

1. REPORT NUMBER CA19-3505	2. GOVERNMENT ASSOCIATION NUMBER	3. RECIPIENT'S CATALOG NUMBER
4. TITLE AND SUBTITLE 2018 Census of California Water Transit Services		5. REPORT DATE 02/26/2019
		6. PERFORMING ORGANIZATION CODE
7. AUTHOR Richard Kos, Nicholas Frey, Mehedi Chowdhury		8. PERFORMING ORGANIZATION REPORT NO. CA-MTI-1809
9. PERFORMING ORGANIZATION NAME AND ADDRESS Mineta Transportation Institute College of Business San Jose State University San Jose, CA 95192-0219		10. WORK UNIT NUMBER
		11. CONTRACT OR GRANT NUMBER 65A0660
12. SPONSORING AGENCY AND ADDRESS California Department of Transportation Division of Research, Innovation, and System Information MS-83 PO Box 942873 Sacramento, CA 94273-0001		13. TYPE OF REPORT AND PERIOD COVERED Final Report
		14. SPONSORING AGENCY CODE
15. SUPPLEMENTARY NOTES		

16. ABSTRACT

The U.S. Bureau of Transportation Statistics conducts a nationwide census of ferry boat operators for the U.S. Department of Transportation and the collected information is used for statistical purposes. The Caltrans Division of Local Assistance has been asked by the Federal Highway Administration (FHWA) to gather data regarding ferry operations under the Moving Ahead for Progress in the 21st Century Act (MAP-21). MAP-21 includes a new formula program for ferry boats and ferry terminal facilities eligible under 23 USC 129(c) which authorizes federal participation in toll roads, bridges, tunnels, and ferries. FHWA has asked that Caltrans assure the ferry boat data is current for MAP-21.

The Mineta Transportation Institute was initially contacted by Caltrans to conduct this census in 2012 and a report was delivered later that year. Now the census has been completed with updates through November 2018.

The research team collected information from 25 water transportation operators throughout California and produced 42 accompanying maps that depict routes and terminals where the operators provide service. Tabular information for each operator catalogs their number of vessels, passenger counts, fares, seating capacity, route lengths and other data points. Note that a number of operators, de-spite repeated contact via phone and email, chose not to reply.

This report organizes water transportation operations into three sections based on California geography: northern California, the Sacramento Delta region; and southern California. A fourth section documents four operators who did not fall within those three geographic regions.

17. KEY WORDS Water transportation; ferry; California; census; passenger	18. DISTRIBUTION STATEMENT No Restrictions
19. SECURITY CLASSIFICATION (of this report) Unclassified	20. NUMBER OF PAGES 92
	21. COST OF REPORT CHARGED

DISCLAIMER STATEMENT

This document is disseminated in the interest of information exchange. The contents of this report reflect the views of the authors who are responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This publication does not constitute a standard, specification or regulation. This report does not constitute an endorsement by the Department of any product described herein.

For individuals with sensory disabilities, this document is available in alternate formats. For information, call (916) 654-8899, TTY 711, or write to California Department of Transportation, Division of Research, Innovation and System Information, MS-83, P.O. Box 942873, Sacramento, CA 94273-0001.



2018 Census of California Water Transit Services

Richard M. Kos, AICP
Nicholas Frey
Mehedi Chowdhury



MINETA TRANSPORTATION INSTITUTE

LEAD UNIVERSITY OF

Mineta Consortium for Transportation Mobility

Founded in 1991, the Mineta Transportation Institute (MTI), an organized research and training unit in partnership with the Lucas College and Graduate School of Business at San José State University (SJSU), increases mobility for all by improving the safety, efficiency, accessibility, and convenience of our nation's transportation system. Through research, education, workforce development, and technology transfer, we help create a connected world. MTI leads the four-university Mineta Consortium for Transportation Mobility, a Tier I University Transportation Center funded by the U.S. Department of Transportation's Office of the Assistant Secretary for Research and Technology (OST-R), the California Department of Transportation (Caltrans), and by private grants and donations.

MTI's transportation policy work is centered on three primary responsibilities:

Research

MTI works to provide policy-oriented research for all levels of government and the private sector to foster the development of optimum surface transportation systems. Research areas include: bicycle and pedestrian issues; financing public and private sector transportation improvements; intermodal connectivity and integration; safety and security of transportation systems; sustainability of transportation systems; transportation / land use / environment; and transportation planning and policy development. Certified Research Associates conduct the research. Certification requires an advanced degree, generally a Ph.D., a record of academic publications, and professional references. Research projects culminate in a peer-reviewed publication, available on TransWeb, the MTI website (<http://transweb.sjsu.edu>).

Education

The Institute supports education programs for students seeking a career in the development and operation of surface transportation systems. MTI, through San José State University, offers an AACSB-accredited Master of Science in Transportation Management and graduate certificates in Transportation Management, Transportation Security, and High-Speed Rail Management that serve to prepare the nation's transportation managers for the 21st century. With the

active assistance of the California Department of Transportation (Caltrans), MTI delivers its classes over a state-of-the-art videoconference network throughout the state of California and via webcasting beyond, allowing working transportation professionals to pursue an advanced degree regardless of their location. To meet the needs of employers seeking a diverse workforce, MTI's education program promotes enrollment to under-represented groups.

Information and Technology Transfer

MTI utilizes a diverse array of dissemination methods and media to ensure research results reach those responsible for managing change. These methods include publication, seminars, workshops, websites, social media, webinars, and other technology transfer mechanisms. Additionally, MTI promotes the availability of completed research to professional organizations and journals and works to integrate the research findings into the graduate education program. MTI's extensive collection of transportation-related publications is integrated into San José State University's world-class Martin Luther King, Jr. Library.

Disclaimer

The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the information presented herein. This document is disseminated in the interest of information exchange. The report is funded, partially or entirely, by a grant from the U.S. Department of Transportation's University Transportation Centers Program. This report does not necessarily reflect the official views or policies of the U.S. government, State of California, or the Mineta Transportation Institute, who assume no liability for the contents or use thereof. This report does not constitute a standard specification, design standard, or regulation.

REPORT 18-09

2018 CENSUS OF CALIFORNIA WATER TRANSIT SERVICES

Richard M. Kos, AICP
Nicholas Frey
Mehedi Chowdhury

February 2019

A publication of

Mineta Transportation Institute

Created by Congress in 1991

College of Business
San José State University
San José, CA 95192-0219

TECHNICAL REPORT DOCUMENTATION PAGE

1. Report No. 19-01	2. Government Accession No.	3. Recipient's Catalog No.	
4. Title and Subtitle 2018 Census of California Water Transit Services		5. Report Date February 2019	
		6. Performing Organization Code	
7. Authors Kos, Richard, https://orcid.org/0000-0002-6997-7464 Frey, Nicholas, https://orcid.org/0000-0003-4957-0103 Chowdhury, Mehedi, https://orcid.org/0000-0002-2528-2337		8. Performing Organization Report CA-MTI-1809	
9. Performing Organization Name and Address Mineta Transportation Institute College of Business San José State University San José, CA 95192-0219		10. Work Unit No.	
		11. Contract or Grant No. 65A0660	
12. Sponsoring Agency Name and Address California Department of Transportation Division of Research, Innovation and Systems Information MS-83, PO Box 942873 Sacramento, CA 94273-0001		13. Type of Report and Period Covered Final Report	
		14. Sponsoring Agency Code	
15. Supplemental Notes			
16. Abstract <p>The U.S. Bureau of Transportation Statistics conducts a nationwide census of ferry boat operators for the U.S. Department of Transportation and the collected information is used for statistical purposes. The Caltrans Division of Local Assistance has been asked by the Federal Highway Administration (FHWA) to gather data regarding ferry operations under the Moving Ahead for Progress in the 21st Century Act (MAP-21). MAP-21 includes a new formula program for ferry boats and ferry terminal facilities eligible under 23 USC 129(c) which authorizes federal participation in toll roads, bridges, tunnels, and ferries. FHWA has asked that Caltrans assure the ferry boat data is current for MAP-21.</p> <p>The Mineta Transportation Institute was initially contacted by Caltrans to conduct this census in 2012 and a report was delivered later that year. Now the census has been completed with updates through November 2018.</p> <p>The research team collected information from 25 water transportation operators throughout California and produced 42 accompanying maps that depict routes and terminals where the operators provide service. Tabular information for each operator catalogs their number of vessels, passenger counts, fares, seating capacity, route lengths and other data points. Note that a number of operators, de-spite repeated contact via phone and email, chose not to reply.</p> <p>This report organizes water transportation operations into three sections based on California geography: northern California, the Sacramento Delta region; and southern California. A fourth section documents four operators who did not fall within those three geographic regions.</p> <p>The report concludes with a listing of recreational voyage operators (e.g. cruises, fishing trips) that the authors felt did not constitute "water transportation" for the purposes of the detailed census yet may be of interest to those applying a broader definition of water transport.</p>			
17. Key Words Water transportation; ferry; california; census; passenger		18. Distribution Statement No restrictions. This document is available to the public through The National Technical Information Service, Springfield, VA 22161	
19. Security Classif. (of this report) Unclassified	20. Security Classif. (of this page) Unclassified	21. No. of Pages 79	22. Price

Copyright © 2019
by **Mineta Transportation Institute**
All rights reserved

Library of Congress Catalog Card Number:
2019933023

Mineta Transportation Institute
College of Business
San José State University
San José, CA 95192-0219

Tel: (408) 924-7560
Fax: (408) 924-7565
Email: mineta-institute@sjsu.edu

transweb.sjsu.edu

ACKNOWLEDGMENTS

We are most grateful for guidance from Bradley Mizuno of the Caltrans Division of Research. Additional Caltrans contributors include:

- Chad Riding, Division of Rail and Mass Transportation
- Ezequiel Castro, Division of Rail and Mass Transportation
- John Pagano, Division of Local Assistance
- Benjamin Loi, Division of Local Assistance
- Bill Huang, Division of Local Assistance

The authors thank MTI staff, including Executive Director Karen Philbrick, Ph.D.; Deputy Executive Director Hilary Nixon, Ph.D.; Research Support Assistant Joseph Mercado; Executive Administrative Assistant Jill Carter; and Editing Press for editorial services.

MTI provided financial support and primary funding for this research was provided by the California Department of Transportation.

DISCLAIMER

The contents of this report reflect the views of the authors, who are responsible for the facts and the accuracy of the information presented herein. This document is disseminated in the interest of information exchange. The report is funded, partially or entirely, by a grant from the California Department of Transportation which assumes no liability for the contents or use thereof.

TABLE OF CONTENTS

Executive Summary	1
I. Research Methodology	3
II. 2018 Census of Commuter and Non-Commuter Water Transportation Services in California	5
San Francisco Bay Area Water Transit Services	5
Ferry Operators on San Francisco Bay	7
Sacramento/Delta Area Water Transit Services	43
Ferry operators on the California Delta	44
Ferry Operators in Southern California	54
Additional Water Transportation Operators	69
III. Recreational Water Transit Services in California	75
About the Authors	77
Peer Review	78

LIST OF FIGURES

1. Alcatraz Cruises	8
2. Angel Island - Tiburon Ferry	10
3. Blue and Gold Fleet Overview; detailed route maps to follow	12
4. San Francisco Pier 41 - Angel Island	13
5. San Francisco Pier 41 - Sausalito	15
6. San Francisco Pier 41 - Tiburon	17
7. Golden Gate Bridge, Highway and Transportation District Ferry Overview; detailed route maps to follow	19
8. San Francisco Ferry Building - Larkspur Ferry Terminal	21
9. San Francisco Giants Stadium - Larkspur Ferry Terminal	23
10. San Francisco Ferry Building - Sausalito	24
11. San Francisco Ferry Building - Tiburon	26
12. San Francisco Water Emergency Transportation Authority Overview; detailed route maps to follow	28
13. SF Ferry Building - Harbor Way (WETA)	30
14. SF Ferry Building - Oakland, Jack London Sq. via Alameda, Main St.	32
15. San Francisco Ferry Building - Vallejo via Mare Island	34
16. San Francisco Pier 41 - San Francisco Ferry Building	36
17. South SF - Oakland, Jack London Sq. via Alameda, Main St.	38
18. San Francisco Water Taxi	40
19. Tideline	41
20. Westar Marine Service Water Taxi	42
21. Ryer Island - Grand Island	45
22. Rio Vista - Ryer Island	46

23. Venice Island - Empire Tract	47
24. Woodward Island - Upper Jones Tract	49
25. Delta Ferry Authority - Jersey Island - Bradford Island & Webb Tract	51
26. Balboa Island Ferry	55
27. Catalina Express	57
28. Catalina Flyer	59
29. Flagship Cruises	60
30. Island Packers	62
31. Long Beach Transit	63
32. Santa Barbara Water Taxi	65
33. US Water Taxi Service	66
34. Marina Del Rey Water Taxi	67
35. Avila Beach Water Taxi	68
36. Edison Queen - Hiker's Water Taxi	70
37. Havasu Landing Casino Ferry	71
38. Santa Cruz Port District Water Taxi	72
39. Yurok Ferry Service	74

LIST OF TABLES

1. Commuter and Non-Commuter Water Transit Services by Region	2
2. Summary of Commuter and Non-Commuter Water Transit Services in the San Francisco Bay Area	6
3. Summary of Commuter and Non-Commuter Water Transit Services in the Sacramento/Delta Area	43
4. Summary of Commuter and Non-Commuter Water Transit Services in Southern California	53
5. Recreational Water Transportation Operators in California	75

EXECUTIVE SUMMARY

This census provides a comprehensive assessment of current ferry operations in the state of California. This work was conducted to assist the California Department of Transportation (Caltrans) to comply with requirements in the federal MAP-21 legislation (the Moving Ahead for Progress in the 21st Century Act). MAP-21 is the first multi-year transportation authorization enacted since 2005 and funds surface transportation programs at over \$105 billion for fiscal years 2013 and 2014. The Caltrans Division of Local Assistance has been asked by the Federal Highway Administration (FHWA) to gather data regarding ferry operations under MAP-21 since the Act includes a new formula program for ferry boats and ferry terminal facilities eligible under 23 USC 129(c) which authorizes federal participation in toll roads, bridges, tunnels, and ferries. FHWA has asked that Caltrans assure the ferry data is current for MAP-21.

Our first task was to develop a complete listing of all ferry operators in the state. The research revealed that water transit vessels in California provide services beyond what is commonly considered to be traditional “ferry” operations, and this necessitated the creation of three primary classifications of water transit service: commuter, non-commuter, and water taxis. Broadly speaking:

- **commuter** services are commonly understood as “ferries” and provide essential, “point A to point B” transportation such as traditional vehicle or passenger ferries.
- **non-commuter** services also provide “point A to point B” service on a scheduled basis but are typically used for recreation and tourism purposes. An example is service to and from Alcatraz Island provided by Alcatraz Cruises, owned by Hornblower.
- **water taxis** are small vessels that transport passengers on either a fixed-route or non-fixed route basis for on-demand, short-distance trips.

Table 1 provides a summary of the water transportation services in California, organized by region listed at the left. Note that the table is as complete as possible through November 2018, considering that some operators were not forthcoming with needed data.

Table 1. Commuter and Non-Commuter Water Transit Services by Region

	Type	Total Number of Operators	Total Number of Vessels	Total Nautical Miles	Ownership (OW) / Operator Type (OP)	
					Total Number of Private	Total Number Public
San Francisco Bay Area*	Commuter	3	23	93.4	OW: 1 / OP: 2	OW: 2 / OP: 1
	Non-Commuter	2	7	2.6	OW: 1 / OP: 2	OW: 1 / OP: 0
	Water taxi	4	8	N/A	OW: 2 / OP: 3	OW: 1 / OP: 0
Sacramento/Delta*	Commuter	3	5	0.88	OW: 4 / OP: 4	OW: 2 / OP: 2
	Non-Commuter	N/A	N/A	N/A	N/A	N/A
	Water taxi	N/A	N/A	N/A	N/A	N/A
Southern California*	Commuter	5	17	206.9	OW: 4 / OP: 4	OW: 2 / OP: 2
	Non-Commuter	2	5	33	OW: 1 / OP: 1	OW: 1 / OP: 1
	Water taxi	11	27	N/A	OW: 6 / OP: 1	OW: 1 / OP: 6

* Some operators in this region provide both “Commuter” and “Non-Commuter” services and are thus double-counted; see individual operator tables for more detail. Also, some operators in this region did not respond to repeated requests for information; table entries reflect data available at the operator’s website.

Section One of this report presents an overview of the research methodology.

Section Two presents tabular summaries and detailed route maps of the water transportation services in California, organized by region, from north to south. This section constitutes the 2018 Census of Water Transit Services that the authors set out to complete.

Since our charge was to conduct an exhaustive search for all water transportation services in California, **Section Three** provides a listing of additional operators that we discovered during the development of the census; these services are classified as purely recreational in nature. Our research concluded that these services are not directly relevant to the scope and impetus for this census since they provide lake cruises, charter yachts, whale watching adventures, sport fishing, and bay-based “cruises to nowhere.” Also, none of these operators appear to offer fixed route service and all are almost exclusively recreational in nature; therefore, they did not meet the definition of “water transportation” for residents and commuters of our state. However, future researchers might wish to reference this list in terms of possibilities for providing water transportation in cases of major regional emergencies.

I. RESEARCH METHODOLOGY

Our first task was to develop a complete listing of all water transportation operators in the state. To identify an initial set of operator data, we searched the following websites: ferry-service.findthedata.org, angelislandferry.com, balboaislandferry.com, sdhe.com, google.com, takethewave.com, baycrossings.org, sanfranciscobayferry.com, watertransit.org, boatharbors.com and baylinkferry.com. Additionally, a number of website search terms proved useful: “Ferries in California”, “Association of California Ferry Operators”, “(County name) Cruises”, “(County name) Ferry Service”, “Water Taxi Services California”, and “Water Taxi Company”.

The research revealed that water transit vessels in California provide services beyond what is commonly considered to be traditional “ferry” operations, and this necessitated the creation of three primary classifications of water transit service: commuter, non-commuter, and water taxis. Broadly speaking:

- **commuter** services are commonly understood as “ferries” and provide essential, “point A to point B” transportation such as traditional vehicle or passenger ferries.
- **non-commuter** services also provide “point A to point B” service on a scheduled basis but are typically used for recreation and tourism purposes. An example is service to and from Alcatraz Island provided by Alcatraz Cruises, owned by Hornblower.
- **water taxis** are small vessels that transport passengers on either a fixed-route or non-fixed route basis for on-demand, short-distance trips.

With the three-tiered classification scheme in place, we contacted each of the water transit operators in the state of California by telephone. Most of the operators gladly participated in this census, although a few did not return our calls despite many repeated efforts and numerous e-mail follow-ups. We have noted missing information where appropriate. Wherever such roadblocks presented themselves, we gathered current information from operator websites to the best of our ability.

For each of the unique operators, we collected the information listed below. A few of these variables were not relevant to particular operators (e.g. capacity for automobiles is not relevant to “water taxis”) so those were omitted wherever appropriate.

- Type of service (commuter, non-commuter, water taxi)
- Operates within (ocean, bay, river)
- Total number of segments
- Segment name (e.g. “Angel Island to Tiburon”) and length in nautical miles
- Advertised fares and regulatory authority

- Hours of operation
- Number of vessels
- Seating capacity
- Capacity for automobiles and bicycles
- Passenger boarding statistics and daily trip counts
- Projections for future service expansion, if provided
- Ownership and operator type (public or private)
- Name and contact information for chief executive officer
- Primary contact (name, email address and/or telephone number)
- Website
- Address and latitude/longitude coordinates of terminal locations

Note that the information in this report is as complete as possible through November 2018, considering that some operators were not forthcoming with needed data.

II. 2018 CENSUS OF COMMUTER AND NON-COMMUTER WATER TRANSPORTATION SERVICES IN CALIFORNIA

This section of the report presents the results of a census that identified 25 water transportation providers in California. The data collection was conducted in October and November of 2018.

This section is organized by the three geographic regions proceeding north to south: starting with the San Francisco Bay Area, then to the Sacramento/Delta region, then to southern California. Each regional section begins with a map that presents an overview of the services in that region. Following this overview, subsequent pages present tabular summaries for each water transit operator, including detailed maps that show terminal locations and routes.

SAN FRANCISCO BAY AREA WATER TRANSIT SERVICES

There are a total of eight water transit providers in the San Francisco Bay Area. The major ones are:

- Alcatraz Cruises
- Angel Island – Tiburon Ferry Company
- Blue and Gold Fleet
- Golden Gate Bridge, Highway and Transportation District
- Water Emergency Transportation Authority

Additional, smaller operators include:

- Tideline Marine Group
- San Francisco Water Taxi Company
- Westar Marine Services Water Taxi

The eight service providers, two of which offer both commuter and non-commuter services (Angel Island-Tiburon Ferry Co. and Blue and Gold Fleet), are summarized in Table 2.

Table 2. Summary of Commuter and Non-Commuter Water Transit Services in the San Francisco Bay Area*

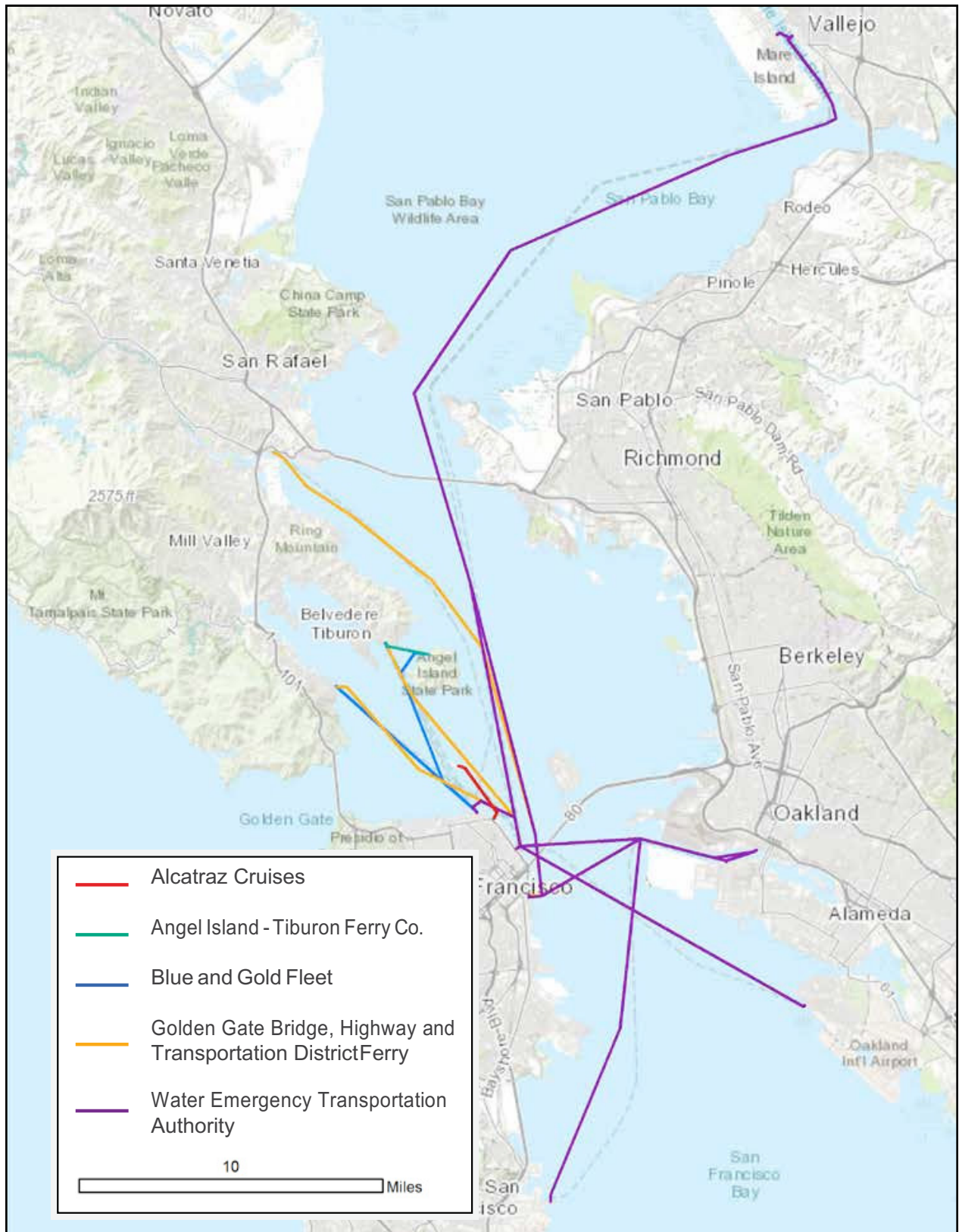
<i>Type</i>	Total Number of Operators*	Total Number of Vessels	Total Nautical Miles	Ownership (OW) / Operator Type (OP)	
				Total Number of Private	Total Number of Public
<i>Commuter</i>	3	23	93.4	OW: 1 / OP: 2	OW: 2 / OP: 1
<i>Non-Commuter</i>	2	7	2.6	OW: 1 / OP: 2	OW: 1 / OP: 0
<i>Water taxi</i>	4	8**	N/A	OW: 2 / OP: 3**	OW: 1 / OP: 0**

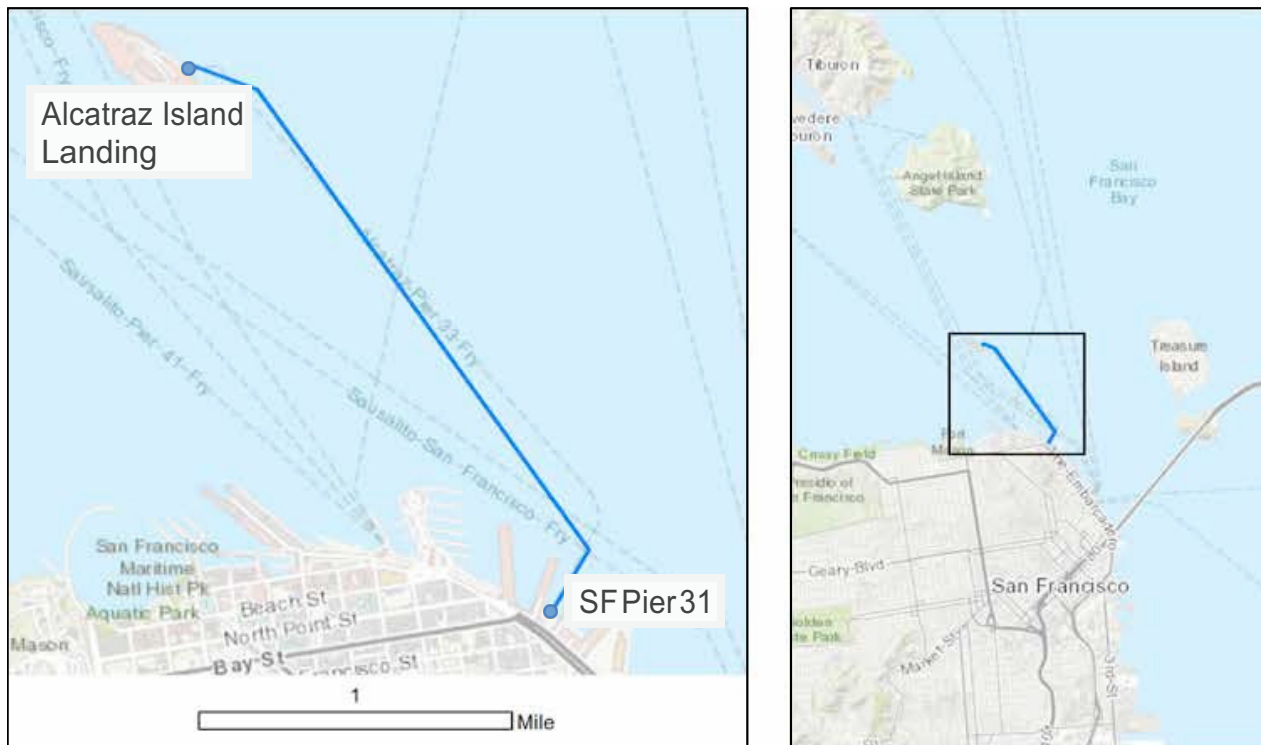
* Two operators in this region provide both “commuter” and “non-commuter” services (see individual operator tables for more detail) and thus are double-counted. There are eight unique operators in the region.

** Some operators in this region did not respond to repeated requests for information; table entries reflect data available at the operator’s website.

The figure on page 7 presents an overview of water transit services operating in the San Francisco Bay Area. Following are figures for the five primary operators, accompanied by individual route maps for each of these five operators. The section concludes with the remaining operators not captured in the five primary operator listings.

FERRY OPERATORS ON SAN FRANCISCO BAY



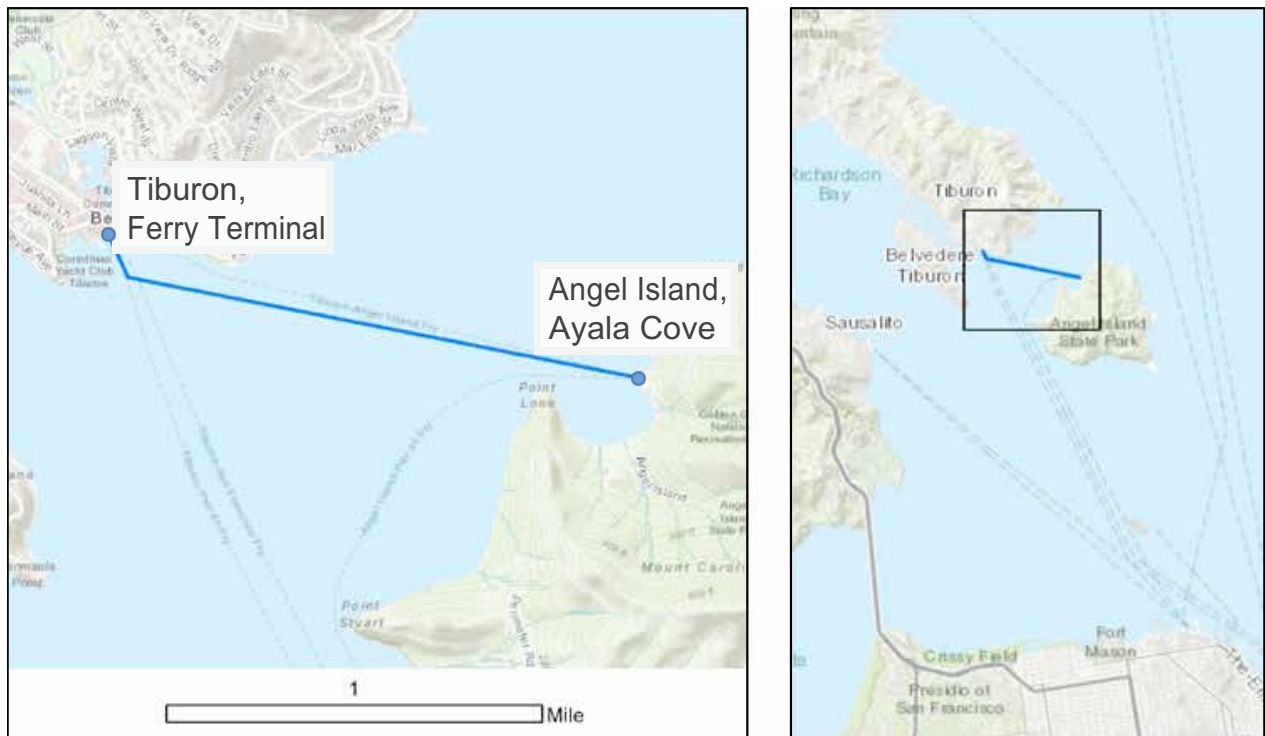


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 1. Alcatraz Cruises

Type, Water Body	Non-Commuter, SF Bay
Total Operator Segments	1
Terminal Location(s)	Pier 33, San Francisco, CA Alcatraz Island Ferry Terminal, Alcatraz Is. CA
Segment Length	1.8 miles
Advertised fares	
Early Bird R/T, Day R/T:	
Toddler (0-4)	Free
Child (5-11)	\$23.25
Jr. (12-17)	\$38
Adult (18-61)	\$38
Senior	\$35.75
Family (2 Adults & 2 Children)	\$114.75
Night Tour R/T:	
Toddler (0-4)	Free
Child (5-11)	\$26.75
Jr. (12-17)	\$44
Adult (18-61)	\$45
Senior	\$41.75

Behind the Scenes Tour R/T:	
Jr. (12-17)	\$86
Adult (18-61)	\$90
Senior	\$83.75
Alcatraz & Angel Island Tour R/T:	
Toddler (0-4)	Free
Child (5-11)	\$51
Jr. (12-17)	\$76.25
Adult (18-61)	\$76.25
Senior	\$74
Regulation	N/A
Hours of operation, Daily Trips	Mo-Su 8:45AM - 7:40PM (varies), 14 - 21 (varies)
Fall & Winter	14 R/T
Spring & Summer	21 R/T
Number of Operator Vessels	4
Vessels Operating Segment	4
	Alcatraz Clipper (127 ft.)
	Alcatraz Flyer (128 ft.)
	Hornblower Hybrid (64 ft.)
	Islander (94 ft.)
Vessel Capacity	
Seating Capacity	155 - 700 Passengers
	Alcatraz Clipper (700)
	Alcatraz Flyer (700)
	Islander (500)
	Hornblower Hybrid (155)
Vehicle Capacity	None
Bicycle Capacity	None (Bicycles Not Allowed)
Boarding statistics	1.7 Million Passengers, 7,422 R/T
Plans for future expansion	None
Owner, Operator	Public (NPS), Private (Alcatraz Cruises)
CEO	Terry MacRae
Contact	Molly Blaisdell, Press and Media
Website	https://www.alcatrazcruises.com

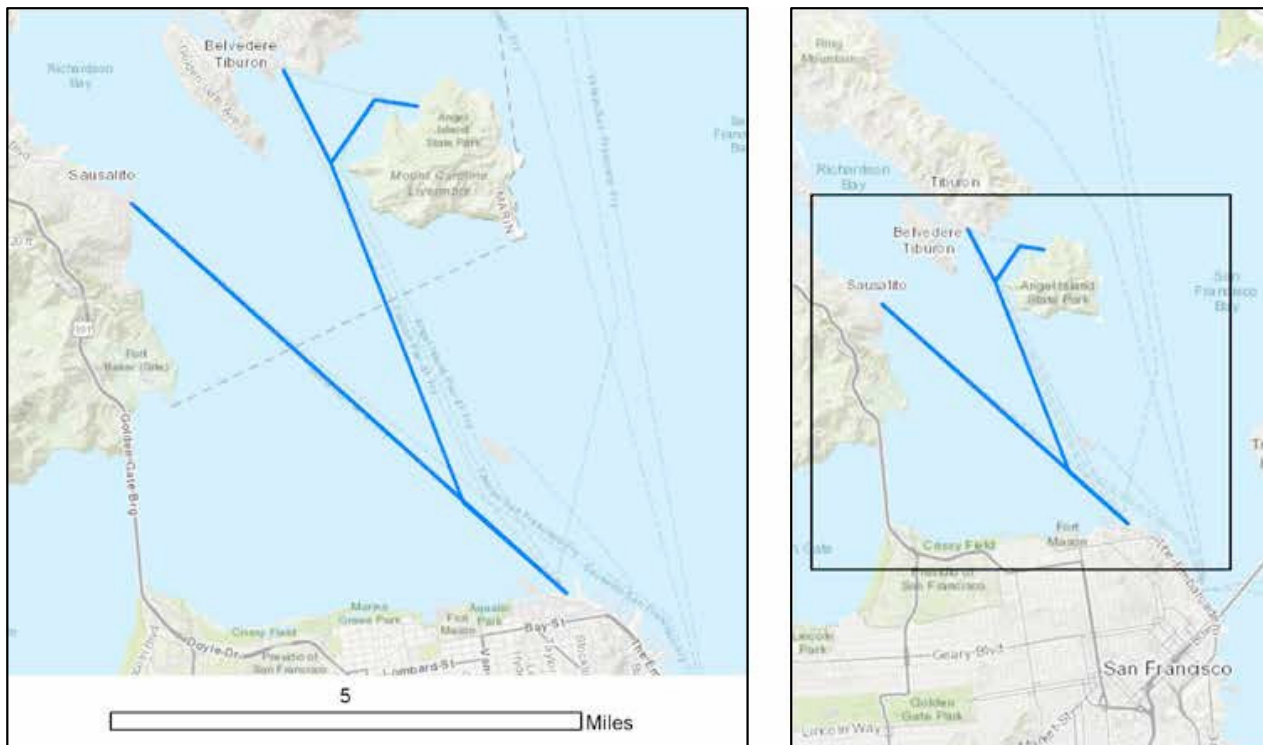


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 2. Angel Island - Tiburon Ferry

Type, Water Body	Non-Commuter, SF Bay
Total Operator Segments	1
Terminal Location(s)	Tiburon, 21 Main Street, Tiburon, CA 94920 Angel Is. Ferry Terminal, Ayala Cove Angel Is.
Segment Length	1.2 miles
Advertised fares	
Toddlers, ages 2 & under	Free (with Paying Adult)
Small Children 3-5	\$5
Children 6-12	\$13
Adults 13-64	\$15
Seniors 65 & Over	\$14
Bicycles	\$1.00
Hours of Operation, Daily Trips	Mo-Su 10:00AM - 5.20PM (varies), 0 - 8 (varies)
Jan-Feb	Mo-Fr 0, Sa-Su 4 R/T
Mar	Mo-Tu 0, We-Fr 3, Sa-Su 4 R/T
Apr	Mo-Tu 2, We-Fr 4, Sa-Su 7 R/T
May-Sep	Mo-Fr 4, Sa-Su 8 R/T
Oct	Mo-Tu 2, We-Fr 4, Sa-Su 8 R/T
Nov-Dec	Mo-Fr 0, Sa-Su 4 R/T

Regulation	California Public Utilities Commission
Number of Operator Vessels	3
Vessels Operating Segment	3
	Angel Island (65 ft)
	Bonita (60 ft)
	Tamalpais (59 ft)
Vessel Capacity	98 - 342 Passengers
Seating Capacity	Angel Island (342)
	Benita (98)
	Tamalpais (103)
Vehicle Capacity	None
Bicycle Capacity	Angel island (100)
	Bonita (20-30)
	Tamalpais (0)
Boarding statistics	60-70K Passengers Annually
Plans for future expansion	None
Owner, Operator	Private (Angel Island - Tiburon Ferry Co.), same
CEO	Maggie McDonough, Owner & Captain
Contact	Maggie McDonough, Owner & Captain
Website	https://angelislandferry.com/



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 3. Blue and Gold Fleet Overview; detailed route maps to follow

Type, Water Body	Commuter, SF Bay
Total Operator Segments	3
Terminal Location(s)	Pier 41 San Francisco, CA Larkspur Ferry Terminal Sausalito Ferry Terminal Tiburon Ferry Terminal
Segment Length	5 Mi, 20 minutes
Advertised fares	Free - \$12.50
Regulation	California Public Utilities Commission
Hours of operation	Mo-Su 5:45AM-9:15PM
Number of Operator Vessels	4
Vessel Capacity	149 - 788 Passengers, Varies
Boarding statistics	625,000 Passengers
Plans for future expansion	No
Owner, Operator	Private (B&G), Same
CEO	Patrick Murphy, President
Contact	publicrelations@blueandgoldfleet.com
Website	https://www.blueandgoldfleet.com/

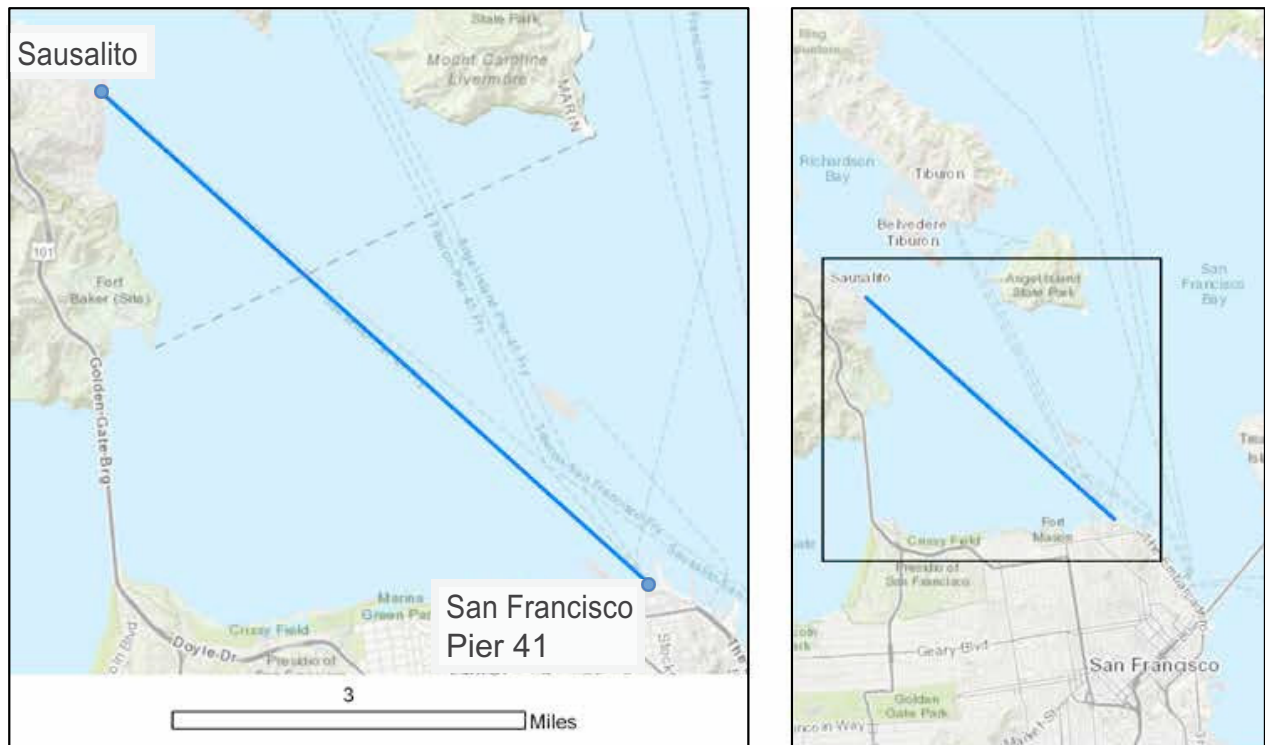


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 4. San Francisco Pier 41 - Angel Island (Blue and Gold Fleet)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	3
Terminal Location(s)	Pier 41, San Francisco, CA Angel Is. Ferry Terminal, Ayala Cove Angel Is.
Segment Length	5 Mi, 20 minutes
Advertised fares	
Children under 5	Free
Adult	\$9.75
Child (5-11)	\$5.50
Senior (65&+)	\$5.50
Hours of operation, Daily Trips	Mo-Fr 9:45am-4:45pm; Sa-Su 9:45am-5:25pm
Mo-Fr	3 R/T 1 Arr. SF Pier 41
Sa-Su / Holiday	2 R/T 2 Arr. SF Pier 41
Number of Operator Vessels	4
Vessels Operating Segment	2
	Bay Monarch
	Zelinsky

Vessel Capacity	400-788 Passengers
Seating Capacity	Bay Monarch (788)
	Zelinsky (400)
Vehicle Capacity	None
Bicycle Capacity	Accommodates bikes
Boarding statistics	100,000 Annual Passengers
Plans for future expansion	No



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 5. San Francisco Pier 41 - Sausalito (Blue and Gold Fleet)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	3
Terminal Location(s)	Pier 41, San Francisco, CA Sausalito Ferry Terminal, Humboldt & Anchor Street, Sausalito, CA
Segment Length	5 miles, 20 minutes
Advertised fares	
Children under 5	Free
Adult	\$12.50
Child (5-11)	\$7.50
Senior (65&+)	\$7.50
Hours of operation, Daily Trips	Mo-Fr 11:20am-6:25pm; Sa-Su 11:10am-7:55pm
Mo-Fr	4 R/T
Sa-Su	6 R/T
Number of Operator Vessels	4
Vessels Operating Segment	2
	Royal Star
	Zelinsky

Vessel Capacity	400-650 Passengers
Seating Capacity	Royal Star (650)
	Zelinsky (400)
Vehicle Capacity	None
Bicycle Capacity	Accommodates bikes
Boarding statistics	250,000 Annual Passengers
Plans for future expansion	No

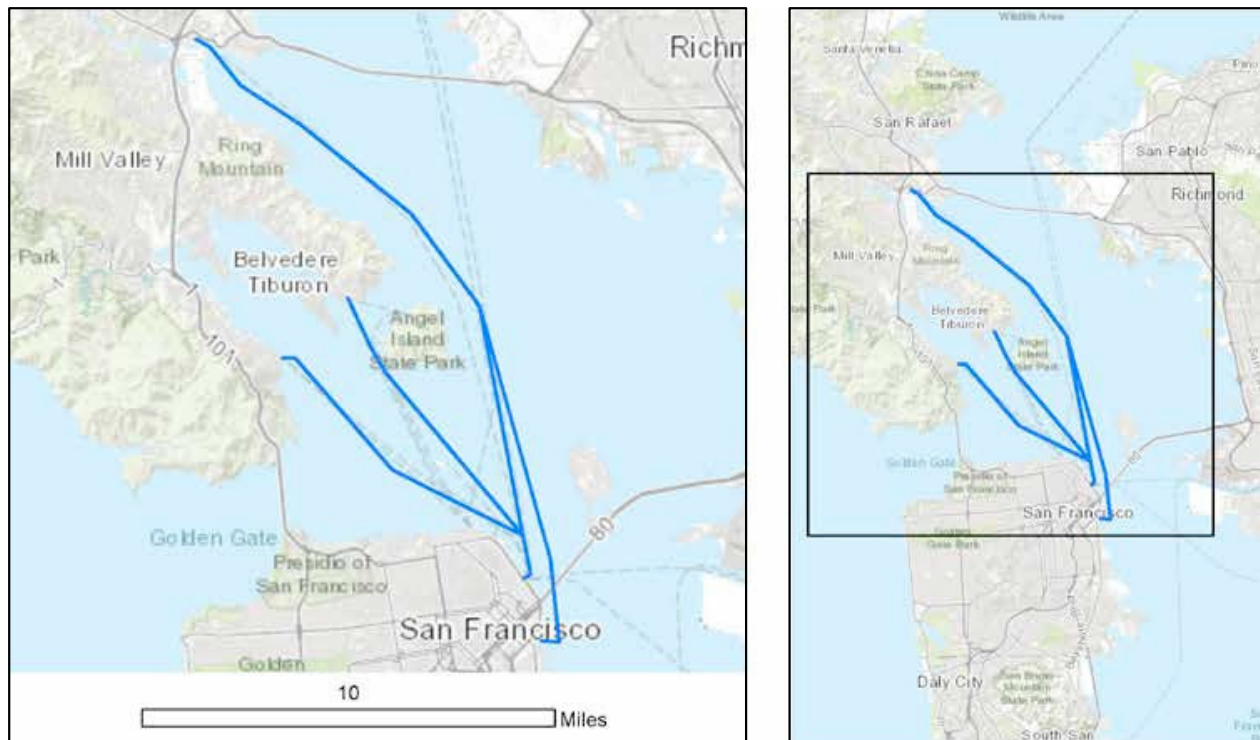


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 6. San Francisco Pier 41 - Tiburon (Blue and Gold Fleet)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	3
Terminal Location(s)	Pier 41, San Francisco, CA Tiburon Ferry Terminal, 21 Main Street, Tiburon, CA 94920
Segment Length	5 miles, 20 minutes
Advertised fares	
Children under 5	Free
Adult	\$12.50
Child (5-11)	\$7.50
Senior (65&+)	\$7.50
Hours of operation, Daily Trips	Mo-Fr 9:45am-9:15pm; Sa-Su 11:20am-9:15pm
Mo-Fr	6 R/T
Sa-Su	7 R/T
Number of Operator Vessels	4
Vessels Operating Segment	3
	Bay Monarch
	Gemini
	Zelinsky

Vessel Capacity	149-788 Passengers
Seating Capacity	Bay Monarch (788)
	Gemini (149)
	Zelinsky (400)
Vehicle Capacity	None
Bicycle Capacity	Accommodates bikes
Boarding statistics	275,000 Annual Passengers
Plans for future expansion	No

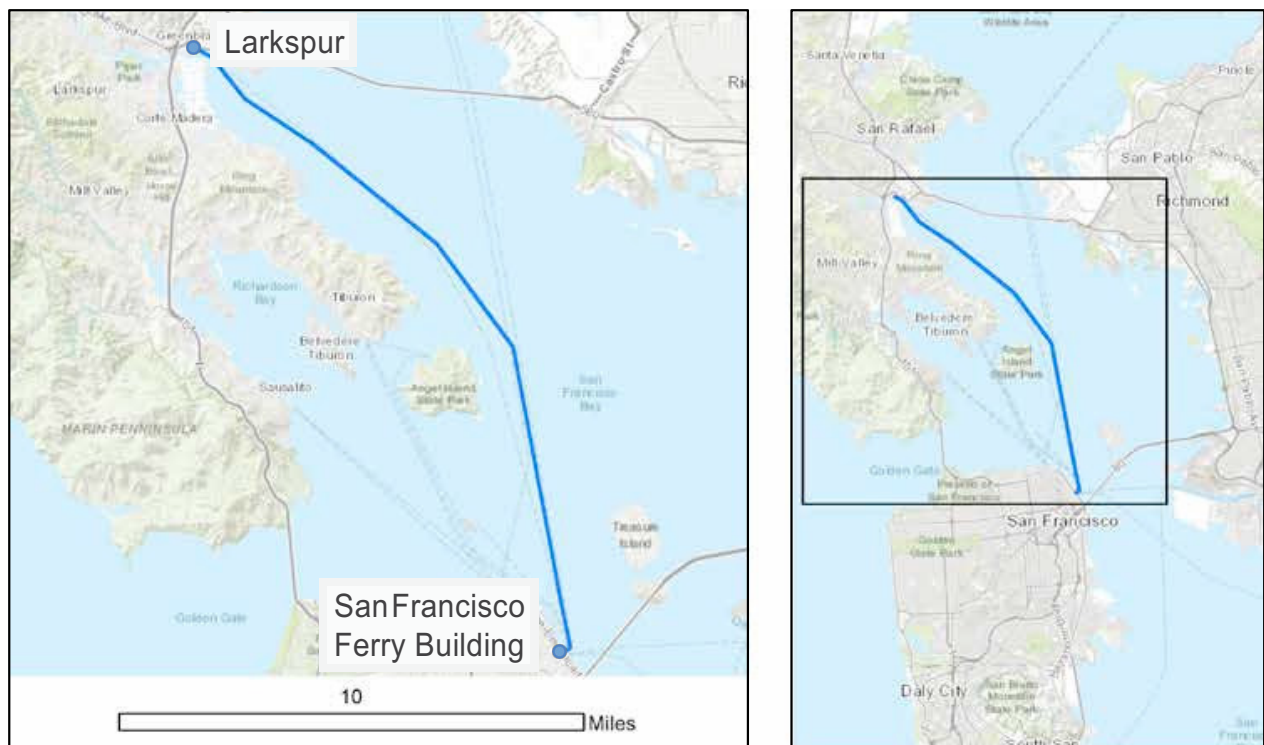


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 7. Golden Gate Bridge, Highway and Transportation District Ferry Overview; detailed route maps to follow

Type, Water Body	Commuter, SF Bay
Total Operator Segments	4
Terminal Location(s)	Ferry Building, San Francisco, CA Larkspur Ferry Terminal Sausalito Ferry Terminal Tiburon Ferry Terminal AT&T Park, San Francisco, CA
Segment Length	6.3 - 14.5 miles, Varies
Advertised fares	Free - \$13.50 Varies
Regulation	California Public Utilities Commission
Hours of operation	Mo-Fr 5:45AM-10:05PM; Sa-Su 9:40AM-8:10PM
Number of Operator Vessels	7
Vessel Capacity	400 - 750 Passengers, Varies
Boarding statistics	258,9471 Passengers 2017 FY, 13,759 Avg. Mo. bikes
Plans for future expansion	Yes, increased number of trips
Owner, Operator	Public (GGT), Same
CEO	District Board of Directors

Contact	Colin McDermott, Dir. of Op. Golden Gate Ferry
Website	http://goldengateferry.org/

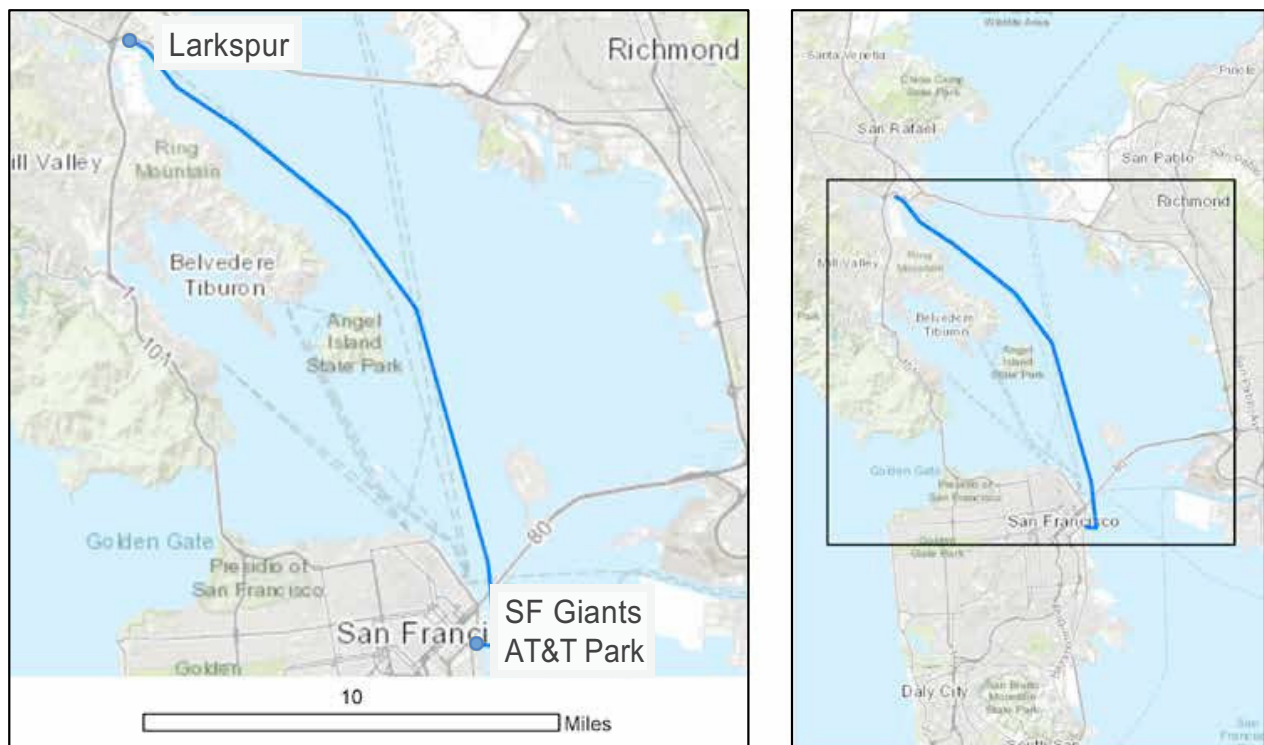


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 8. San Francisco Ferry Building - Larkspur Ferry Terminal (GGT)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	4
Terminal Location(s)	Ferry Building, San Francisco, CA Larkspur Ferry Terminal, 101 E. Sir Francis Drake Blvd. Larkspur, CA
Segment Length	12.95 miles, 30 minutes
Advertised fares	
Children (4 & under)	Free
Adult (19-64)	\$12.00
Senior (65 & Over) / Medicare / Disabled / Youth (5-18)	\$6.00
Clipper	\$7.75
Hours of operation, Daily Trips	Mo-Fr 5:45AM-10:05PM; Sa-Su 9:40AM-8:10PM
Mo-Fr	20 R/T
Sa-Su	4 R/T
Number of Operator Vessels	7
Vessels Operating Segment	4, Typically Multi-Hull / High Speed M.V. Del Norte (135 ft.) M.V. Mendocino (141 ft.)

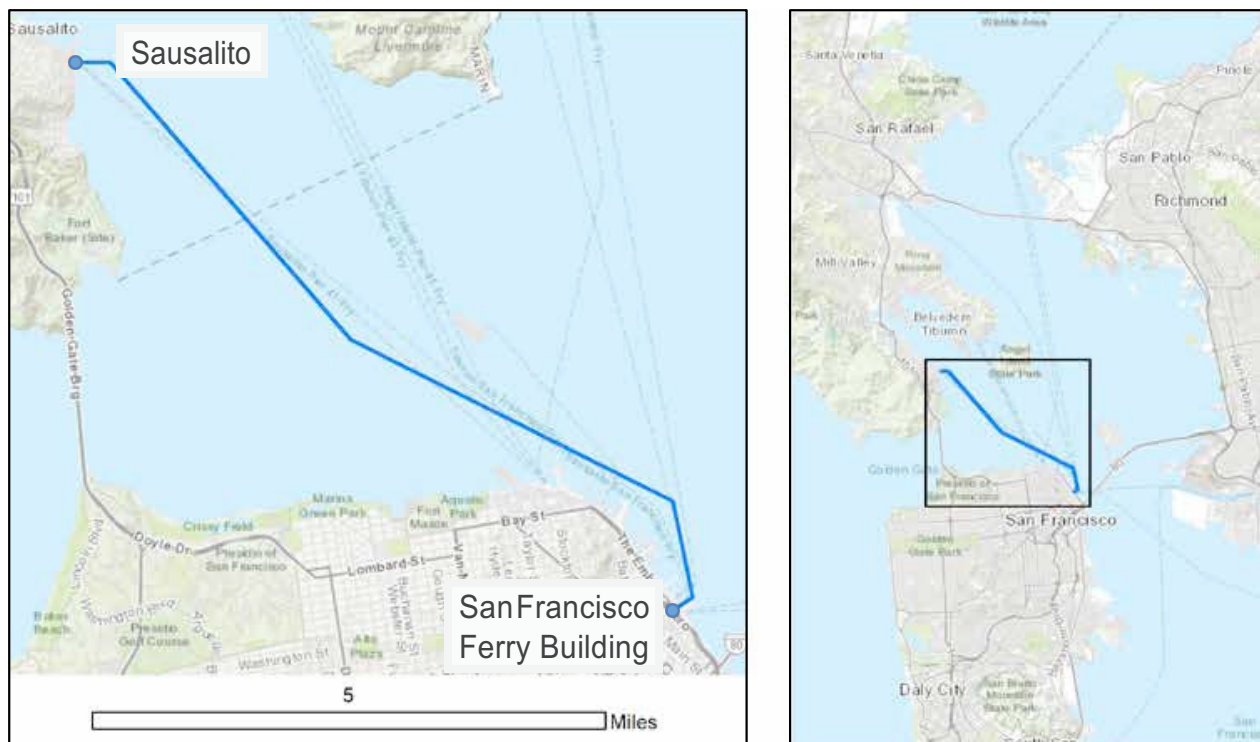
	M.V. Napa (143 ft.)
	M.V. Golden Gate (143 ft.)
Vessel Capacity	400-450 Passengers, 15 bikes
Seating Capacity	M.V. Del Norte (400)
	M.V. Mendocino (450)
	M.V. Napa (450)
	M.V. Golden Gate (450)
Vehicle Capacity	None
Bicycle Capacity	M.V. Del Norte (15)
	M.V. Mendocino (15)
	M.V. Napa (15)
	M.V. Golden Gate (15)
Boarding statistics	1,692,741 Passengers 2017 FY, 2984 Avg. Mo. bikes
Plans for future expansion	Yes, increased number of trips



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 9. San Francisco Giants Stadium - Larkspur Ferry Terminal (GGT)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	4
Terminal Location(s)	Larkspur Ferry Terminal, 101 E. Sir Francis Drake Blvd. Larkspur, CA AT&T Park Ferry Terminal, San Francisco CA
Segment Length	6.84 miles, 40-50 minutes
Advertised fares	
Children (4 & under)	Free
Adult (19-64)	\$12.50
Senior (65) / Medicare / Disabled / Youth (5-18)	\$6.25
Clipper	\$7.00
Hours of operation, Daily Trips	Before and after Giants Games & Special Events, typically 1 R/T approximately 90 days/yr
Number of Operator Vessels	7
Vessels Operating Segment	1, varies based on vessel availability
Vessel Capacity	Varies based on vessel availability
Boarding statistics	61,394 2017 Fiscal Year Data (service commenced March 6, 2017), Negligible Monthly bikes
Plans for future expansion	Yes, increased trips, esp. to serve Chase Center

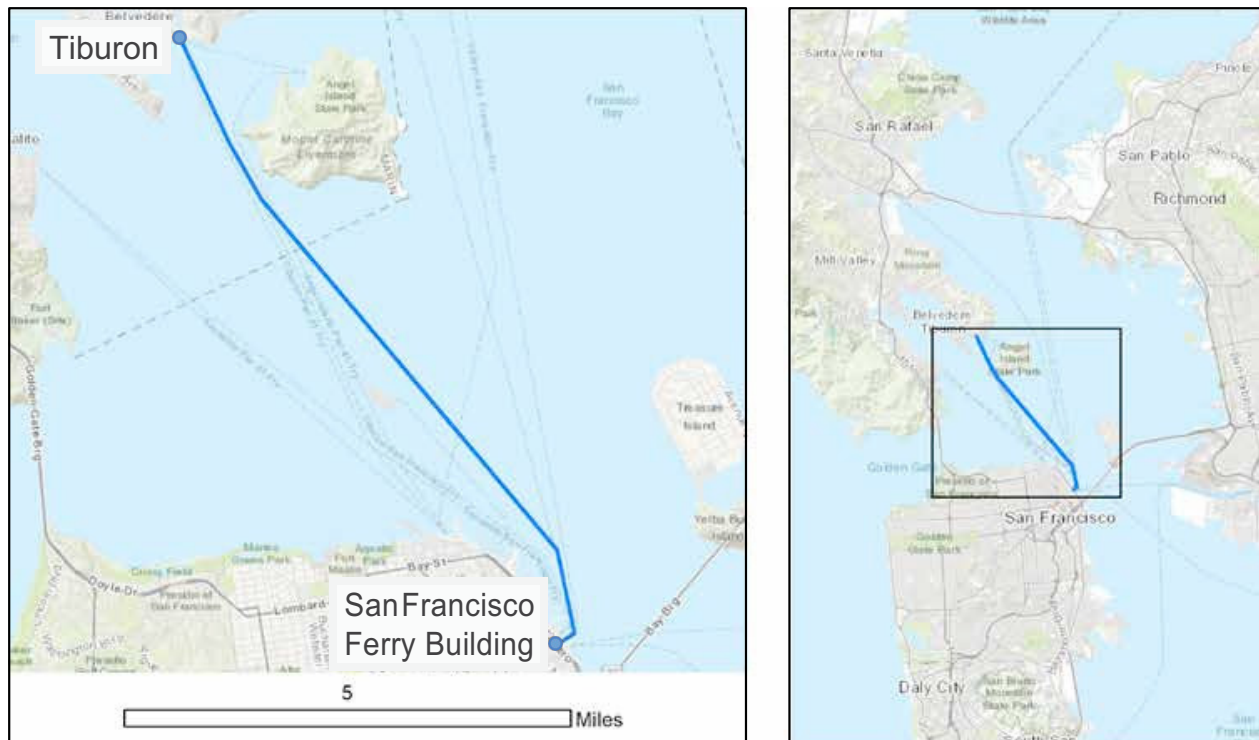


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 10. San Francisco Ferry Building - Sausalito (GGT)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	4
Terminal Location(s)	Ferry Building, San Francisco, CA Sausalito Ferry Terminal, Humboldt & Anchor Street, Sausalito, CA
Segment Length	6.33 miles, 40-50 minutes
Advertised fares	
Children (4 & under)	Free
Adult (19-64)	\$12.00
Senior (65) / Medicare / Disabled / Youth (5-18)	\$6.25
Clipper	\$6.75
Hours of operation, Daily Trips	Mo-Fr 7:10AM-8:20PM; Sa-Su 10:40AM-7:15PM
Mo-Fr	8 R/T
Sa-Su	6 R/T
Number of Operator Vessels	7
Vessels Operating Segment	4, Typically Mono-Hull M.S. Golden Gate (115 ft.) M.S. Marin (169 ft.)

	M.S. Sonoma (169 ft.)
	M.S. San Francisco (169 ft.)
Vessel Capacity	575-750 Passengers, 25 - 100 bikes
Seating Capacity	M.S. Golden Gate (575)
	M.S. Marin (750)
	M.S. Sonoma (630)
	M.S. San Francisco (630)
Vehicle Capacity	None
Bicycle Capacity	M.S. Golden Gate (Allowed)
	M.S. Marin (100
	M.S. Sonoma (25)
	M.S. San Francisco (25)
Boarding statistics	768,942 Annual Passengers, 10,775 Monthly bikes
Plans for future expansion	None



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 11. San Francisco Ferry Building - Tiburon (GGT)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	4
Terminal Location(s)	Ferry Building, San Francisco, CA Tiburon Ferry Terminal, 21 Main Street, Tiburon, CA 94920
Segment Length	6.84 miles, 40-50 minutes
Advertised fares	
Children (4 & under)	Free
Adult (19-64)	\$12.50
Senior (65) / Medicare / Disabled / Youth (5-18)	\$6.25
Clipper	\$7.00
Hours of operation, Daily Trips	Mo-Fr 5:30AM - 8:35PM
Mo-Fr	7 R/T
Sa-Su	0 R/T
Number of Operator Vessels	7
Vessels Operating Segment	4, Typically Mono-Hull M.S. Golden Gate (115 ft.) M.S. Marin (169 ft.)

	M.S. Sonoma (169 ft.)
	M.S. San Francisco (169 ft.)
Vessel Capacity	575-750 Passengers, 25 - 100 bikes
Seating Capacity	M.S. Golden Gate (575)
	M.S. Marin (750)
	M.S. Sonoma (630)
	M.S. San Francisco (630)
Vehicle Capacity	None
Bicycle Capacity	M.S. Golden Gate (Allowed)
	M.S. Marin (100)
	M.S. Sonoma (25)
	M.S. San Francisco (25)
Boarding statistics	61,394 Passengers 2017 Fiscal Year Data (service commenced March 6, 2017), Negligible Monthly bikes
Plans for future expansion	None

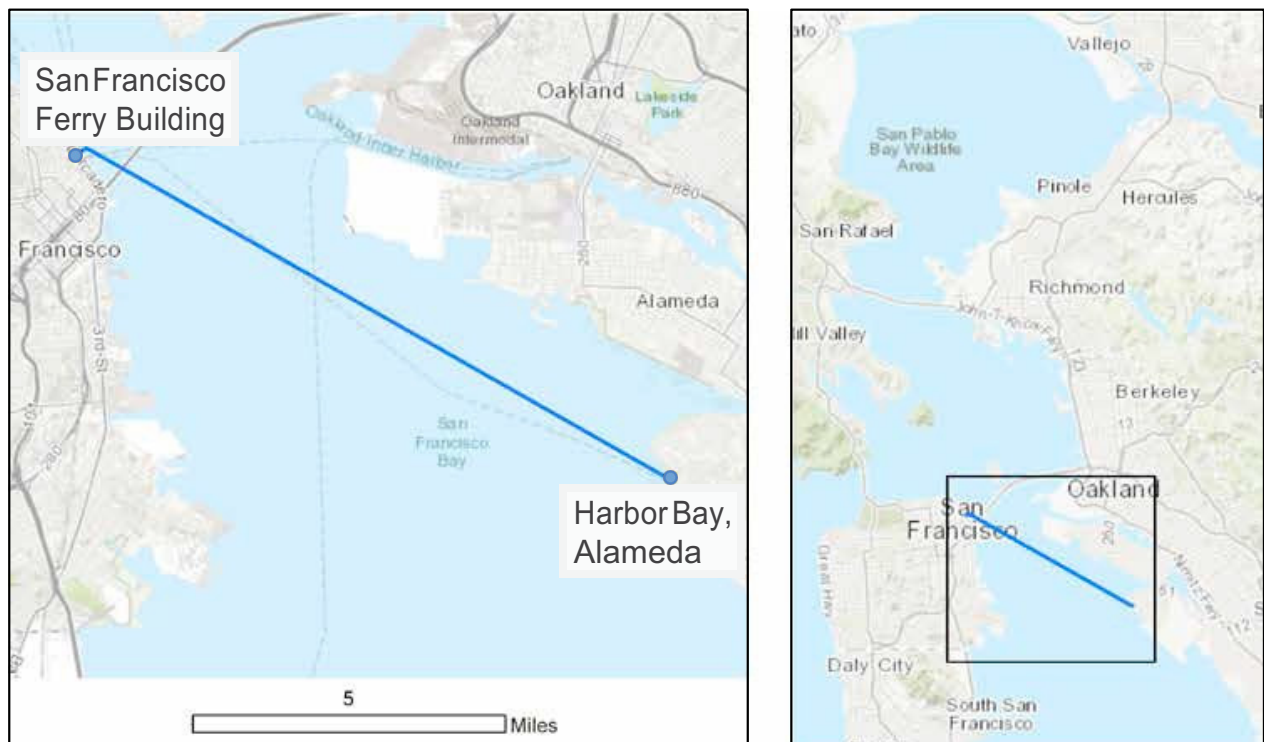


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 12. San Francisco Water Emergency Transportation Authority (WETA) Overview; detailed route maps to follow

Type, Water Body	Commuter, SF Bay
Total Operator Segments	9
Terminal Location(s)	Ferry Building, San Francisco, CA SF Pier 41 Terminal, San Francisco AT&T Park Terminal, San Francisco Jack London Sq. Terminal, Oakland Main St. Terminal, Alameda Harbor Bay Ferry Terminal, Alameda Vallejo Terminal, Vallejo Mare Island Terminal, Vallejo South SF Terminal, South San Francisco
Segment Length	7.5 - 26 miles, 25 - 60 minutes., Varies
Advertised fares	\$0.80 - \$14.60, Varies
Regulation	Self Regulated
Hours of operation	Mo-Fr 6:00AM - 9:25PM Sa-Su 9:45AM - 8:10PM
Number of Operator Vessels	12
Vessel Capacity	199 - 445 Passengers, Varies

Boarding statistics	3.1 Million Passengers Annually
Plans for future expansion	Yes, increased number of trips and terminals
Owner, Operator	Public (Water Emergency Transit Authority, WETA), Private (Blue and Gold Fleet)
CEO	Nina Rannells, Executive Director
Contact	Thomas Hall, Public Information & Marketing
Website	https://weta.sanfranciscobayferry.com

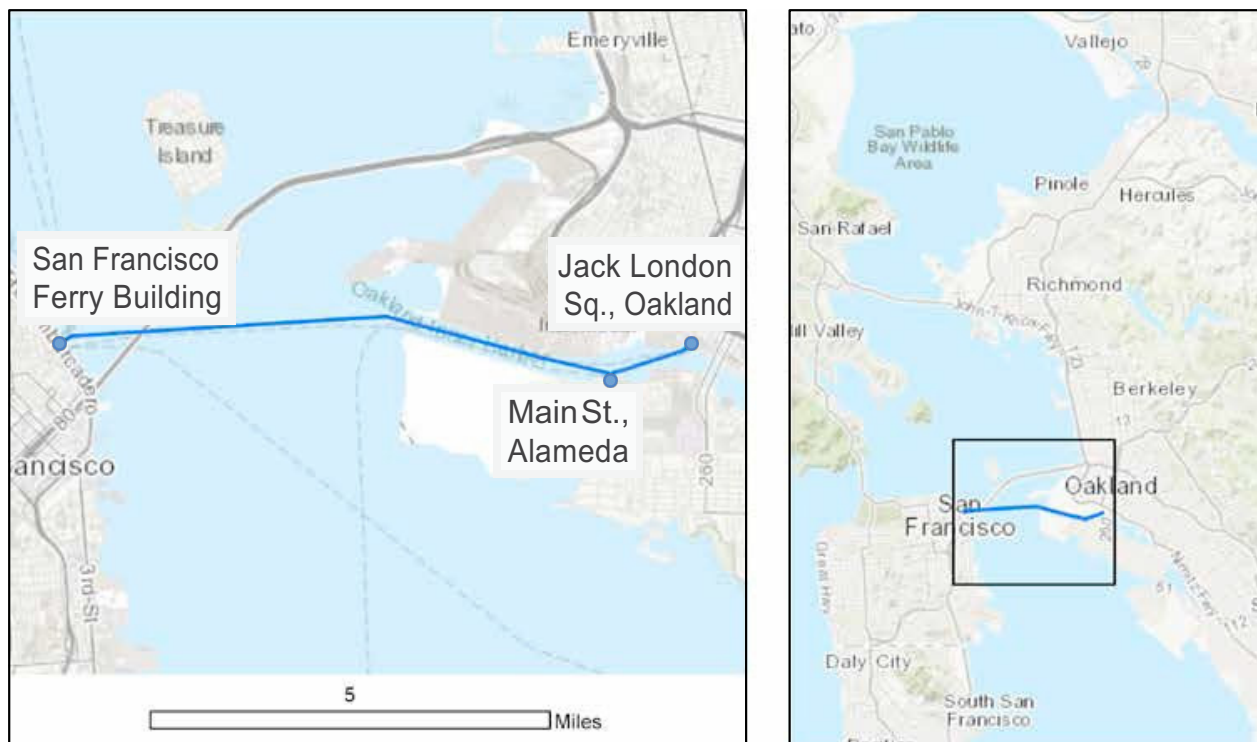


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 13. SF Ferry Building - Harbor Way (WETA)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	9
Terminal Location(s)	Ferry Building, San Francisco, CA Harbor Bay Ferry Terminal, 215 Adelphian Way, Alameda, CA 94502
Segment Length	8.5 miles, 25 minutes
Advertised fares	
Adult (cash fare)	\$7.30
Adult Clipper Card	\$5.50
Youth (5-18 years), Seniors (65 & over), Disabled	\$3.60
Children (5 & under)	FREE (when accompanied by an adult)
School Groups	\$2.40
Hours of operation, Daily Trips	Mo-Fr 6:30AM - 7:30PM, Sa-Su 0
Mo-Fr	7 R/T
Sa-Su	0
Number of Operator Vessels	12
Vessels Operating Segment	4

	Intintoli (135.5ft.)
	Mare Island (135.5ft.)
	Solano (135.5ft.)
	Vallejo (110.6ft.)
Vessel Capacity	267 - 349 Passengers, 10 bikes
Seating Capacity	Intintoli (349)
	Mare Island (330)
	Solano (320)
	Vallejo (267)
Vehicle Capacity	None
Bicycle Capacity	Intintoli (10)
	Mare Island (10)
	Solano (10)
	Vallejo (10)
Boarding statistics	266,304 Passengers (2014-15)
Plans for future expansion	None



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 14. SF Ferry Building - Oakland, Jack London Sq. via Alameda, Main St. (WETA)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	9
Terminal Location(s)	Ferry Building, San Francisco, CA Jack London Sq. Terminal, Oakland, 10 Clay St, Oakland, CA Alameda Main Street Terminal, 2990 Main St, Alameda, CA
Segment Length	8 miles, 25 minutes.
Advertised fares	
Adult	\$7
Adult Clipper Card	\$5.50
Youth (5-18 years)	\$3.50
Seniors (65 & over), Disabled	\$3.50
Children (5 & under)	FREE (when accompanied by an adult)
School groups	\$2.30
Short Hop (disembark Alameda) Adult	\$1.70
Short Hop (disembark Alameda) Youth, Senior, Disabled	\$0.80

Hours of operation, Daily Trips	Mo-Fr 6:00AM - 9:25PM, Sa-Su 9:45AM - 8:10PM
Mo-Fr	20 arv. SF, 22 arv. OAK
Sa-Su	7 R/T
Number of Operator Vessels	12
Vessels Operating Segment	4
	Peralta (121.4 ft.)
	Encinal (89.9 ft.)
	Gemini (117.8ft.)
	Taurus (117.8ft.)
Vessel Capacity	199 - 395 Passengers, 20 - 34 bikes
Seating Capacity	Peralta (331)
	Encinal (395)
	Gemini (225)
	Taurus (199)
Vehicle Capacity	None
Bicycle Capacity	Peralta (20)
	Encinal (20)
	Gemini (34)
	Taurus (34)
Boarding statistics	Annual (2014-15) Passengers 911,473 (Oakland and Alameda Main St.)
Plans for future expansion	None

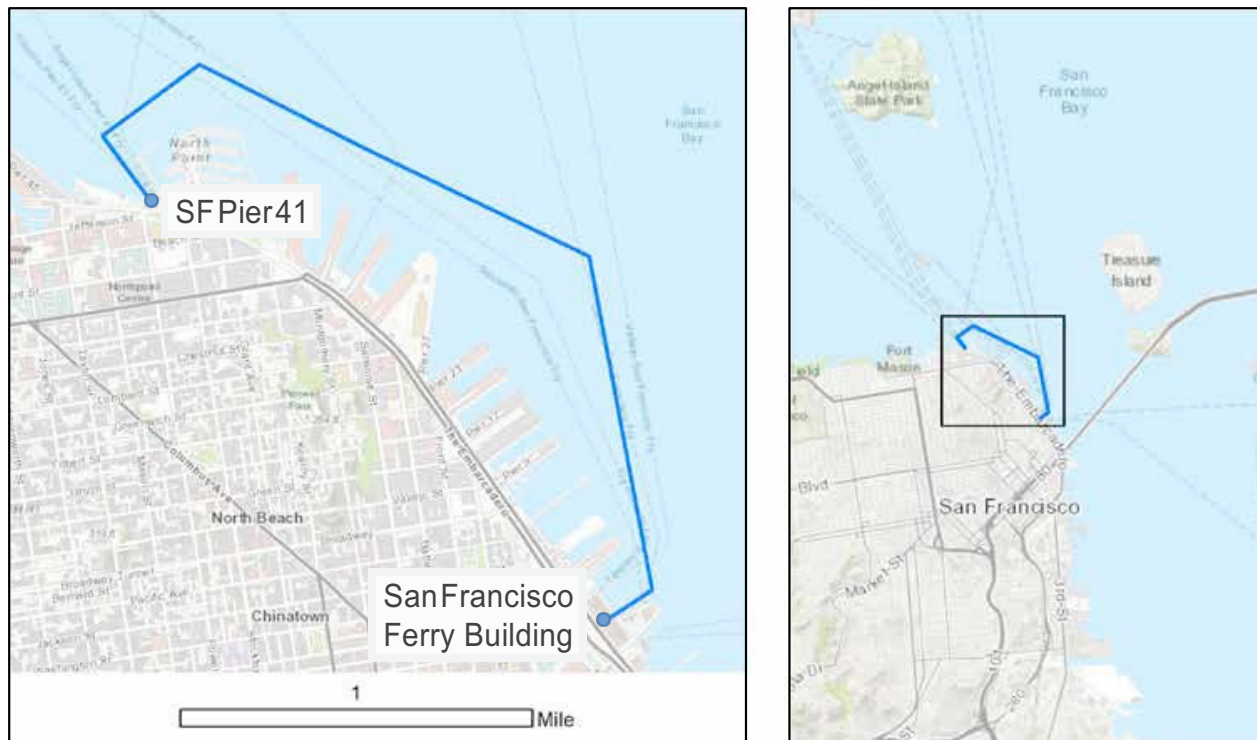


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 15. San Francisco Ferry Building - Vallejo via Mare Island (WETA)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	9
Terminal Location(s)	Ferry Building,, San Francisco, CA Vallejo Terminal, 289 Mare Island Way, Vallejo, CA 94590 Mare Island Terminal, 1050 Nimitz Avenue, Vallejo, CA 94592
Segment Length	26 miles, 55 minutes
Advertised fares	
Adult	\$14.60
Adult Clipper Card	\$11.00
Youth (5-18)	\$7.30
Seniors (65&+), Disabled	\$7.30
Children (5 & under)	FREE (when accompanied by an adult)
Short Hop (disembark Mare Island)	\$1.70
Short Hop (disembark Mare Island) Youth, Senior, Disabled	\$0.80
Monthly Pass	\$366
School groups	\$4.80

Hours of operation, Daily Trips	Mo-Fr 5:10AM - 7:10 PM, Sa-Su 10AM - 6:30PM
Mo-Fr,	14 arv. SF, 13 arv. VAL
Sa-Su	5 R/T
Number of Operator Vessels	12
Vessels Operating Segment	4
	Intintoli (135.5ft.)
	Mare Island (135.5ft.)
	Solano (135.5ft.)
	Vallejo (110.6ft.)
Vessel Capacity	267 - 349 Passengers, 10 bikes
Seating Capacity	Intintoli (349)
	Mare Island (330)
	Solano (320)
	Vallejo (267)
Vehicle Capacity	None
Bicycle Capacity	Intintoli (10)
	Mare Island (10)
	Solano (10)
	Vallejo (10)
Boarding statistics	Annual (2014-15) Passengers 858,665 (Vallejo and Mare Island)
Plans for future expansion	None



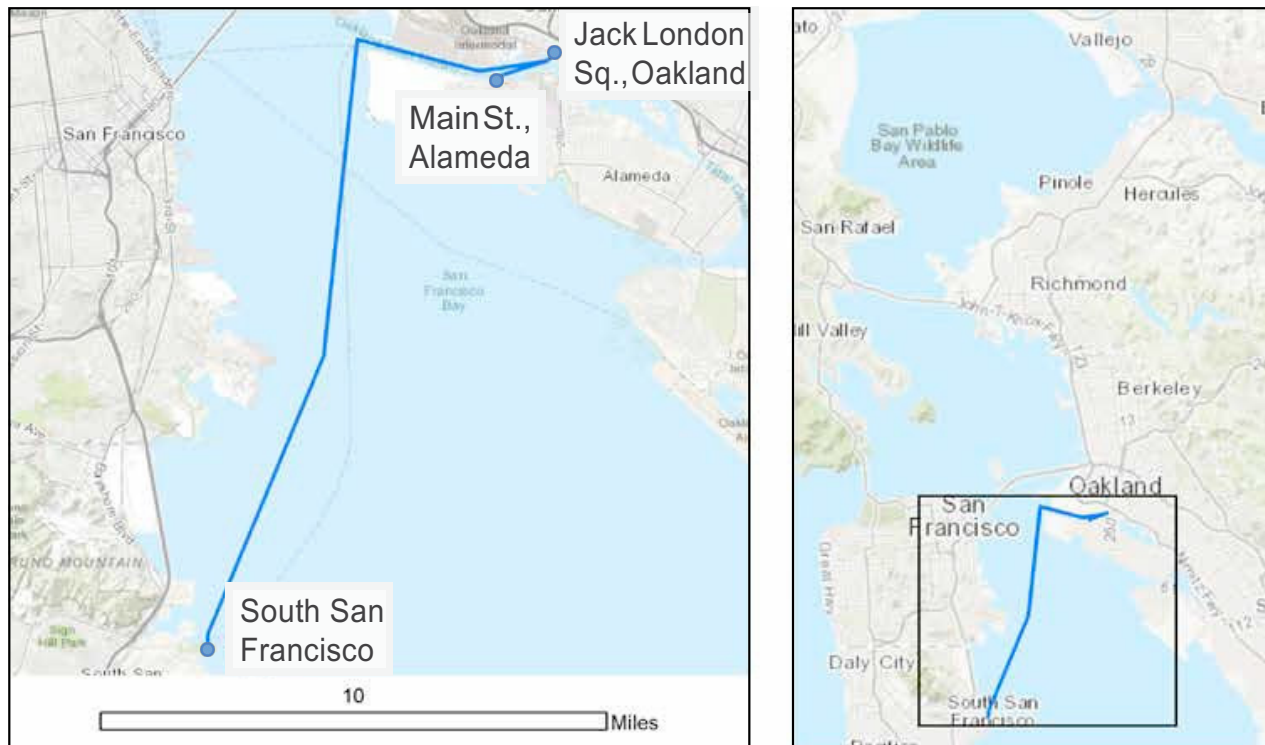
Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 16. San Francisco Pier 41 - San Francisco Ferry Building (WETA)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	9
Terminal Location(s)	Pier 41, San Francisco, CA Ferry Building, San Francisco, CA
Segment Length	2 miles
Advertised fares	
Children under 5	Free
Short Hop (disembark SF Pier 41 or SF Ferry Building)	\$1.70
Short Hop (disembark SF Pier 41 or SF Ferry Building) Senior, Disabled	\$0.80
Hours of operation, Daily Trips	Mo-Fr 10:50am-8:05pm; Sa-Su 10:25am-6:50pm
Mo-Fr	7 arv. SF Pier 41, 8 arv. SF Ferry Building
Sa-Su	9 arv. SF Pier 41, 9 arv. SF Ferry Building
Number of Operator Vessels	12
Vessels Operating Segment	Varies
Vessel Capacity	Varies

Seating Capacity	Varies
Vehicle Capacity	None
Bicycle Capacity	Varies
Boarding statistics	N/A
Plans for future expansion	None

Note: This segment operates as a subsegment of several WETA routes, serving as an secondary terminal in San Francisco in addition to the SF Ferry Building. The route therefore exists only as a service augmentation to the main WETA Routes: SF Ferry Building to Oakland / Alameda and SF Ferry Building to Vallejo / Mare Island.. Times and vessels are based on the schedules of these other WETA Routes.

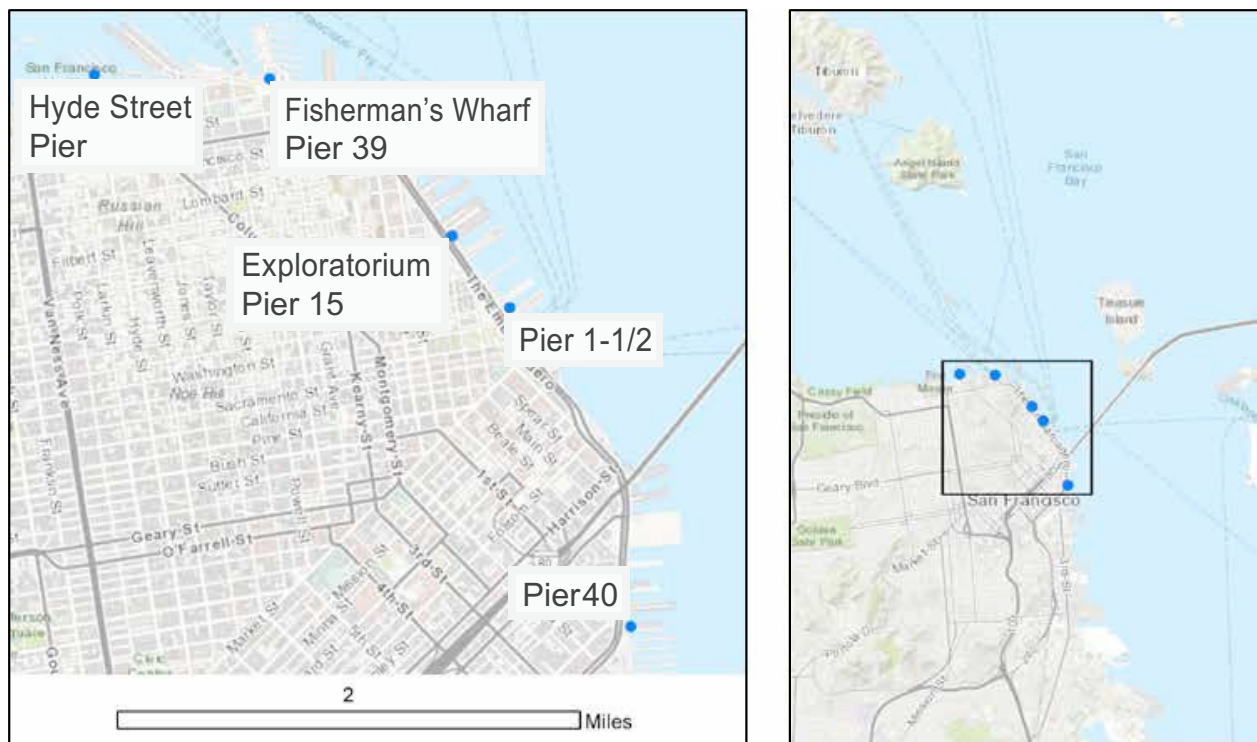


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 17. South SF - Oakland, Jack London Sq. via Alameda, Main St. (WETA)

Type, Water Body	Commuter, SF Bay
Total Operator Segments	9
Terminal Location(s)	South San Francisco Terminal, 911 Marina Blvd., South San Francisco, CA 94080 Jack London Sq. Terminal, Oakland, 10 Clay St, Oakland, CA Alameda Main Street Terminal, 2990 Main St, Alameda, CA
Segment Length	15 miles, 45 minutes
Advertised fares	
Adult	\$8.80
Adult Clipper Card	\$7.90
Youth (5-18)	\$4.40
Seniors (65&+), Disabled	\$4.40
Children (5 & under)	FREE (when accompanied by an adult)
School Groups	\$2.90
Short Hop (disembark Alameda)	\$1.70
Short Hop (disembark Alameda) Senior, Disabled	\$0.80

Hours of operation, Daily Trips	Mo-Fr: 6:25 am - 8:35 pm; Sa-Su: No Service
Mo-Fr	3 R/T
Sa-Su	No Service
Number of Operator Vessels	12
Vessels Operating Segment	2
	Pisces (117.8ft.)
	Gemini (117.8ft.)
Vessel Capacity	225 Passengers, 34 bikes
Seating Capacity	Pisces (225)
	Gemini (225)
Vehicle Capacity	None
Bicycle Capacity	Pisces (34)
	Gemini (34)
Boarding statistics	Annual (2014-15) Passengers 112,000 (Oakland and Alameda Main St.)
Plans for future expansion	None



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 18. San Francisco Water Taxi

Type, Water Body	Water Taxi, SF Bay
Total Operator Segments	1
Terminal Location(s)	Stops at Exploratorium, Pier 1.5, Pier 39, Pier 40, and Hyde Street Pier
Advertised fares	\$10 All day; \$5 Locals on weekdays; \$5 ages 17 & under; Free ages 4 & under
Regulation	Port of San Francisco
Hours of operation, Daily Trips	Monday – Friday 8:00 am – 8:00 pm; Weekends 10:30 am to 7:00 pm
Total number of vessels	7
Seating Capacity	6 - 20
Vehicle Capacity	N/A
Bicycle Capacity	N/A (Bicycles Allowed)
Boarding statistics	~ 15,000 – 20,000 (2017)
Plans for future expansion	Yes
Owner, Operator	Private, Private
CEO	Dave Thomas
Contact	Dave Thomas 415-926-1114 sfwatertaxi@yahoo.com
Website	http://sanfranciscowatertaxi.org



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 19. Tideliner

Type, Water Body	Water Taxi, SF Bay
Total Operator Segments	1
Segment names & length (nautical miles)	Pier 50 (SF); Berth 9 (Oakland) (5.2 nmi)
Advertised fares	N/A
Regulation	California Public Utilities
Hours of operation, Daily Trips	Monday – Friday 7:30 am – 9:20 am; 4:00 pm to 5:50 pm
Total number of vessels	N/A
Seating Capacity	N/A
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	N/A
Plans for future expansion	N/A
Owner, Operator	Private, Private
CEO	Ryan Craves 415-339-0196
Contact	Ryan Craves 415-339-0196
Website	https://www.tidelinetickets.com/

Note: Operator did not respond to repeated requests for information; table entries reflect data retrieved at operator's website.



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 20. Westar Marine Service Water Taxi

Type, Water Body	Water Taxi, SF Bay
Total Operator Segments	1
Segment names & length (nautical miles)	Pier 50 (SF); Berth 9 (Oakland); Angel Island; Alcatraz; Jack London Square
Advertised fares	\$315/hr
Regulation	California Public Utilities
Hours of operation, Daily Trips	24/7/365
Total number of vessels	6
Seating Capacity	28-49
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	15 average daily trips
Plans for future expansion	N/A
Owner, Operator	Private, Private
CEO	Ryan Craves 415-339-0196
Contact	Eric 415-495-3191
Website	https://www.westarmarineservices.com/

SACRAMENTO/DELTA AREA WATER TRANSIT SERVICES

There are three primary water transit operators in the Sacramento/Delta area:

- Caltrans Water Transit Services
- San Joaquin County Dept. of Public Works
- Delta Authority

These providers are summarized in Table 3.

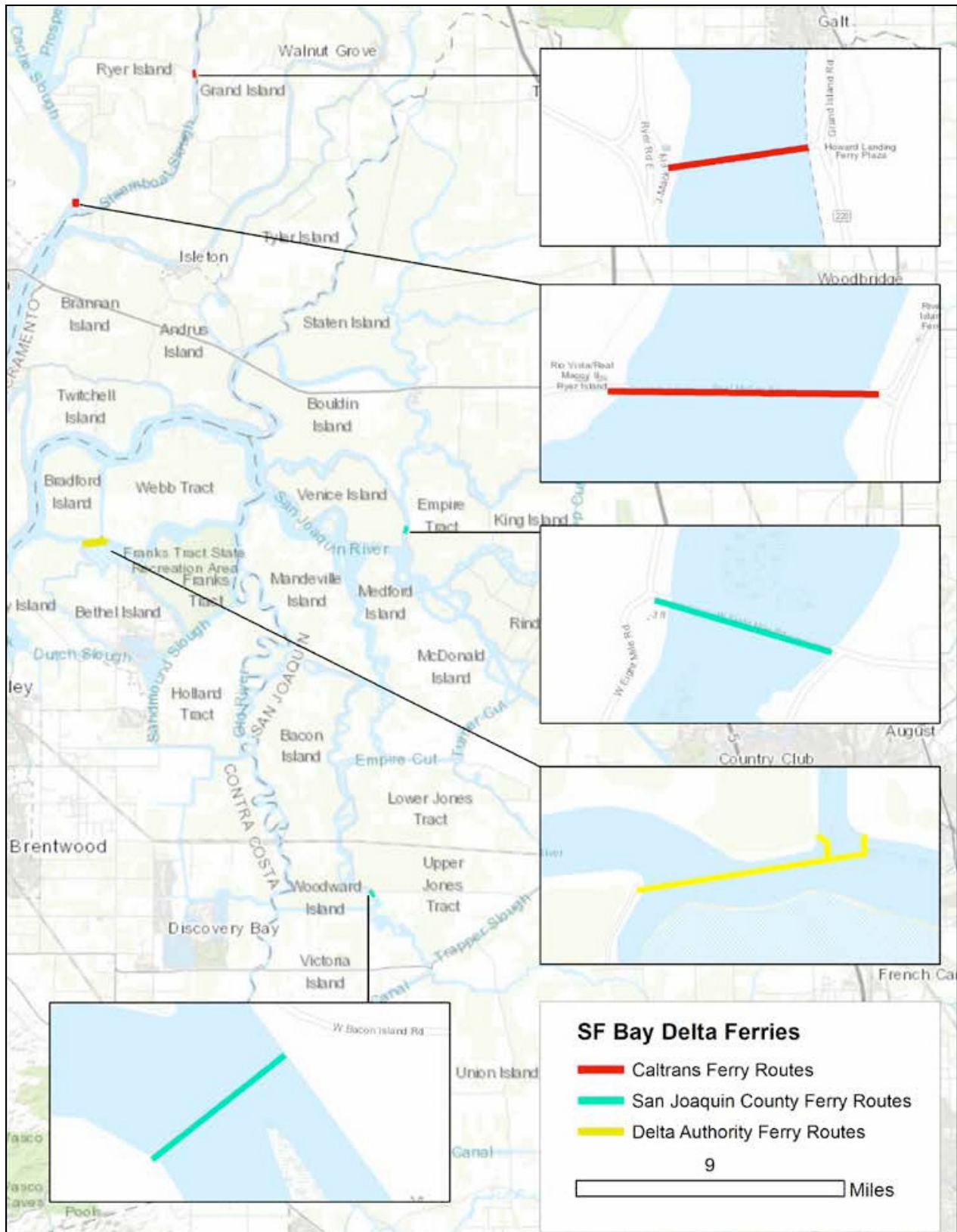
Table 3. Summary of Commuter and Non-Commuter Water Transit Services in the Sacramento/Delta Area

<i>Type</i>	Total Number of Operators	Total Number of Vessels	Total Nautical Miles	Ownership (OW) / Operator Type (OP)	
				Total Number of Private	Total Number of Public
<i>Commuter</i>	3	5	0.88	OW: 4 / OP: 4	OW: 2 / OP: 2
<i>Non-Commuter</i>	N/A	N/A	N/A	N/A	N/A
<i>Water taxi</i>	N/A	N/A	N/A	N/A	N/A

*** Some operators in this region did not respond to repeated requests for information; table entries reflect data available at the operator's website.*

The figure on the next page presents an overview of water transit services operating in the Sacramento Delta Area. Following are figures for the each of the routes service by these operators.

FERRY OPERATORS ON THE CALIFORNIA DELTA





Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 21. Ryer Island - Grand Island (Caltrans)

Type, Water Body	Commuter, River
Total Operator Segments	2
Terminal Location(s)	East Ryer Rd. at CA Hwy 220 Grand Island Rd. at CA Hwy 220
Segment Length	400 Feet, 3 minutes.
Advertised fares	Free
Regulation	Caltrans
Hours of operation, Daily Trips	24/7, 200 - 300 R/T
Number of Operator Vessels	2
Vessels Operating Segment	1, J-Mack (92 ft.)
Seating Capacity	N/A (Pedestrians Allowed)
Vehicle Capacity	6 Vehicles
Bicycle Capacity	N/A (Bicycles Allowed)
Boarding statistics	96,589 Vehicles (Fiscal 2017-2018)
Plans for future expansion	None
Owner, Operator	Public (Caltrans), same
CEO	Tony Tavares, Caltrans Dist. 4 Dir.
Contact	Vince Jacala, Caltrans Dist. 4 Pub. Affairs
Website	http://www.dot.ca.gov/d4/deltaferries/



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 22. Rio Vista - Ryer Island (Caltrans)

Type, Water Body	Commuter, River
Total Operator Segments	2
Terminal Location(s)	Hwy 84, Rio Vista CA Ryer Island East Landing
Segment Length	800 ft., 6 minutes.
Advertised fares	Free
Regulation	Caltrans
Hours of operation, Daily Trips	24/7, 72 R/T
Number of Operator Vessels	2
Vessels Operating Segment	1, Real McCoy II (88ft)
Seating Capacity	N/A (Pedestrians Allowed)
Vehicle Capacity	8 Vehicles
Bicycle Capacity	N/A (Bicycles Allowed)
Boarding statistics	96,270 Vehicles (Fiscal 2017-2018)
Plans for future expansion	None
Owner, Operator	Public (Caltrans), same
CEO	Tony Tavares, Caltrans Dist. 4 Dir.
Contact	Vince Jacala, Caltrans Dist. 4 Pub. Affairs
Website	http://www.dot.ca.gov/d4/deltaferries/



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 23. Venice Island - Empire Tract (San Joaquin County)

Type, Water Body	Commuter, River
Total Operator Segments	1
Terminal Location(s)	Empire Tract Terminal, Correia Rd. at Eight Mile Rd., San Joaquin County, CA Venice Island Terminal
Segment Length	600 Feet
Advertised fares	Free
Regulation	San Joaquin County
Hours of operation, Daily Trips	Mo-Su 6:45am-6:15pm, varies
Number of Operator Vessels	1
Vessels Operating Segment	Vessel # 16
Seating Capacity	7 Pedestrians
Vehicle Capacity	1 Vehicles
Bicycle Capacity	Bicycles Allowed
Boarding statistics	N/A
Plans for future expansion	No
Owner, Operator	Public (San Joaquin County), (Private) Reclamation District 2072

CEO	N/A
Contact	San Joaquin County Public Works Dept.
Website	https://www.sjgov.org/department/pwk/default

Note: Due to the planned replacement of the Woodward Island Service with a bridge scheduled for Fall 2019 completion. Vessel number 12 will be moved and maintained as back up for Venice Island Service.

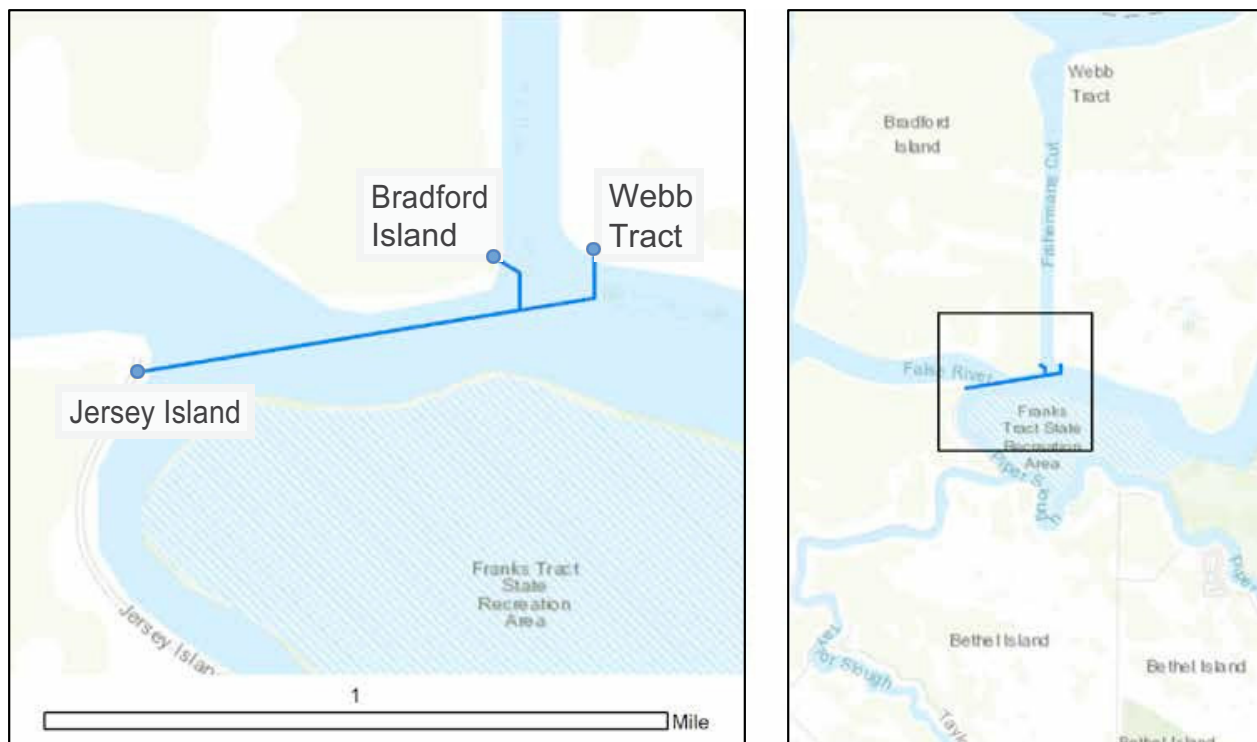


Figure 24. Woodward Island - Upper Jones Tract (San Joaquin County)

Type, Water Body	Commuter, River
Total Operator Segments	1
Terminal Location(s)	Upper Jones Tract Terminal, Bacon Island Rd Stockton, CA
	Woodward Island Terminal
Segment Length	550 Feet
Advertised fares	Free
Regulation	San Joaquin County
Hours of operation, Daily Trips	Mo-Su 6:45am-6:15pm, varies
Number of Operator Vessels	1
Vessels Operating Segment	Vessel # 16
Seating Capacity	7 Pedestrians
Vehicle Capacity	1 Vehicles
Bicycle Capacity	Bicycles Allowed
Boarding statistics	N/A
Plans for future expansion	Replacement
Owner, Operator	Public (San Joaquin County), (Private) Reclamation District 2072
CEO	N/A

Contact	San Joaquin County Public Works Dept.
Website	https://www.sjgov.org/department/pwk/default

Note: Planned replacement of service with a bridge is scheduled for Fall 2019 completion. The vessel will be moved and maintained as back up for Venice Island Service.



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 25. Delta Ferry Authority - Jersey Island - Bradford Island & Webb Tract

Type, Water Body	Commuter, River
Total Operator Segments	1
Terminal Location(s)	Jersey Island Terminal, Oakley, CA Bradford Island Terminal Webb Tract Terminal
Segment Length	3,000 Feet
Advertised fares	\$200/hr for On Call Service Monthly Fee to residents for pass
Vehicles	\$7.75 for first 2 axles, additional \$7.75 per axle R/T
Regulation	Bradford Island Levee Improvement District
Hours of operation, Daily Trips	Mo-Fr 9am-11am, 1pm-5pm; Sa 8am-12an; Su 11am-3pm
Mo-Fr	8 R/T
Sa-Su	5 R/T
Number of Operator Vessels	1
Vessels Operating Segment	Victory II Ferry (57.8Ft)

Seating Capacity	Pedestrians Allowed, but rare
Vehicle Capacity	12 Vehicles
Bicycle Capacity	Bicycles Allowed, but rare
Boarding statistics	Vehicles, 4236 Passengers, 919 Trailers
Plans for future expansion	None
Owner, Operator	Bradford Island Levee Improvement District
CEO	Robert Davies, President/Treasurer of the Bradford Island Levee Improvement District
Contact	Dave Forkel, Delta Ferry Authority, (510) 693-9977
Website	https://bradfordisland.com/ferry-info/

SOUTHERN CALIFORNIA WATER TRANSIT SERVICES

There are ten primary water transit operators in Southern California:

- Balboa Island
- Catalina Express
- Catalina Flyer
- Flagship Cruises
- Island Packers
- Long Beach Transit
- Santa Barbara Water Taxi
- US Water Taxi Services
- Marina del Rey Water Taxi
- Avila Beach Water Taxi

These providers are summarized in Table 4.

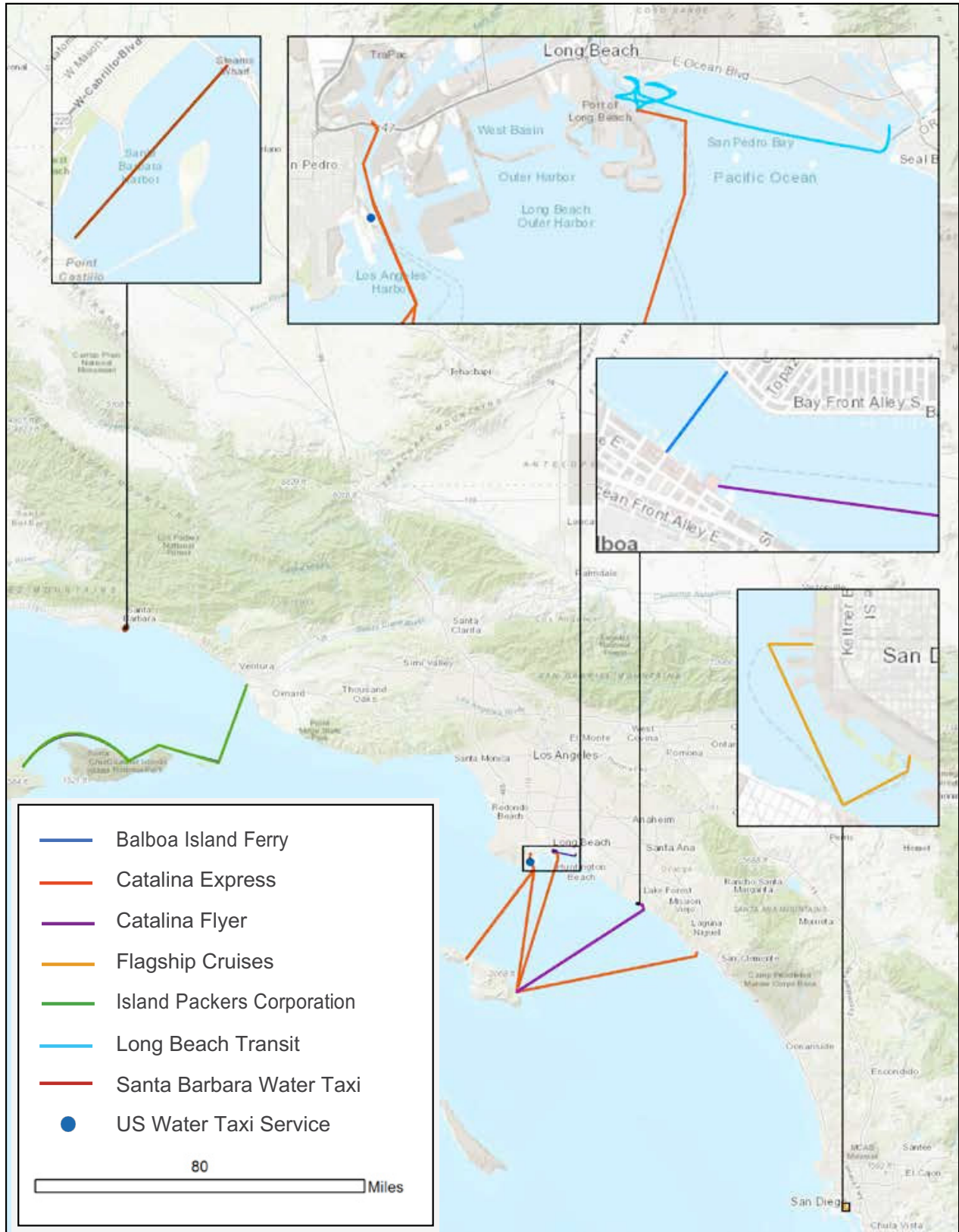
Table 4. Summary of Commuter and Non-Commuter Water Transit Services in Southern California

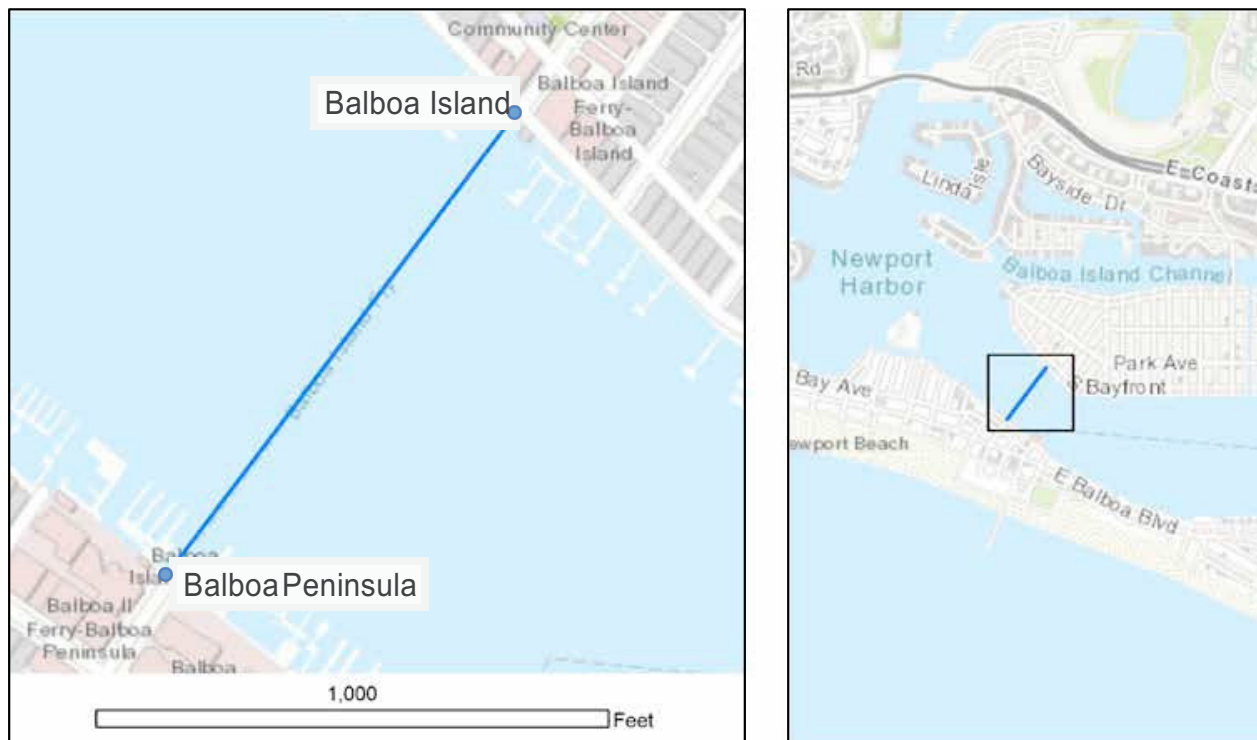
Type	Total Number of Operators	Total Number of Vessels	Total Nautical Miles	Ownership (OW) / Operator Type (OP)	
				Total Number of Private	Total Number of Public
<i>Commuter</i>	5	17	206.9	OW: 4 / OP: 4	OW: 2 / OP: 2
<i>Non-Commuter</i>	2	5	33	OW: 1 / OP: 1	OW: 1 / OP: 1
<i>Water taxi</i>	11	27	N/A	OW: 6 / OP: 1	OW: 1 / OP: 6

*** Some operators in this region did not respond to repeated requests for information; table entries reflect data available at the operator's website.*

The figure on the next page presents an overview of water transit services operating in southern California. Following are figures for the each of the routes service by these operators.

FERRY OPERATORS IN SOUTHERN CALIFORNIA



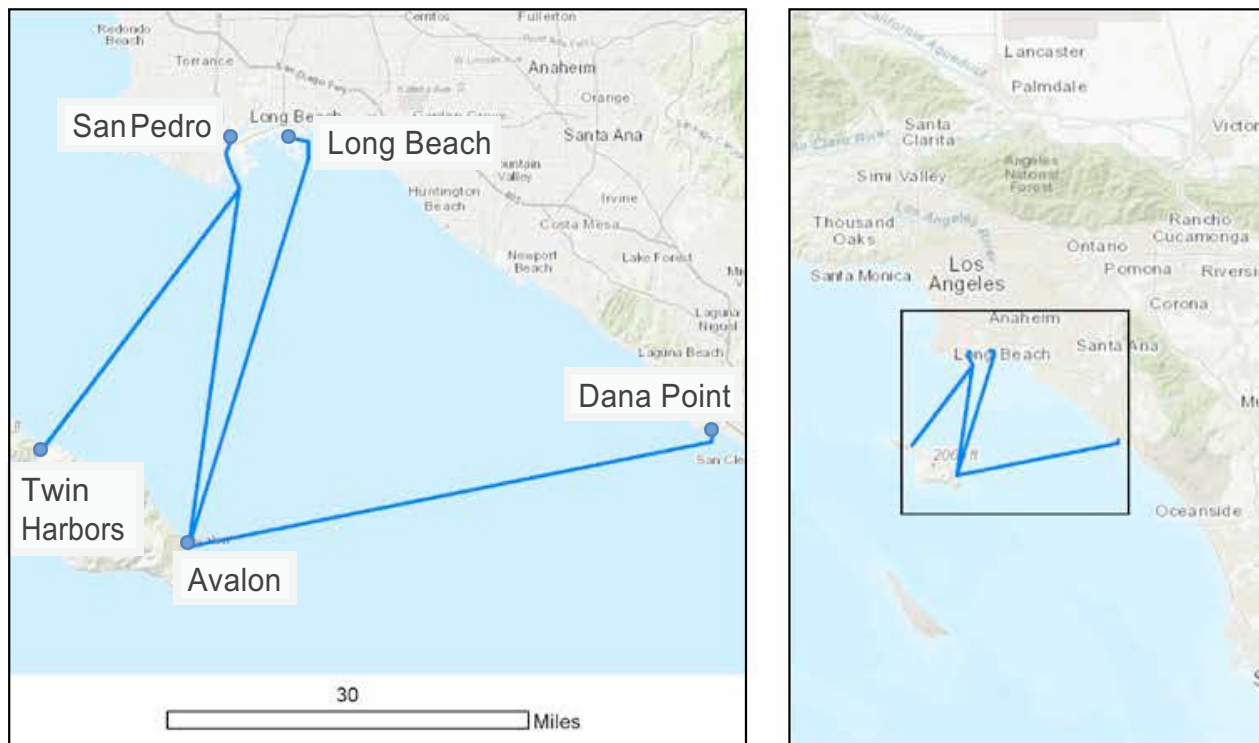


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 26. Balboa Island Ferry

Type, Water Body	Commuter & Recreation, Newport Harbor
Total Operator Segments	1
Terminal Location(s)	Agate Ave. Terminal, Balboa Island, Newport Beach CA Palm St. Terminal, Balboa Peninsula, Newport Beach CA
Segment Length	800 Feet
Advertised fares	
Passengers	
Passengers: Adult	\$1.00
Child (5-12)	\$0.50
Child (under 5)	Free
Vehicles: (passengers are extra)	
Car and driver	\$2.00
Motorcycle	\$1.50
Bicycle and Adult	\$1.25
Bicycle and Child	\$0.75
Hours of operation, Daily Trips	Su-Th: 6:30 am - 12:00 am; Fr-Sa 6:30 am - 2:00am

Number of Operator Vessels	3
	Admiral
	Commodore
	Captain
Vessel Capacity	3 Vehicles, 75 Passengers, accommodates bikes
Seating Capacity	Admiral (75)
	Commodore (75)
	Captain (75)
Vehicle Capacity	Admiral (3)
	Commodore (3)
	Captain (3)
Bicycle Capacity	Admiral (accommodates bikes)
	Commodore (accommodates bikes)
	Captain (accommodates bikes)
Boarding statistics	Annual Cars 338,200, Pedestrians 608,200, bikes 214,900
Plans for future expansion	None

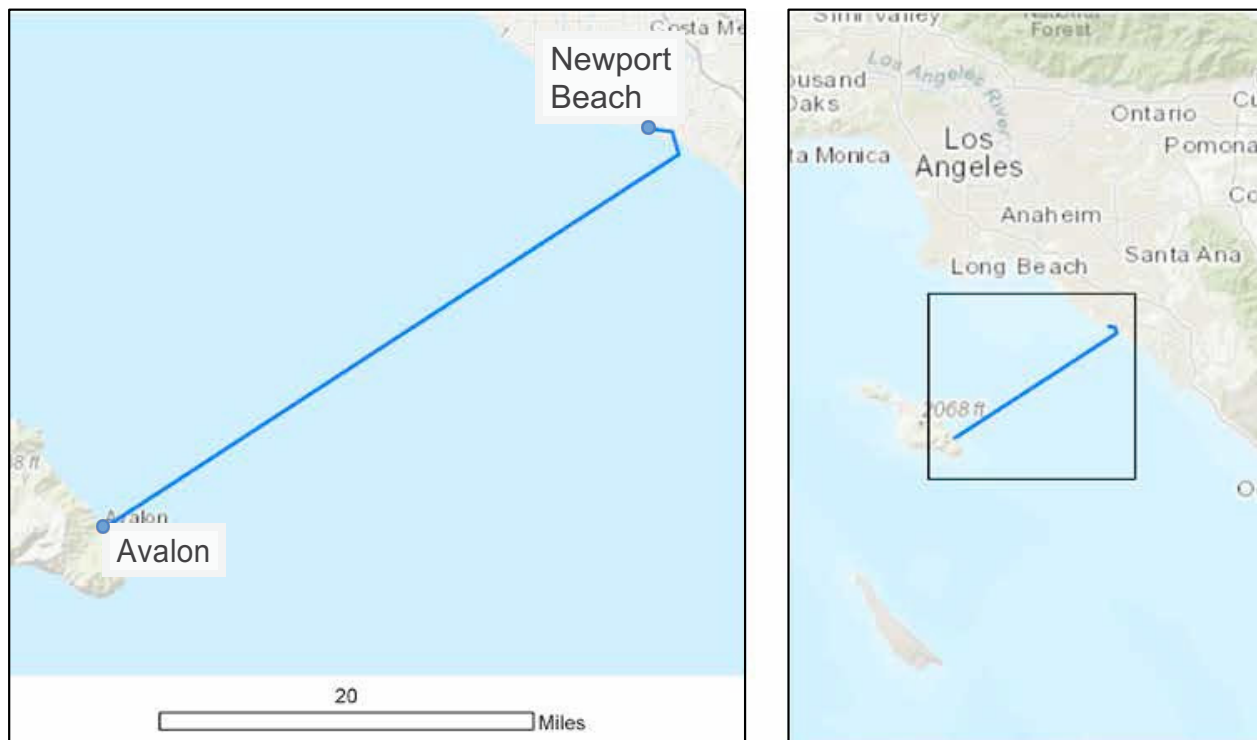


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 27. Catalina Express

Type, Water Body	Commuter, Ocean
Total Operator Segments	5
Segment names & length (nautical miles)	Avalon, Catalina Island – Dana Point Harbor (30 nmi)
	Avalon, Catalina Island – Long Beach
	Avalon, Catalina Island – San Pedro (30 nmi)
	San Pedro – Two Harbors, Catalina Island (30 nmi)
	San Pedro – Avalon, Catalina Island (30 nmi)
Advertised fares	Adults \$73.50; Child \$58; Senior \$66.50; Infant \$5
Regulation	California Public Utilities
Hours of operation, Daily Trips	Monday - Sunday 6:15 am – 7:55 pm
Total number of vessels	8 including 4 Long Beach Transit water taxis
Seating Capacity	149 – 350
Vehicle Capacity	N/A
Bicycle Capacity	8

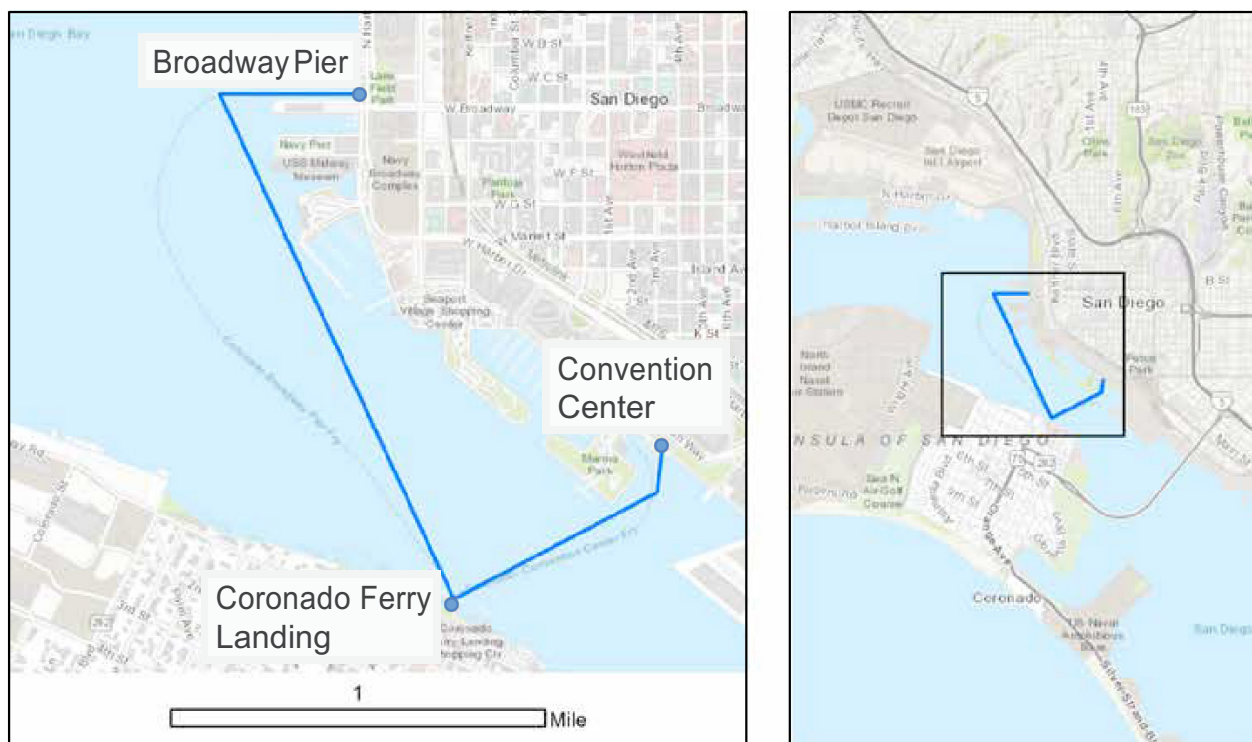
Boarding statistics	500,000 passengers and 30 daily trips
Plans for future expansion	No
Owner, Operator	Private, Private
CEO	Greg Bombard 310-519-7971 x1000
Contact	Tom Rutter 310-519-7971 x1000 trutter@ catalinaexpress.com
Website	https://www.catalinaexpress.com/



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 28. Catalina Flyer

Type, Water Body	Commuter and Non-Commuter, Ocean
Total Operator Segments	1
Segment names & length (nautical miles)	Avalon, Catalina Island – Newport Beach (28 nmi)
Advertised fares	Adult \$69; Senior \$64; Child \$52; Infant \$5
Regulation	California Public Utilities
Hours of operation, Daily Trips	Monday – Sunday 7:00 am – 5:45 pm
Total number of vessels	1
Seating Capacity	600
Vehicle Capacity	N/A
Bicycle Capacity	50
Boarding statistics	15,0114,198 passengers; 289 trips; avg. 1 daily trip
Plans for future expansion	Yes
Owner, Operator	Public, Private
CEO	Armond Gugasian 800-830-7744
Contact	Bob Black 800-830-7744 x110 bob@catalinainfo.com
Website	http://www.catalinainfo.com/

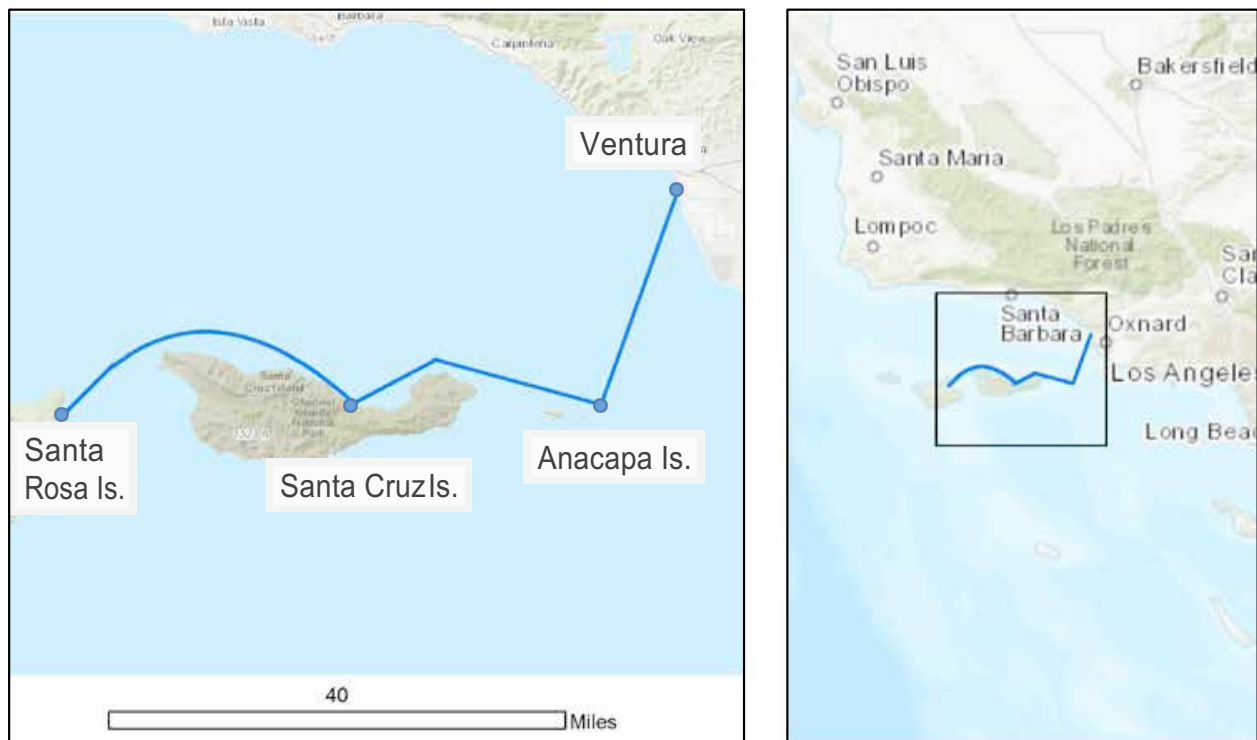


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 29. Flagship Cruises

Type, Water Body	Commuter, Non-Commuter, and Water Taxi services, San Diego Bay
Total Operator Segments	2
Terminal Location(s)	Broadway Pier – Coronado Ferry Landing (5 nmi) Coronado Ferry landing – Convention Center (5 nmi)
Advertised fares	Free for morning commuters 5:40 am – 8:50 am; Adults \$5; Free for infants (3 y.o and younger)
Regulation	California Public Utilities
Hours of operation, Daily Trips	5:15 am – 8:50 am mornings; 2:00 – 6:45 pm evenings; Monday to Friday 9:00 am – 9:55 pm; Fridays and Saturdays up to 10:55 pm depending on port location.
Total number of vessels	4
Seating Capacity	15-250
Vehicle Capacity	N/A
Bicycle Capacity	32

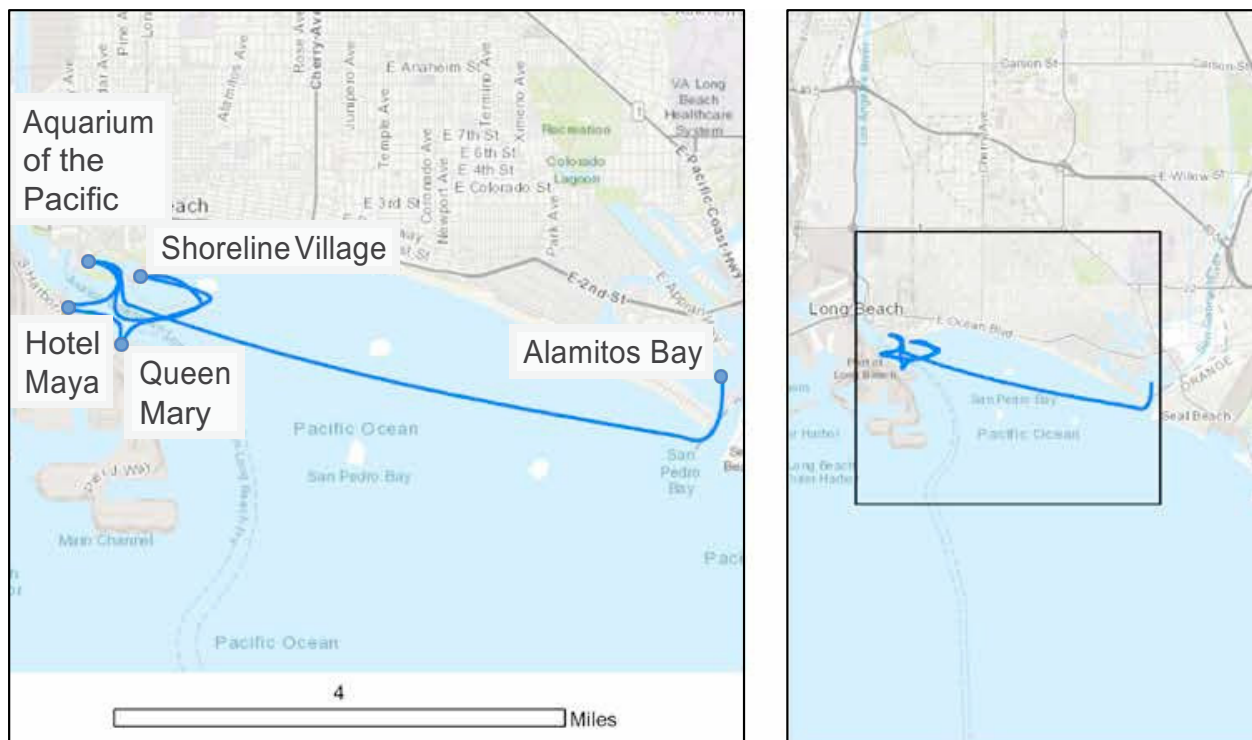
Boarding statistics	600,000 passengers; 40 average daily trips
Plans for future expansion	No
Owner, Operator	Private, Private
CEO	George Palmero 619-522-6159 george@flagshipsd.com
Contact	Brad Engel 619-522-6183
Website	https://www.flagshipsd.com/



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 30. Island Packers

Type, Water Body	Commuter, Ocean
Total Operator Segments	3
Segment names & length (nautical miles)	Ventura Harbor – Anacapa Island (9.5 nmi) Anacapa Island – Santa Cruz Island (18.2 nmi) Santa Cruz Is. – Santa Rosa Is. (16.3 nmi)
Advertised fares	Adult (13-54) \$59; Seniors \$54; Child (3-12) \$41
Regulation	N/A
Hours of operation, Daily Trips	Monday – Sunday 8:00 am – 5 pm
Total number of vessels	4
Seating Capacity	600
Vehicle Capacity	N/A
Bicycle Capacity	50
Boarding statistics	114, 198; 289 annual trips; 1 average daily
Plans for future expansion	No
Owner, Operator	Public/Private
CEO	Mark Connally
Contact	Monica 805-642-1393 in-fo@islandpackers.com
Website	Islandpackers.com



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 31. Long Beach Transit

Type, Water Body	Water Taxi, San Pedro Bay
Total Operator Segments	4
Segment names & length (nautical miles)	Aquarium of the Pacific – Alamos Bay Landing (5 nmi)
	Aquarium of the Pacific – Queen Mary (0.35 nmi)
	Alamos Bay Landing – Queen Mary (4.65 nmi)
	Aquarium of the Pacific – Pine Avenue (0.05 nmi)
Advertised fares	\$1 One-way
Regulation	California Public Utilities
Hours of operation, Daily Trips	Limited to summer
Total number of vessels	4
Seating Capacity	37-74
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	51,064 passengers
Plans for future expansion	No

Owner, Operator	Private, Public
CEO	Lawrence Jackson
Contact	Kevin Lee 562-591-2301 klee@lbtransit.com
Website	https://ridelbt.com/Services/WaterTaxis.aspx



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 32. Santa Barbara Water Taxi

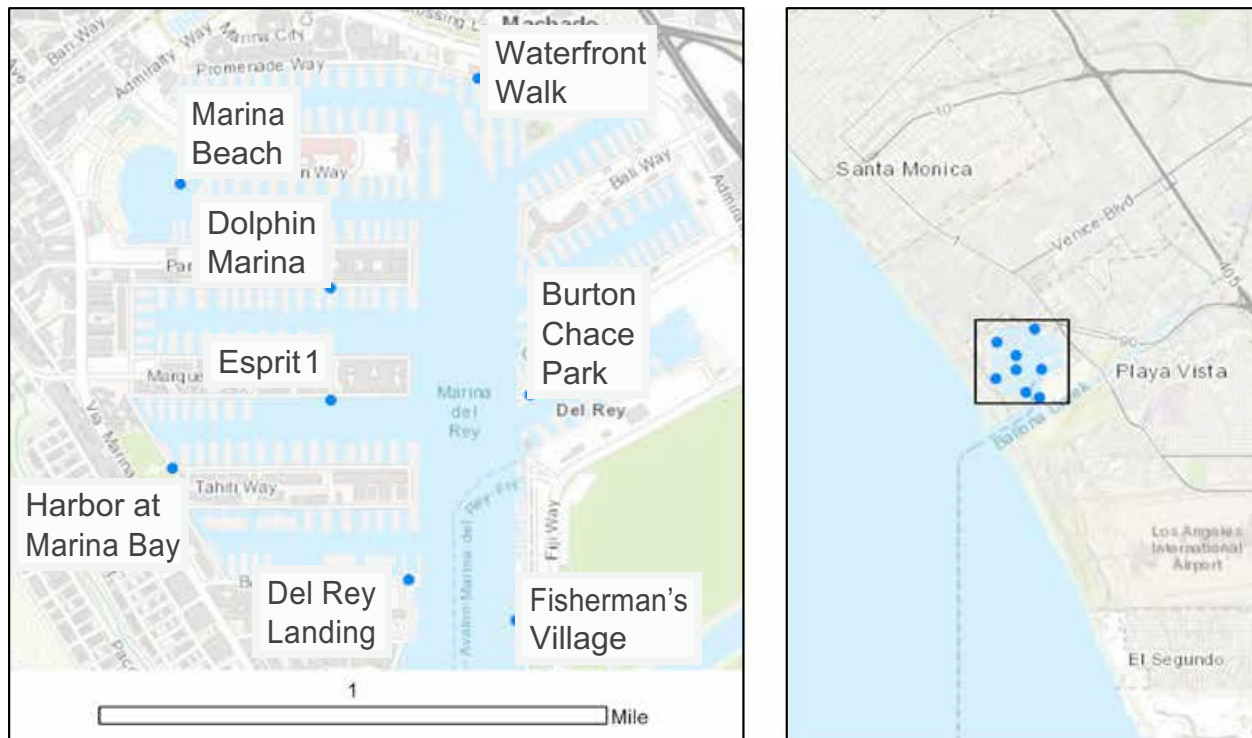
Type, Water Body	Commuter, Santa Barbara Harbor
Total Operator Segments	1
Segment names & length (nautical miles)	Santa Barbara – Stearn’s Wharf (0.75 nmi)
Advertised fares	Adults \$5; Kids \$2
Regulation	U.S. Coast Guard
Hours of operation, Daily Trips	Summer only Monday – Sun-day
Total number of vessels	1
Seating Capacity	19
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	24 average daily trips
Plans for future expansion	No
Owner, Operator	Private, Private
CEO	Fred Hershman 805-465-6676
Contact	Cathy Hershman 805-465-6676
Website	Celebrationsb.com



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 33. US Water Taxi Service

Type, Water Body	Water Taxi, Los Angeles Harbor
Total Operator Segments	N/A
Terminal Location	Berth 57, Los Angeles Harbor
Advertised fares	Free
Regulation	Port District
Hours of operation, Daily Trips	Summer weekends and holidays 11:00 am – 6:00 pm
Total number of vessels	1
Seating Capacity	6-20
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	N/A
Plans for future expansion	N/A
Owner, Operator	Public, Private
CEO	
Contact	(310) 519-8230



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 34. Marina Del Rey Water Taxi

Type, Water Body	Water Taxi, Harbor
Total Operator Segments	1
Terminal Locations	Marina Beach, Dolphin Marina, Esprit 1, Harbor at Marina Bay, Del Rey Landing, Fisherman's Village, Burton Chace Park, Water-front Walk
Advertised fares	\$1
Regulation	N/A
Hours of operation, Daily Trips	Thursday – Saturday 11:00 am – midnight; Sunday end at 9:00 pm
Total number of vessels	N/A
Seating Capacity	12
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	N/A
Plans for future expansion	N/A
Owner, Operator	N/A
CEO	N/A
Contact	310-628-3219; mdr@hornblower.com
Website	http://www.marinewaterbus.com



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

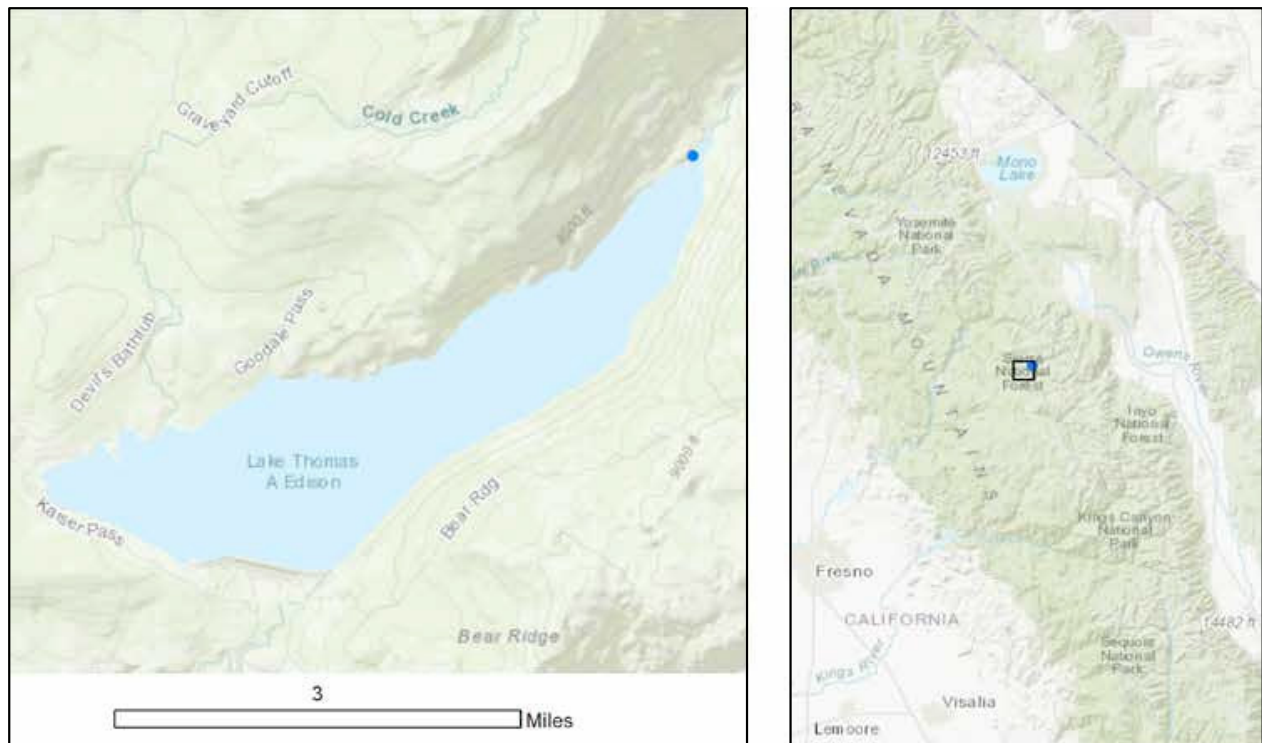
Figure 35. Avila Beach Water Taxi

Type, Water Body	Water Taxi, Ocean
Total Operator Segments	N/A
Terminal Location	Harford Pier
Advertised fares	Free
Regulation	N/A
Hours of operation, Daily Trips	All week 8:00 am to 4:00 pm
Total number of vessels	1
Seating Capacity	6
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	2 average daily
Plans for future expansion	No
Owner, Operator	Private, Private
CEO	Lee Egan 805-703-0397 seeweedxps@gmail.com
Contact	Lee Egan 805-703-0397 seeweedxps@gmail.com
Website	https://www.avilabeachpier.com/information/water-taxi-boat-yard.html

ADDITIONAL WATER TRANSPORTATION OPERATORS

Four operators did not fit neatly into the three geographic areas in the preceding sections. Maps and tabular summaries of these operators appear on the following pages:

- Edison Queen Hiker's Water Taxi
- Havasu Landing Casino Ferry
- Santa Cruz Port District Water Taxi
- Yurok Ferry Service

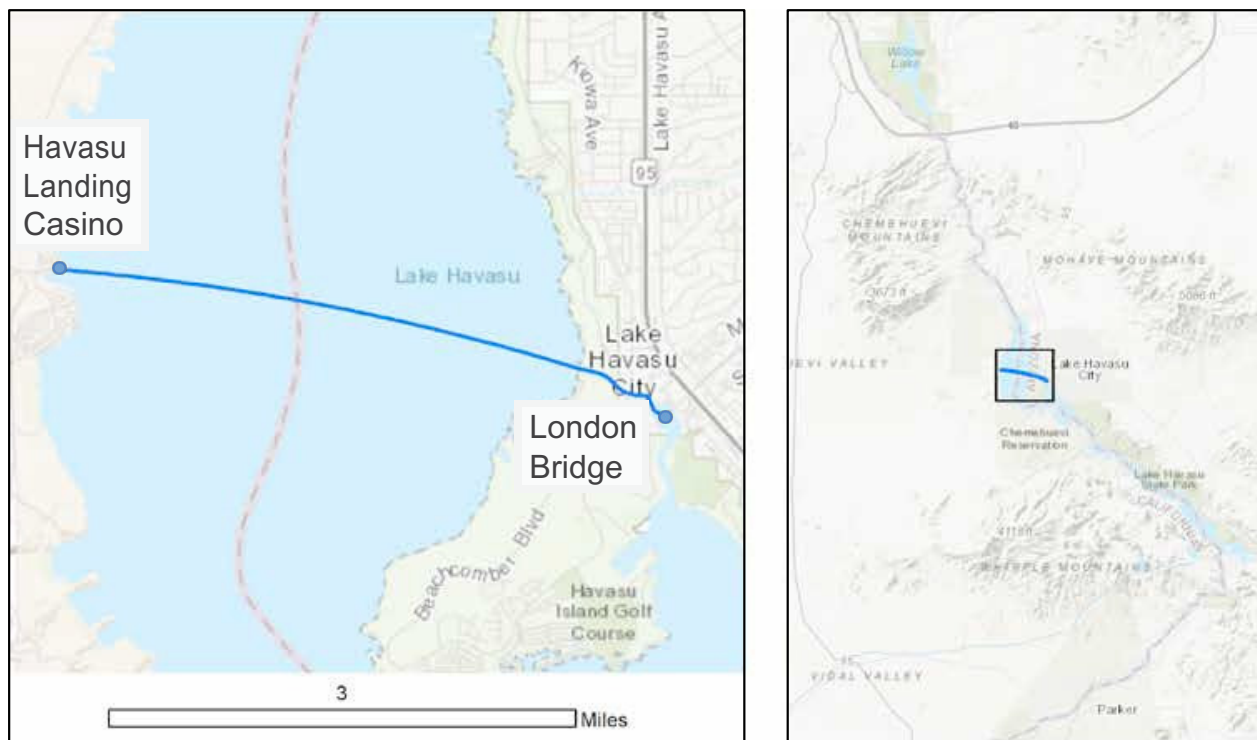


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 36. Edison Queen - Hiker’s Water Taxi

Type, Water Body	Water Taxi, Thomas A. Edison Lake
Total Operator Segments	N/A
Terminal Location	Mono Creek headwaters at Edison Lake
Advertised fares	\$13
Regulation	N/A
Hours of operation, Daily Trips	9 am and 4 pm; June to October
Total number of vessels	1
Seating Capacity	N/A
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	N/A
Plans for future expansion	N/A
Owner, Operator	N/A
CEO	N/A
Contact	(559) 259-4000
Website	http://www.edisonlake.com/hikers/ferry

Note: Operator did not respond to repeated requests for information possibly due to services ending in October. Will resume June 1st, 2019. Table entries reflect data retrieved at operator’s website.

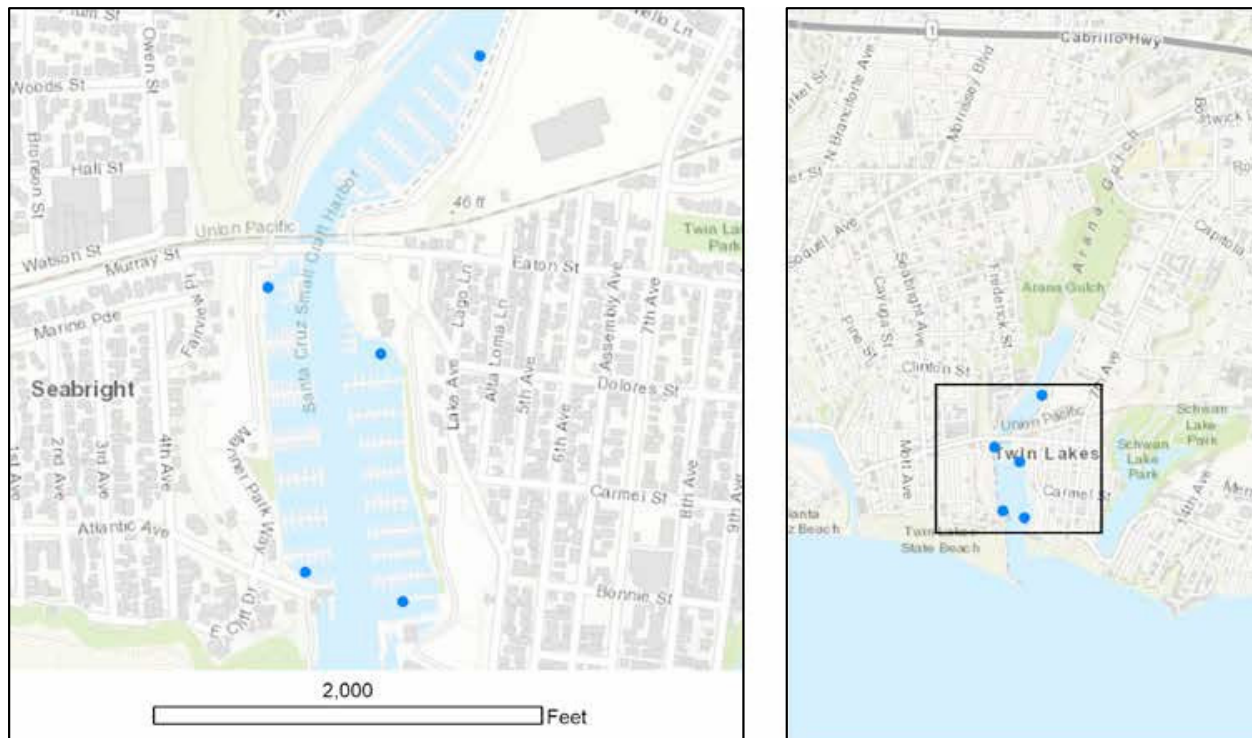


Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 37. Havasu Landing Casino Ferry

Type, Water Body	Water Taxi, Havasu Lake
Total Operator Segments	1
Segment name & length (nautical miles)	Havasu Landing to London Bridge (2.5 nmi)
Advertised fares	\$2.00
Regulation	N/A
Hours of operation, Daily Trips	6:45 am – 12:30 am
Total number of vessels	1
Seating Capacity	N/A
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	N/A
Plans for future expansion	N/A
Owner, Operator	N/A
CEO	N/A
Contact	(760)-858-4592 ext. 230
Website	http://www.havasulanding.com

Note: Operator did not respond to repeated requests for information possibly due to services ending in October. Will resume June 1st, 2019. Table entries reflect data retrieved at operator's website.



Base Map Credits: Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), swisstopo, © OpenStreetMap contributors, and the GIS User Community

Figure 38. Santa Cruz Port District Water Taxi

Type, Water Body	Water Taxi, Santa Cruz Harbor
Total Operator Segments	N/A
Terminal Location(s)	X-1 Gate, Santa Cruz Harbor AA Dock (Aldo's), Santa Cruz Harbor Launch Ram, Santa Cruz Harbor
Advertised fares	Free
Regulation	Port District
Hours of operation, Daily Trips	Summer weekends and holidays 11:00 am – 6:00 pm
Total number of vessels	1
Seating Capacity	6 - 20
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	N/A
Plans for future expansion	N/A
Owner, Operator	Public, Private
CEO	Chuck Izenstark 831-475-6161 x20 cisenstark@santacruzharbor

Contact	Alex 831-475-6161
Website	https://www.santacruzharbor.org/harbor-water-taxi/

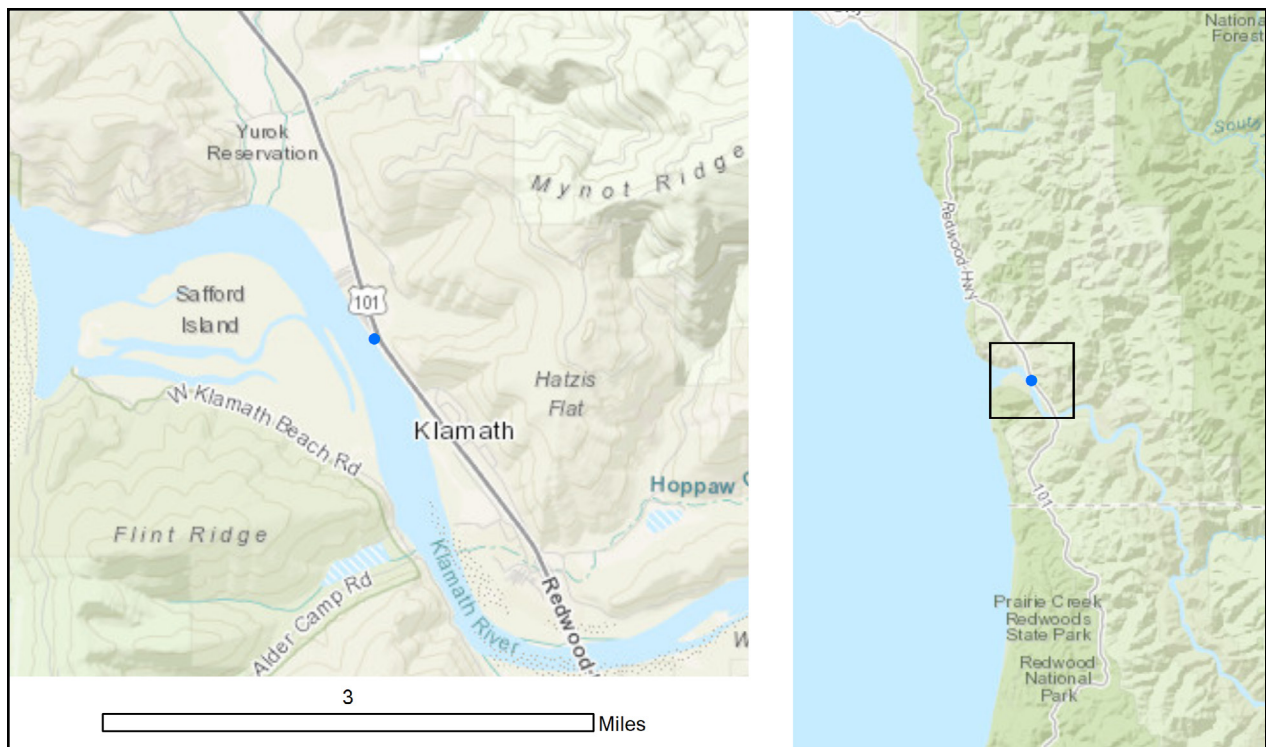


Figure 39. Yurok Ferry Service

Type, Water Body	Water Taxi, Klamath River
Total Operator Segments	N/A
Terminal Location(s)	Sregon Village at Klamath River
Advertised fares	Adults (13 and up) \$5.00; Children (2 to 12) \$4:00; Elders and Infants Free
Regulation	N/A
Hours of operation, Daily Trips	Pickups at 6:55, 7:35, and 8:15 am; Drop-offs at 5:10, 5:50, and 6:25 pm
Total number of vessels	1
Seating Capacity	12
Vehicle Capacity	N/A
Bicycle Capacity	N/A
Boarding statistics	N/A
Plans for future expansion	N/A
Owner, Operator	N/A
CEO	N/A
Contact	Grant 707-482-1350, ext 1321; Brandi Natt bnatt@yuroktribe.nsn.us, 707-482-1350 ext 1355
Website	http://www.yuroktribe.org/rfp/documents/RiverFerry.pdf

Note: Operator did not respond to repeated requests for information possibly due to services ending in October. Will resume June 1st, 2019. Table entries reflect data retrieved at operator's website.

III. RECREATIONAL WATER TRANSIT SERVICES IN CALIFORNIA

The previous section provides comprehensive details about each commuter and non-commuter water transit operator in the state of California. In the interest of demonstrating the thoroughness with which we conducted this census, Table 5 presents a listing of 37 additional water transportation operators in the state that we have classified as recreational in nature since they do not provide “Point A to Point B” service. The relevant website for the operator is provided if it exists. Our research concluded that these operators were not directly relevant to the scope of services and impetus for this census since they provide lake cruises, charter yachts, whale watching adventures, sport fishing and bay-based “cruises to nowhere.”

Also, since none of the operators listed in Table 5 appear to offer fixed-route service and all are almost exclusively recreational in nature, they did not qualify as meeting the threshold for essential water transportation for residents and commuters of our state. However, future researchers might wish to reference this list in terms of possibilities for providing water transportation in cases of major regional emergencies.

Table 5. Recreational Water Transportation Operators in California

Action Beach and Bay Rentals Inc. Water Taxi	(Website not found)
Anchor Yacht Charters Bay	http://aycharters.com/
Adventure Cat Sailing Cruises	http://adventurecat.com/
Bella Monterey Bay	http://bellamontereybay.com/
Blue Water Hunter Adult \$9; Child \$5	http://blueh20.com/index.html
Bleu Wave	http://tahoeubleuwave.com/
Captain Jack’s Tours & Events	http://captainjackstours.com/
Catalina Classic Cruises Paradise Point Resort - Seaworld (0.5nmi)	http://catalinaclassiccruises.com/
Celebration Cruises	http://celebrationsantabarbara.com/
Commodore Cruises and Events	http://commodoreevents.com/
Condor Express	http://condorexpress.com/
County of Santa Barbara Parks Division	http://countyofsb.org/parks/parks05.aspx?id=7564
Crowley Maritime Corp.	http://crowley.com/
Cruise Newport Beach	http://cruisenewportbeach.com/
Cruise Orange	http://get2sea.com/
Cruise with Pride	http://cruisingwithpride.com/
D&G Marine Inc.	(Website not found)
Dana Wharf Sport Fishing & Whale Watching	http://danawharf.com/contact.html
Delta Discovery Cruises	http://deltadiscoverycruises.com/

Electra Cruises	http://electracruises.com/
Empress Events	http://empressevents.com/
Hornblower Cruises and Events	(Website not found)
Island Navigation Company Inc.	(Website not found)
Monterey Bay Sailing	http://montereysailing.com/
Napa Valley Adventures	http://napariveradventures.com/
Newport Beach Tours	http://newportbeachtours.net
Newport Landing Whalewatch	http://newportwhales.com/
Next Level Sailing	http://nextlevelsailing.com/
Princess Monterey Whale Watching	http://montereywhalewatching.com/
Red and White Fleet	http://redandwhite.com/
Sacramento Tours	http://sacramentotours.net/
Sacramento Yacht Charters LLC	(Website not found)
Sanctuary Cruises	http://sanctuarycruises.com/
San Diego Yacht Charters	http://sdbaywatchcruises.com/
Santa Barbara Sailing Center	http://sbsail.com/double_dolphin.html
Sea Landing Dive Center	http://sealanding.net/
SF Bay Adventures	http://sfbayadventures.com/
Star and Crescent Boat Company	(Website not found)
Stardust Sport Fishing	http://stardustsportfishing.com
Sunset Kidd Sailing Charters	http://sunsetkidd.com/
Tahoe Cruises	http://tahoecruises.com
Tahoe Gal	http://tahoegal.com/
The Gondola Company	http://gondolacompany.com/
Truth Aquatics	http://truthaquatics.com/index.html
Two Harbors Enterprise Inc.	(Website not found)
Wave Walker Charters	http://wavewalker.com/
Zephyr Cove Resort Lake Tahoe Cruises	http://zephyrcove.com/cruises.aspx

ABOUT THE AUTHORS

RICHARD M. KOS, AICP

Richard Kos is certified urban planner and geographic information systems expert. After earning a BS degree in Environmental Planning and Design from Rutgers University, Mr. Kos put his skills into practice with local governments in New Jersey and North Carolina, serving as assistant or senior planner for a number of rapidly-growing communities. He earned his master's degree in Urban and Regional Planning from the University of North Carolina at Chapel Hill. In 2000, Mr. Kos served as a transportation planner and GIS analyst with the Metropolitan Transportation Commission in Oakland, California, where he produced numerous maps related to welfare-to-work and lifeline transportation projects. From there, Mr. Kos spent four years as GIS manager for DC&E, an innovative planning and design firm in Berkeley. In 2008, Mr. Kos decided to bring his skills into academia where he currently teaches graduate-level Geographic Information Systems and studio-based community improvement projects at San Jose State University. Mr. Kos also teaches short-term GIS workshops at City College of San Francisco and the California Academy of Art and offers his consulting services to a variety of clients including Mobility Planners, the City of Mountain View, and WorldLink.

NICK FREY

A North Carolinian by birth, a Californian by choice, and an Urbanist by calling, Nick Frey is a student of cities and the built form. With interests in land use and transportation and a deep environmental streak, Nick is pursuing a Master's Degree in Urban and Regional Planning at San Jose State University. He spends his free time on the trail or in the ocean, and loves traveling by train. He spent a month in India, a year in Germany and is always looking for the next adventure. Nick hopes to apply his education to crafting a denser, greener, and more equitable future for his home, California.

MEHEDI CHOWDHURY

Returning to San Jose State University, Mehedi Chowdhury is working on earning his master's degree in Urban Planning with a focus on environmental planning. He received his bachelor's degree in Environmental Studies from SJSU with a concentration on environmental impact assessment. He is currently interning at South Bay Water Recycling, managed by the City of San Jose's Environmental Services Department. Mehedi is deeply interested in designing cities that will artfully integrate natural services and ecological functions with energy efficient and beautiful buildings to harmonize city and nature for both humans and non-humans. Mehedi hopes to one day influence planning decisions with green visions and to break through institutional and political barriers to optimize cities in the face of climate change at home – and to learn how it is being addressed abroad, particularly in his river-abundant, water-transit-ideal, ancestral homeland of Bangladesh. This 2018 Water Transit Census project became of interest to him when he was sitting in traffic and wished he had taken a ferry instead.

PEER REVIEW

San José State University, of the California State University system, and the MTI Board of Trustees have agreed upon a peer review process required for all research published by MTI. The purpose of the review process is to ensure that the results presented are based upon a professionally acceptable research protocol.

MTI FOUNDER

Hon. Norman Y. Mineta

MTI BOARD OF TRUSTEES

Founder, Honorable Norman Mineta (Ex-Officio)

Secretary (ret.), US Department of Transportation
Vice Chair
Hill & Knowlton, Inc.

Chair, Grace Crunican (TE 2019)

General Manager
Bay Area Rapid Transit District (BART)

Vice Chair, Abbas Mohaddes (TE 2018)

President & COO
Econolite Group Inc.

Executive Director, Karen Philbrick, Ph.D. (Ex-Officio)

Mineta Transportation Institute
San José State University

Richard Anderson (Ex-Officio)

President and CEO
Amtrak

Laurie Berman (Ex-Officio)

Director
California Department of Transportation

David Castagnetti (TE 2021)

Co-Founder
Mehlman Castagnetti Rosen & Thomas

Maria Cino (TE 2021)

Vice President, America & U.S.
Government Relations
Hewlett-Packard Enterprises

Donna DeMartino (TE 2021)

General Manager and CEO
San Joaquin Regional Transit District

Nuria Fernandez* (TE 2020)

General Manager & CEO
Santa Clara Valley Transportation Authority

John Flaherty (TE 2020)

Senior Fellow
Silicon Valley American Leadership Forum

Rose Guilbault (TE 2020)

Board Member
Peninsula Corridor Joint Powers Board

Ian Jefferies (Ex-Officio)

President & CEO
Association of American Railroads

Diane Woodend Jones (TE 2019)

Principal & Chair of Board
Lea + Elliot, Inc.

Will Kempton (TE 2019)

Retired

Jean-Pierre Loubinoux (Ex-Officio)

Director General
International Union of Railways (UIC)

Bradley Mims (TE 2020)

President & CEO
Conference of Minority Transportation Officials (COMTO)

Jeff Morales (TE 2019)

Managing Principal
InfraStrategies, LLC

Dan Moshavi, Ph.D. (Ex-Officio)

Dean
Lucas College and Graduate School of Business
San José State University

Takayoshi (Taki) Oshima (TE 2021)

Chairman & CEO
Allied Telesis, Inc.

Paul Skoutelas (Ex-Officio)

President & CEO
American Public Transportation Authority (APTA)

Dan Smith (TE 2020)

President
Capstone Financial Group, Inc.

Beverley Swaim-Staley (TE 2019)

President
Union Station Redevelopment Corporation

Larry Willis (Ex-Officio)

President
Transportation Trades Dept., AFL-CIO

Bud Wright (Ex-Officio)

Executive Director
American Association of State Highway and Transportation Officials (AASHTO)

(TE) = Term Expiration

* = Past Chair, Board of Trustees

Directors

Karen Philbrick, Ph.D.

Executive Director

Asha Weinstein Agrawal, Ph.D.

Education Director
National Transportation Finance Center Director

Hilary Nixon, Ph.D.

Deputy Executive Director

Brian Michael Jenkins

National Transportation Security Center Director

Research Associates Policy Oversight Committee

Jan Botha, Ph.D.

Civil & Environmental Engineering
San José State University

Katherine Kao Cushing, Ph.D.

Environmental Science
San José State University

Dave Czerwinski, Ph.D.

Marketing and Decision Science
San José State University

Frances Edwards, Ph.D.

Political Science
San José State University

Taeho Park, Ph.D.

Organization and Management
San José State University

Christa Bailey

Martin Luther King, Jr. Library
San José State University



