-term		✓		✓				
	A6	Reactivate surveys and further data analysis	Survey analysis can provide understanding of successful strategies and visitor usage	Medium-term	✓		✓			✓		

Primary Theme	ID	Opportunity	Description	Timeframe	Baseline Recommendation	Further Discussion in Report	Visitor Experience	Ferry System Routing and Service	Ticketing and Fares	Information and Partnerships	Administration and Funding	Infrastructure and Capital Investment
Capital Investment and Infrastructure	C1	Explore opportunities for lower-emission fuels	BHN could encourage or require concessioner to use lower-emission fuels, encourage or require more efficient vessels, or supply efficient vessels for operator use	Long-term	✓	✓		✓			✓	
	C2	Develop comprehensive asset inventory for water transportation facilities	Ensure regular capital planning and funding to keep assets in state of good repair	Long-term							✓	
	C3	Identify, prioritize, and fund infrastructure improvements	Improvements may be prioritized for ADA access and resiliency	Long-term	✓		✓				✓	
	C4	Engage with local and federal partners on potential funding opportunities	Ensure awareness of funding programs and plan for applications	Ongoing	✓	✓					✓	
	C5	Perform critical maintenance on popular islands	Ensure assets on Spectacle, Peddocks, and Georges Islands remain in state of good repair	Ongoing	✓		✓				✓	

Appendix B: Operational Alternatives Schedules

Table 42: Long Wharf to Spectacle Island direct route proposed schedule. Peak season in italics.

Long Wharf (Depart)	Spectacle (Arrive)	Spectacle (Depart)	Long Wharf (arrive)
8:30	9:00	9:15	9:45
<i>10:15</i>	<i>10:45</i>	<i>11:15</i>	<i>11:45</i>
<i>12:15</i>	<i>12:45</i>	<i>13:15</i>	<i>13:45</i>
<i>14:15</i>	<i>14:45</i>	<i>15:15</i>	<i>15:45</i>
16:15*	16:45*	17:00	17:30

*Visitors would not be permitted to board at Long Wharf or disembark on Spectacle Island for the final sailing of the day. The purpose of this trip is to bring visitors back to Long Wharf.

Table 43: Long Wharf to Georges Island direct ferry proposed schedule.

Long Wharf (Departure)	Georges Island (Arrival)	Georges Island (Departure)	Long Wharf (Arrival)
9:00	9:45	10:00	10:45
11:00	11:45	12:00	12:45
13:00	13:45	14:00	14:45
15:00*	15:45*	16:00	16:45

*Day-trippers would not be permitted to board at Long Wharf or disembark on Georges Island for the final sailing of the day. The purpose of this trip is to bring visitors back to Long Wharf.



Table 44: Southern Interisland loop ferry proposed schedule.

Hingham (Depart)	Georges (Arrive)	Georges (Depart)	Peddocks (Arrive)	Peddocks (Depart)	Bumpkin (Arrive)	Bumpkin (Depart)	Grape (Arrive)	Grape (Depart)	Hingham (Arrive)
8:25	9:20	9:30	9:50	10:00	10:20	10:30	10:50	11:00	11:10
Hingham (Depart)	Peddocks (Arrive)	Peddocks (Depart)	Georges (Arrive)	Georges (Depart)	Peddocks (Arrive)	Peddocks (Depart)	Hingham (Arrive)		
11:25	12:00	12:25	12:45	13:00	13:20	13:35	14:10		
Hingham (Depart)	Grape (Arrive)	Grape (Depart)	Bumpkin (Arrive)	Bumpkin (Depart)	Peddocks (Arrive)	Peddocks (Depart)	Georges (Arrive)	Georges (Depart)	Hingham (Arrive)
14:25	14:35	14:45	15:05	15:15	15:35	15:55	16:15	16:25	17:20

Table 45: Northern Interisland loop ferry proposed schedule.

Long Wharf (Depart)	Spectacle (Arrive)	Spectacle (Depart)	Georges (Arrive)	Georges (Depart)	Peddocks (Arrive)	Peddocks (Depart)	Long Wharf (arrive)
10:00	10:30	10:40	11:05	11:15	11:25	11:35	
	12:00	12:10	12:35	12:45	12:55	13:05	
	13:30	13:40	14:05	14:15	14:25	14:50	
	15:15	15:35	16:00	16:10	16:20	16:30	17:25

Appendix C: Ferry Boat Program Funding Estimate Memo

Background

The Boston Harbor Islands National Recreation Area (BOHA) Ferry Service and Operations Study is intended to evaluate current conditions and explore opportunities to improve the overall visitor experience of the Boston Harbor Islands ferry service. As part of the study, National Park Service (NPS) representatives requested an analysis of potential federal formula funding that would be available to the ferry system if the necessary data were provided.

FHWA Ferry Boat Program (FBP)

The Federal Highway Administration (FHWA) provides Federal-aid highway funds through the [Construction of Ferry Boats and Ferry Terminal Facilities Formula Program](#) (FBP). FBP funds are eligible for the design and construction of ferry boats; for acquiring right-of-way, designing, and constructing of ferry terminal facilities; and for operating costs of eligible entities (in accordance with Title 23, United States Code [U.S.C.], Sections [129\(c\)](#) and [147](#)).

For the NPS, the FBP is a federal assistance formula program in which funds are made available for projects through state or territorial transportation agencies as pass-through entities. Any state with an eligible entity that meets requirements will receive \$100,000 or more per fiscal year ([23 U.S.C. Section 147\(f\)](#)). Massachusetts received a total of \$4,595,059 in the FY24 FBP funding announcement, distributed between Boston Harbor City Cruises (BHCC) for their Massachusetts Bay Transportation Authority (MBTA) operations and Woods Hole Martha's Vineyard and Nantucket Steamship Authority.

BTS National Census of Ferry Operators (NCFO)

For projects to be eligible for FBP funding, the ferry system must be registered in the [National Census of Ferry Operators \(NCFO\)](#). The Bureau of Transportation Statistics (BTS) administers and maintains the NCFO, which consists of a database of existing ferry operations across the United States. While participation in the NCFO is voluntary, data must be provided by the ferry operator, which is BHCC for BOHA. The NCFO includes questions on the operator, vessels and terminals used for the service, the service route segments, and whether the service receives any public funding.

Prior to the 2022 NCFO, the NCFO was named for the year the data were collected, not the year the data represented (i.e., the 2020 NCFO collected 2019 data). From 2022 on data collections will be named for the year of the data being collected, not for the year the survey is conducted (i.e., the 2024 NCFO will collect 2024 data). Previous and future NCFO naming and data year represented is summarized in Table 46 below.

FBP funds are made available to eligible ferry systems based on the **annual number of passengers, vehicles carried, and total route nautical miles** submitted through the NCFO. The [NPS FBP Sharepoint](#) site has information and templates available to assist parks and regions with navigating the FBP process, including step-by-step guidance for how to access and expend FBP funds and correspondence templates.

For the 2022 NCFO, BTS emailed ferry service operators in May 2023 encouraging their participation. Data collection was completed in December 2023. As of June 2025, FHWA is analyzing the results and has not yet made any funding announcements based on the results from the 2022 NCFO. Typically, FHWA takes approximately two years to analyze the results before making funding announcements based on those results. The data year, census collection period, and FBP FY allocation for recent NCFOs and anticipated future NCFOs are summarized in Table 46 below.

Table 46: Recent and anticipated NCFO schedule.

NCFO	Data Year	Census Collection Period	FBP FY Allocation
2020 NCFO	2019	July – Dec 2020	FY 23 and FY 24
2022 NCFO	2022	May – Dec 2023	FY 25 and FY26
2024 NCFO	2024	Jan – Dec 2025	<i>If FBP is reauthorized: FY 27 and FY28</i>

It is expected that the 2024 NCFO will be shared with ferry service operators around May 2025 and data collection will end around December 2025. The program funding is authorized through the Bipartisan Infrastructure Law (BIL), a five-year program set to expire in FY26. If the program is reauthorized following FY26, it is expected the 2024 NCFO would be used to inform FY27 funding announcements.

This memo provides an estimate of the amount of funding BOHA could have received if BHCC completed the NCFO. This estimate is based upon funding amounts made available in recent years to systems with comparable ridership, vehicles carried, and nautical miles traveled.

Funding Estimate

If BHCC completed the 2020 NCFO, BOHA would have been eligible to receive around **\$75,000** in FY24, based on the three FBP allocation inputs: ridership, vehicles carried, and nautical miles traveled in the 2019 operating season. This estimate includes nautical miles traveled from two interisland ferry routes that are no longer in operation as of summer 2024.

To estimate potential FBP funding amounts for BOHA, the project team reviewed 2020 NCFO allocations by ferry system and selected proxy systems with data inputs comparable to BOHA’s assumed inputs. The three selected proxy ferry services were Long Beach Transit in California, Caladesi Island Ferry Service in Florida, and Cumberland Island National Seashore in Georgia. Long Beach Transit was identified as a proxy service for similar ridership, vehicles carried, and nautical miles to BOHA in 2019 including the interisland ferry service. Caladesi Island Ferry Service was identified as a proxy service for similar values for each of these variables without the interisland ferry service. Cumberland Island National Seashore was identified as proxy service for similar total nautical miles traveled with the interisland ferry service and as an example of a service that provides access to a NPS unit. Table 47 below lists ridership, vehicles, carried, nautical miles traveled, and FBP amount received for BOHA and the proxy services. The table lists these variables for BOHA both with and without the interisland ferry service.

Table 47: BOHA and peer ferry service FBP inputs based on 2019 data and allocations.

Ferry Service	Ridership	Vehicles Carried	Nautical Miles Traveled	FBP Amount Received
BOHA				
<i>With interisland service</i>	88,491	0	17,522 ⁹	N/A
<i>Without interisland service</i>	77,487	0	13,041	N/A
Proxy Services				
Long Beach Transit	93,519	0	20,710	FY23: \$77,001 FY24: \$76,000
Caladesi Island Ferry Service	76,578	0	12,830	FY23: \$84,253 FY24: \$84,570
Cumberland Island National Seashore	41,295	0	20,594	FY23: \$76,376 FY24: \$76,663

Eligible FBP Fund Uses and Match Source

Eligible projects include capital improvements necessary for, and directly attributable to, the construction of eligible vessels and terminal facilities. Examples of eligible construction activities include:

- Engineering, design, project development and management, construction project management and inspection, surveying, mapping, and architectural-related services
- Reconstruction, resurfacing, restoration, rehabilitation and preservation
- Improvements that directly facilitate and control traffic flow
- Procurement of transit vehicles used exclusively as an integral part of an intermodal ferry trip

Refer to 23 U.S.C. Section 101(a)(4) for complete definition of eligible construction activities. Further guidance is under development by NPS and will be provided to park units once completed.

FBP funds may be used to purchase new ferry vessels or perform preventative maintenance or upgrades on existing, eligible ferry infrastructure. Funds also may be used for operating costs associated with the continuous performance of the ferry boat and terminal facility. Examples of eligible operating costs include staffing, fuel, inspections, certifications, permits, administration costs, utility cost, rent, replacing

⁹ Calculations for this estimate are summarized in Appendix D: BOHA Nautical Miles Traveled Calculation.

defective equipment, and purchasing supplies. The FHWA Division Office can verify infrastructure and project eligibility for FBP funds.

The maximum Federal share for a project in any state or Puerto Rico under the FBP is 80 percent, unless the project is to replace or retrofit a diesel fuel ferry vessel which provides substantial emissions reductions, then the maximum is 85 percent. Non-federal funding match sources can be either in-kind or cash contributions. Some exceptions to the non-federal match source rule include Federal Lands Transportation Program (FLTP) funds, Federal Lands Recreation Enhancement Act (FLREA) funds, park donations, rehabilitation/repair funds, and transportation fees. Additional exceptions to the non-federal match rule are available in the [Eligible Federal-Aid Guidance Non-Federal Matching Requirements](#).

Parks should communicate with Regional Program Coordinators for the various funding sources that may serve as the 20 percent non-federal source match. Projects will be funded based on priority and funding availability. Parks will be notified of approved project funding.

FBP Funds Transfer Process

NPS units can request the direct transfer of FBP funds from FHWA directly to NPS, rather than to the state DOT. Several documents must be developed to complete the direct transfer:

- A General Agreement with the state DOT to request that funds are directly transferred to NPS
- Coordinate with the state DOT to add FBP projects to the State Transportation Improvement Plan (STIP) and Transportation Improvement Plan (TIP)
- A spending plan for each project that is ready for execution that reflects all execution expenditures and identifies all funding sources, both FBP and match, for the duration of the project

When the 20 percent match has been approved for funding, the project is ready for execution, and the project spending plan is developed, the park should ask the FHWA Division Office to initiate the funding transfer request from FHWA FBP sent as a direct transfer to the NPS, rather than to the state DOT.

The WASO Budget Office facilitates the distribution of all FBP funds to the Regions. FHWA will transfer the requested funds to NPS WASO. The Region will approve the project in PMIS. Once approved, the Region should submit the spending plan and General Agreement to the WASO Budget Office.

Data Gaps

FBP funds are allocated to each eligible ferry service by a formula prescribed in 23 U.S. Code § 147. Of the FBP funds available each fiscal year, 35 percent is allocated based on the proportion of each system's ridership to total ridership among all eligible services; another 35 percent allocated based on the proportion of the number of vehicles a service carried to total vehicles carried by all eligible services, and the final 30 percent is allocated based on the proportion of nautical miles a service traveled to total nautical miles traveled among all eligible services. However, ferry operators can indicate if they would like any portion of their NCFO submission to not be published in the publicly available results online. As a result, the total passengers, vehicles carried, and nautical miles traveled for all services that received FBP funds in FY23 and FY24 are not available, and it is not possible to determine BOHA's proportions relative to that total. For this reason, proxy services were identified to calculate an estimate for BOHA.

If FBP is reauthorized for FY27 with a similar authorization amount to BIL and a similar number of FBP-eligible ferry systems completed the 2024 NCFO as in the 2020 NCFO, it is expected that BOHA would receive less funding than the estimate above because ridership and nautical miles traveled have generally declined since 2019. However, it is not possible to predict a precise future funding amount for BOHA due to several conditions:

1. BOHA has reduced the number of routes and sailings since 2019.

In 2019, BOHA operated three direct island routes and two interisland routes, with six to eight daily departures in spring and fall, and 10 to 17 daily departures in summer. In 2024, BOHA operates only three direct island routes, with two daily departures in spring and fall, and six to 11 daily departures in summer. Given this, it is expected that nautical miles traveled in 2024 would be lower than 2019.

2. BOHA ridership has declined since 2019.

Overall ferry ridership to BOHA has declined in recent years since 2019, but at the time of this estimate, it is unknown if ridership has continued to decline in the 2024 season. As a result, there is no input to use for a funding calculation for this variable.

3. FBP reauthorization is uncertain.

It is unknown if FBP will be reauthorized following the expiration of BIL in FY26, and if so, how much the total authorization amount will be. FBP was initially authorized in the Moving Ahead for Progress in the 21st Century (MAP-21) in 2012, was reauthorized with an increased authorization amount through the Fixing America's Surface Transportation (FAST) Act in 2016, and was reauthorized with an increased authorization amount once more with BIL in 2021. Many US ferry systems have come to rely on FBP funds to construct and operate ferry boats and facilities in the past decade. Given the program's popularity, there is some expectation that it will be reauthorized, but it is not possible to estimate the total authorization amount.

4. Number of 2024 NCFO FBP-eligible respondents unknown.

It is also unknown how many ferry systems that are eligible for FBP funds will complete the 2024 NCFO. Therefore, it is unknown among how many systems the total funding amount will need to be distributed. If there are significantly more FBP-eligible systems that complete the 2024 NCFO, the amount distributed to each is expected to be lower than in FY23 and FY24 (if the total authorization amount is similar).

Appendix D: BOHA Nautical Miles Traveled Calculation

The nautical miles traveled for BOHA in 2019 was calculated for the Ferry Boat Program funding estimate memo in Appendix C: Ferry Boat Program Funding Estimate Memo. The value presented in this memo was determined by calculating the nautical miles between each route segment in the 2019 season using ArcGIS. These distances were then multiplied by the number of times that the segment was served based on the 2019 schedule [found online](#). The calculations are summarized in Table 48 below.

Table 48: Nautical miles traveled calculation.

Route Segment	Distance (Nautical Miles)	Number of Trips Completed In 2019	Total Distance Completed in 2019
Direct Island Routes			
Long Wharf – Georges Island	6.2	1,514	9,386.80
Long Wharf – Spectacle Island	3.6	798	2,872.80
Hingham – Georges Island	4.2	186	781.20
Interisland Route 1			
Long Wharf – Spectacle Island	3.6	74	266.40
Spectacle Island – Peddocks Island	4.6	148	680.80
Peddocks Island – Georges Island	1.4	222	414.40
Georges Island – Lovells Island	0.6	222	133.20
Peddocks Island – Lovells Island	2.4	74	177.60
Lovells Island – Spectacle Island	4.4	148	651.20
Spectacle Island – Georges Island	5.6	74	414.40
Peddocks – Long Wharf	8.3	74	614.20
Interisland Route 2			
Hingham – Bumpkin Island	1.9	68	129.20
Bumpkin Island – Grape Island	1.4	68	95.20
Grape Island – Hingham	0.8	102	81.60
Hingham – Peddocks Island	3.1	68	210.80
Peddocks Island – Georges Island	1.4	102	47.60
Georges Island – Lovells Island	0.6	136	102
Lovells Island – Peddocks Island	2.4	34	81.60

Route Segment	Distance (Nautical Miles)	Number of Trips Completed In 2019	Total Distance Completed in 2019
Hingham – Georges Island	4.2	34	142.80
Pedlocks Island – Grape Island	2.8	34	95.20

Total Calculations

- Total nautical miles traveled for direct island routes: **13,040.80**
- Total nautical miles traveled for interisland ferry routes: **4,481**
- Total nautical miles traveled: **17,521.80**