



# Port of San Francisco Water Taxi Feasibility Study Executive Summary

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## I. RIDERSHIP DEMAND

### A. INTRODUCTION: SCOPE OF STUDY

This study focuses on regularly scheduled water taxi service connecting commercial and recreational facilities within the Port of San Francisco's jurisdiction. The only property outside of the Port's jurisdiction that was assessed for its existing infrastructure capability was Fort Mason. As requested by the Port of San Francisco, this study did not look at the market for "on call" water taxi service. The study examined local ridership demand and water taxi systems in three cities to assess best practices applicable to the Port of San Francisco.

### B. IS THERE VISITOR DEMAND FOR A WATER TAXI SERVICE?

This study relies on secondary visitor and ridership data from existing sources. Due to limited funding and time, this study did not include actual market surveys of visitors to San Francisco.

#### 1. San Francisco Convention & Visitors Bureau (SFCVB) Information

The SFCVB does not collect data regarding the transportation preferences of visitors in San Francisco. However, visitor industry statistics for 2008 indicate that there are a greater majority of repeat visitors (17.5%) to San Francisco who may be interested in seeing San Francisco's waterfront on a short, less expensive non-excursion type of trip.<sup>1</sup> Given that only 25.8% of the visitors rent a car in San Francisco, water taxis would offer both the leisure and convention visitors (39.7% and 22.1% respectively) a shorter and different type of water transportation experience than is currently available. The fact that the top feeder markets are from California (Los Angeles: 12.7% and San Francisco Bay Area: 7.7% further indicates that a significant number of San Francisco's visitors are repeat visitors.

#### 2. Fisherman's Wharf Community Benefit District (FWCBD)

Research done in 2006/07 by the FWCBDC indicates that 39.7% of the Wharf's visitors arrive by public transit (bus or cable car) and 24.5% arrived by private automobile. The remaining 36.3% of visitors were unaccounted for in the study.<sup>2</sup>

#### **Conclusion**

*There is insufficient visitor data to project market demand for this service. However, the data does indicate a high volume of repeat visitors to San Francisco who may be interested in an alternative transit mode or visitor experience along San Francisco's waterfront. These visitors may also have already taken ferry excursion or commuter routes along the waterfront. The popularity of bike rentals, Segways and other landside tour products are evidence of visitors' interest in diverse products.*

### C. IS THERE DEMAND FROM PASSENGERS USING OTHER TRANSPORTATION MODES?

#### 1. F-Line Historic Street Car (SFMTA)

The F-Line started operating in 2000. Currently, the fleet consists of 24 streetcars in regular service. At its inception, the F-Line was transporting 10,000 passengers on a weekly basis.

Ridership data from a 2008 study indicated that ridership has grown to 18,920 passengers.<sup>3</sup>

- **Service Frequencies**

**Weekdays:** 6 minutes (7:00-9:00a), 8 minutes midday (9:00a-4:00 pm) and 6 minutes evening (4:00-6:00pm).

**Weekends:** 10 minutes (7:00-10:00a), 8 minutes (10:00am-6:00pm) and 15 minutes evenings (6-8pm).<sup>4</sup>

Service frequencies are the same all year round. MTA does not change the schedule in the peak tourist season.

- **Fares** - As of July 1, 2009: Adults - \$2.00/each way, children ages 5-17 & seniors – 75¢

- **Capacity**

The load capacity of each streetcar is 70 passengers per hour but MUNI has adopted a capacity standard of 85% of total capacity, or approximately 60 passengers per streetcar.<sup>5</sup>

- **Daily Ridership**

As summarized below, the F-Line Stops from the Ferry Terminal Area to Greenwich Street have the largest total load volume (total number of passengers on the vehicle when passing a specific stop) for the entire day.

<b><u>STOPS</u></b>	<b><u>On</u></b>	<b><u>OFF</u></b>	<b><u>TOTAL</u></b>
Embarcadero & Broadway	6,520	6537	13,057
Embarcadero & Washington	6,468	6132	12,600
Embarcadero & Green	6,456	6482	13,028
Embarcadero & Ferry Terminal	6,326	5403	11,729
Embarcadero & Greenwich	6,316	6569	12,885

## 2. F-Line Over-Crowding May Provide Water Taxis With a Market Opportunity

During the tourist season and peak hours, **the F-Line commonly arrives full by the time it reaches the Ferry Building** and subsequent Embarcadero stops because they have picked up passengers from busy stops along Market Street. The Market & 5<sup>th</sup> Streets stop and the Market & 4<sup>th</sup> Streets stop have more passengers boarding the train the Embarcadero stops throughout all hours of the day because they are close to major hotels and shopping centers.

**The streetcars often leave passengers standing on the platforms to wait for the next cars.** At peak times, waiting time for the F-Line can exceed the actual travel time to Fisherman’s Wharf. Veronica Sanchez Consulting took a test ride on a weekday (June 3, 2009) during the midday peak. **The wait at the Ferry Terminal stop was 22 minutes versus 15 minutes for the actual travel time on the streetcar to the Wharf.** When the streetcar arrived, it was overcrowded and the ride was uncomfortable. Southbound from Fisherman’s Wharf overcrowding was not a problem during this sample run and the waiting time for the train was only 3 minutes.

MTA recognizes this overcrowding problem and is proposing steps to increase the frequency and add more historic streetcars to this route. A recommendation of its recently approved Transit Effectiveness Plan is to increase peak midday service to seven minute intervals instead of the current eight; and five minutes instead of six in the afternoon peak.<sup>6</sup>

At its June 16, 2009 meeting, MTA approved the rehabilitation of 16 F-Line historic streetcars at a cost of \$18,712, 576. This project will take five years to complete.<sup>7</sup> MTA's Commission documents indicate that this is a rehabilitation project and not an expansion of service. Enhancement of F-Line service along the Embarcadero would increase operating costs — a financially difficult option for MTA.

**Table I (on page 5) is a projected estimate of diversions from the F-Line in both directions in three scenarios based on MTA ridership data (July-August 2008).**<sup>8</sup> In the northbound estimates, the passenger ridership numbers that are used are for embarkations at the Embarcadero & Ferry Terminal stop throughout the day (7:00am-9:59pm) and during peak hour service (10:00 am-7:00 pm). While passengers embark at other stations on the Embarcadero close to this one, the greatest volume occurs at the Ferry Terminal stop. This analysis uses this location because it is unlikely that passengers boarding the streetcar in the upper Market Street corridor will get off the train at the Embarcadero to board a water taxi. In the southbound estimates, data from the two stops in the Wharf area with the highest volume of embarkation are used for the purpose of this analysis.

This analysis does not include projected growth in ridership from the opening of the **Exploratorium** at Pier 17, **adding 850,000 visitors per year.**<sup>9</sup>

### **3. Other Embarcadero Streetcars**

MTA ridership data is unavailable for the N-Judah, the streetcar serving the South Beach area from Market Street so a similar analysis to assess projected ridership for water taxis from the ballpark or special events in that neighborhood could not be done. Therefore, this analysis only projects potential ridership numbers for travelers from the Ferry Building area to the Wharf.

**Table I**

<i>Projected Water Taxi Ridership based on Passengers Diversions from F-Line</i>				
<b>NORTHBOUND</b>				
	<u>All day Service (7:00a-9:59pm)</u>		<u>Peak Hour Service (10:00am-7:00p)</u>	
	Total passengers boarding at Embarcadero & Ferry Terminal Stop	1306	Total passengers boarding at Embarcadero & Ferry Terminal Stop	1035
<b>Estimated Diversions</b>				
<b>Aggressive Scenario</b>	Capturing 25% of passengers	327		259
<b>Middle Scenario</b>	Capturing 15% of passengers	196		155
<b>Conservative Scenario</b>	Capturing 10% of passengers	131		104
<b>SOUTHBOUND</b>				
	Total passengers boarding at:	2907		2749
	1. Jones Street & Beach Street			
	2. Total passengers boarding at Beach Street & Stockton Street	1545		1440
	Total of both stops	<b>4452</b>		<b>4189</b>
<b>Aggressive Scenario</b>	Capturing 25% of passengers	1113		1047
<b>Middle Scenario</b>	Capturing 15% of passengers	668		628
<b>Conservative Scenario</b>	Capturing 10% of passengers	445		419
<b>Total Projected Passenger Diversions (northbound &amp; southbound)</b>				
	<u>All day Service (7:00a-9:59pm)</u>		<u>Peak Hour Service (10:00am-7:00p)</u>	
	Aggressive Scenario	1440		1306
	Middle Scenario	864		784
	Conservative scenario	576		522
MTA data from July-August '08 F-Line ridership survey				

## D. Conclusions

1. *The F-Line is a formidable competitor to water taxis — unlike buses or subways in New York or Chicago. The F-Line provides direct and convenient landside transportation to San Francisco’s waterfront destinations. It has a dedicated right of way so it doesn’t conflict with street traffic. The historic streetcar in itself is a popular visitor experience.*
2. *The F-Line’s fare (\$2) is affordable and still cheaper than the cable car (\$5) or taxi (\$7) from the Ferry Building to Pier 39.*
3. *Travel times, once the passenger is on the vehicle, are fast.*
4. *The F-Line’s overcapacity problem during peak times could provide water taxis the market advantage needed to compete against the F-Line. By analyzing MTA ridership data for the Ferry Terminal stop, some assumptions can be made about the percentage of passenger diversion due to overcapacity. The estimated number of daily riders could range from a conservative scenario of 576 to an aggressive scenario of 1,440 passengers for just three stops on the Embarcadero for service between 7:00am-9:59 pm and from a conservative scenario of 522 to an aggressive scenario of 1,306 passengers for service between 10:00am-7:00pm (See Table I).*
5. *If the conservative scenario were to apply (522 to 576 riders per day, a 10% diversion), the next step would be to determine the financial viability of starting a service with this low level of ridership and the type of capital investment that could be sustained.*
6. *The question is how much more would riders be willing to pay to avoid waiting at the platform and the congested conditions on the train. Would they be willing to pay at least \$5.00 per trip (i.e. adult fare on the cable car) or taxi fare versus the \$2 per trip for adults? The operator may need to set a higher fare to recover the initial capital investment and operating costs for this service. However, a higher fare may be uncompetitive and discourage riders.*
7. *The frequency of the proposed water taxi service could also impact the passengers’ choice. If the service frequency is longer than fifteen minutes (estimated F-Line intervals plus some waiting time at the stop), the passengers may be discouraged from taking a water taxi at a higher fare.*
8. *F-Line data indicates that ridership fluctuates throughout the day. This is a consideration for water taxi service along with seasonal fluctuations due to weather conditions and visitor schedules.*

## II. OTHER WATER TAXI SYSTEMS

### A. New York City

#### 1. Background

New York water activist, Tom Fox, and successful real estate developer, Douglas Durst, founded New York Water Taxi in 2002. In November 2008, New York Water Taxi purchased Circle Line Harbor Cruises. In 2008, the company transported 500,000 passengers.<sup>10</sup> Despite the name of the fleet, **New York Water Taxi is not an “on call service.”** Instead, the company offers two types of regularly scheduled water transit services: 1) commuter ferry service and 2) a tourism-oriented service, “Hop-on/Hop-off” on weekends for passengers who want to visit Manhattan’s popular visitor attractions.

#### a. Commuter Services

**New York Water Taxi** offers four different commuter routes departing from Manhattan. Some visitors do take the East River Commuter Ferry for views of Wall Street and Brooklyn. This route serves Water Taxi Beach near the Hunters Point, a popular recreational destination during the day and dining and entertainment center during the evenings.

#### IKEA Route

New York Water Taxi also offers a free IKEA route from Wall Street to New Jersey is very popular with locals who will take the boat during lunch hours or after work. The service is operated with one 74 passenger vessel on weekdays and one 149 passenger vessel on weekends.

#### b. Hop On/Off Water Taxis

The service runs only on weekends from May to October. Tourists, especially international visitors, find this transportation option preferable than the subway because it less confusing and easier to take than the subway or bus. Even though the subway fare is \$2.00 one way and \$7.00 for an all day pass. Subway stations are often 15 minutes walking distance from shore-line attractions. This service has a total of nine stops with an average of five minutes in between stops.

### 2. Vessels

The company started with 3 boats and now has 10 boats (See Table III-A on page 13 for vessel specifications). The Hop On/Hop Off service is operated with three 74 passenger boats. All the boats were built new.<sup>11</sup>

### 3. Facilities

Circle Line, New York Water Taxi’s parent company, has secured federal funds to construct facilities. Recently, the company secured \$5.5 million of federal and city funds to pay for new docks at three locations served by its commuter boats. The City of New York is also spending \$500,000 to develop a five-borough water taxi service plan to explore additional ferry locations.

#### 4. Fares

The adult fare for New York Water Taxi's Hop On/Hop Off service is \$20 for a one day pass or \$25 for a two day pass. Commuter fares range from \$5.50 to \$10 one way depending on the route, while the IKEA route is free.

#### 5. "Lessons" for Port of San Francisco

- a. *New York Water Taxi relies on several types of tourism products for its overall financial sustainability. **It is not a stand-alone water taxi operation.** Although not verified by the company, there appears to be cross-subsidies between the different company brands. For example, the commuter services or excursion business may help offset operations costs for the water-taxi service. The company also receives public funds for operating and capital costs.*
- b. *Company was very successful in striking a partnership with IKEA for service to their facility at no cost to the passengers. This is a worthwhile business model for the Port to consider for future high volume development projects.*
- c. *NY Water Taxi's Hop On/Off Service is competitive because there is no direct, convenient public transit service like the F-Line for connecting the city's waterfront.*
- d. *NY Water Taxi has an aggressive marketing strategy and successfully partners with landside venues to promote their destinations and events. The Hunters Point Landing stop is marketed to locals as an entertainment destination.*
- e. *The company has a strong development/real estate focus given one of their founding partners' success in that industry. This underscores the benefit of including water taxi projects in the port's future development projects.*

#### B. Chicago

##### 1. Background

There are two water taxi companies in the city of Chicago: Chicago Water Taxi and Shoreline Water Taxi.

**Chicago Water Taxi** is a subsidiary of Wendella Sightseeing Company, a family owned tourism business that has been in operation since 1935. The company has operated a water taxi service since 1962, before the term "water taxi" was formally adopted in 1999. **Chicago Water Taxi's** business model is specifically focused on serving suburban commuters who arrive daily at the Ogilvie train station.<sup>12</sup> The company estimates that they served nearly 250,000 passengers last season.<sup>13</sup>

**Shoreline Sightseeing**, the owners of **Shoreline Water Taxi**, has been a tour operator in Chicago since 1939 and has provided water taxi service since 1996. **Shoreline Water Taxi's** business model incorporated commuter and tourism service using the same vessels, with commuter service offered during morning and evening rush hour.<sup>14</sup>

## 2. Vessels

**Chicago Water Taxi** operates two water taxis on the Chicago River while **Shoreline Water Taxi** has nine vessels operating on both the Chicago River and Lake Michigan (See Table III-A on page 13 for vessel specifications).

## 3. Facilities

In some cases, the water taxi operator built the docks, and in others, the docks were part of the original construction of the buildings on the Chicago River and Lake Michigan (19<sup>th</sup> Century).

## 4. Fares

Chicago Water Taxi's weekday fares range from \$2-\$4, with a \$2 increase on weekends. Shoreline Water Taxi's fares range from \$3-\$13 with the median fare of \$6-\$7 for trips from Navy Pier to the Field Museum and Sears Tower to Navy Pier.

## 5. "Lessons" for the Port of San Francisco

*Chicago water taxi operators do not receive a subsidy for their operations. They have **business models that offset the cost of operating water taxi service with revenue from other passenger services.***

- ***Chicago Water Taxi** intentionally operates their water taxi service as a "loss leader." They focus on the commuter oriented taxi service to promote their charter business. They offset the losses of the water taxi service with revenues from their charter and tour operations.*
- ***Shoreline Water Taxi** incorporates commuter service into a business model that is built around inexpensive transportation of tourists between major attractions, and the architectural tours. Commuter fares are limited to rush hours with regular service the remainder of the day at significantly higher fares.*
- *They either lease their docks from the property owners that built them, or the company has owned them since they started operations in the 1930's.*

*In Chicago, the novelty of water transit is a major marketing advantage over public transit, especially from March through October when the weather is warm. Locals are accustomed to traveling by subway, train, and bus, but choose the water taxi because public transit is overcrowded. The chance to take to the water for a few moments of peace and scenery at a low price is very attractive.*

## C. Long Beach

### 1. Background

In 1998, Long Beach Transit started water transit to support the city's economic development efforts. The City sought to establish itself as tourism and convention destination and providing convenient transit options via land and water was important to this objective.<sup>15</sup> The impetus for creating the service was the construction of the Long Beach Aquarium. The vision was to connect Long Beach's new tourism destination with its icon attraction, the Queen Mary. The

agency operates two services:

### **AquaLink**

- Stops at two tourist venues: Aquarium & Queen Mary
- Frequency: **every hour and 40 minutes.**
- Peak period: May-September

### **AquaBus**

- Six stops at Long Beach Tourism destinations: Queen Mary, Shoreline Village at Parker's Lighthouse, Catalina Landing, Pine Avenue Circle (restaurants & retail), and the renovated Maya Hotel.
- Frequency: **Peak season (May-Sept): every 30 minutes, off-peak season: every hour.**

**Annual Ridership:** FY 2006: 38,831; FY 2007: 44,895 ; FY 2008: 42,277

## **2. Vessels**

The new service was started with two smaller, 49 passenger boats, AquaBus. In 2001, the agency added one larger 75 passenger boat, the AquaLink (See Table III-A on page 13 for vessel specifications).

The agency purchased the two AquaLink boats and the AquaBus boat with federal funds. It is currently seeking new federal funds to purchase a second boat to increase the frequency on the AQUALINK service to make it more attractive as a commuter service for residents of Alamitos Bay Landing.

## **3. Facilities**

### **a. Docks**

Service started with existing city dock and Long Beach Transit has not built any new infrastructure. The City of Long Beach expended funds in retrofitting them and making them ADA accessible. The City continues to maintain the docks.

### **b. Funding**

Long Beach Transit operates the water taxi service as a public-private partnership. Catalina Express operates the boats under a contract with Long Beach Transit.

- Long Beach Transit leases the vessels to the operator for \$1.00/year and Catalina Express operates the vessel for a fee of \$105.69/hour for the AquaLink and \$71.77/hour for the AquaBus.
- The water taxi service is not a self-sustaining operation – it depends on revenue from **bus operating funds subsidies**. For example, last year, Long Beach Transit

paid Catalina Express \$475,000/year to run the service and collected \$115,000 in farebox revenue. The difference was funded from the **agency's operating funds, including transit-operating funds from state and regional entities.**

- No subsidies are received from waterfront tenants for this service and this has never been proposed.
- With the addition of the second boat in the AQUALINK service, the agency is seeking to increase in farebox revenue and reduce its operating subsidy contribution.
- Long Beach transit received federal funding for the water taxi service. The funds passed through Caltrans.<sup>15</sup>

#### 4. Fares

The AquaLink fare is \$5 per trip, while the fare for the AquaBus is \$1 per trip.

#### 5. "Lessons" for the Port of San Francisco

- *Smaller size of vessels is desirable for connecting the Port's visitor destinations.*
- *Capital investment - **Initial investment to start service was kept low** because the docks already existed and federal grants were obtained for the boats.*
- *Despite minimal capital investment and growing annual ridership numbers, this **tourist dependent service requires operating subsidies.** Operating agreement terms with Catalina Express may be a model of business terms with a prospective operator.*
- *Long Beach transit is trying to build up its commuter ferry business to increase farebox revenue. This example raises the question of whether it would be beneficial for the Port to seek an operator with existing commuter ferry routes or excursion products that can provide a cross-subsidy for the water taxi service.*

### III. RECOMMENDATIONS FOR THE PORT OF SAN FRANCISCO'S WATER TAXI SERVICE

#### A. Vessels:

##### 1. Basic Requirements

- a. **Minimum number of vessels: 3** (6 vessels if goal is 15 minute intervals)  
Two to operate the service and a spare vessel.
- b. **Capacity:** 25-49 passengers.
- c. **Dimensions**—Minimum specifications for freeboard will be determined after final selection of specific docks.
- d. **Speed:** 12-16 knots: Speed must be sufficient to make water taxi competitive or faster than F-Line waiting times (at peak periods) and travel times (15 minutes).

- e. **Price Range per vessel:** \$295,000 - \$2.4 million.
- f. **USCG Certification.**
- g. **Crew:** One operator and one deck hand; uniformed crew.
- h. **Propulsion:** biodiesel; solar panels; twin screw or twin waterjet.
- i. **Interior:** Heated cabin; open or covered cabin convertible preferred; easy and safe boarding layout; clean; one unisex toilet minimum, and ADA compliant.
- j. **New construction:** If new, proven builder and design.

## 2. Operator's Basic Requirements

- a. History of quality service, sound financials, and prior management experience.
- b. Crew capability and strong certified training program.
- c. Has a security plan.
- d. Willing to use and pay tariff rates for existing docks and ramps at the Port of San Francisco.
- e. Strong marketing experience to promote the new service and develop partnerships to promote special event options (baseball, fireworks, etc.).
- f. Maintenance and fueling capability.
- g. Other considerations for Port of San Francisco: year-round service versus seasonal.

**TABLE III-A**  
**EXAMPLES OF EXISTING WATER TAXI VESSELS**  
**(BY PASSENGER CAPACITY)**

LOCATION	VESSEL	PASSENGERS	PRICE	SPEED	LENGTH	BEAM	DRAFT
New York City*	Seymour Durst	149	\$2.2M	26 knots	21.95m	8.10	1.55m
Chicago*	Shoreline Water Taxi	88	\$500K- \$750K				
Long Beach*	AquaLink	75	\$2.7M	26 knots	64 ft.	24 ft.	1.37m
New York City*	New York Water Taxi	74		24 knots	54 ft.		5.5 ft.
CW?	Atlantis	71	\$850K	26 knots	16.48 m	4.24 m	1.40 m
Maui	Maui Magic	71	\$925K	25 knots	16.45 m	5.18 m	74 m
Australia	Crowther Multihulls	60	\$1.45M	26 knots	60 ft.		
Long Beach*	AquaBus	49	\$295K		40ft.	12ft.	
San Francisco	Westar Marine Services (Crewboat)	49	\$35K	16-20 knots	65ft.	18ft.	4.5 ft.
Maui	Ocean Explorer	49	\$875K	26 knots	16.45 m	4.26 m	.74 m
Anacortes, WA	Sylvan Spirit	49	\$1.2M	16k knots	1.52 m	5.40 m	1.21 m
Monterey Bay		48	\$1.63M	13 knots			
Chicago*	Shoreline Sightseeing	40					
CW?	All American Marine	34	\$900K	30 knots	38 ft.		

*\*Indicate services in cities that were detailed in this report.*

## B. Facilities

An analysis of 12 landing sites at the Port of San Francisco and Fort Mason was done to develop a list of suggested water taxi stops that the Port could recommend in a Request For Proposals (RFP) to interested operators (See Table III-B on page 15). Readiness of facilities and the need for minimal capital investment were key considerations given the Port's lack of funding for capital infrastructure investments for this start-up service.

Nine different factors were considered including the state of existing docks, water depth, and navigational conflicts. Given the examples of successful water taxi operations in other cities, facilities were also examined for their proximity to key tourism and recreational destinations; and adjacent residential commercial areas. The convenience of docks to the street level and their visibility to street pedestrian traffic were considered important factors for attracting riders.

### 1. Short-term Sites

From reviewing the list of 13 sites, we concluded that six existing landing facilities could be ready for use as water taxi docks in 2010-2012. This time period is an aggressive time schedule if the Port Commission agreed to issue an RFP by the end of 2009. These facilities were grouped into the following four areas of San Francisco's waterfront:

#### a. AT&T Park & South Beach

- Pier 40 (Redevelopment Agency facility)

#### b. Ferry Building

- Pier 1 1/2 Guest Dock—San Francisco Waterfront Partners

#### c. Pier 39

- Pier 39 South (facing existing cruise terminal) or
- Pier 41 (Blue & Gold Fleet docks for ferries)

#### d. Central Fisherman's Wharf

- Pier 43 1/2 (current Red & White Fleet) or
- Hyde Street Harbor (fishing harbor)

*See Exhibit III-A on page 16 for a suggested water taxi route connecting these four major areas. With viable terminal locations.*

### 2. Future Sites Require Future Planning and Investment of Infrastructure

#### a. Fort Mason Herbst Theater and Fort Mason South Face (GGNRA)

**b. Pier 15-Exploratorium** The proposed lease requires construction of dock within 5 year anniversary of lease execution. If the lease is executed in 2009, the water taxi dock could be completed in 2014 (See Exhibit III-B on page 17 for a proposed Site Plan of the dock).

**c. Pier 48** (adjacent to proposed SWL 337) mixed-use development awarded to Giants, Wilson-Meany, et. al). Current project design includes a water taxi dock, as required by the Port of San Francisco's development requirements.

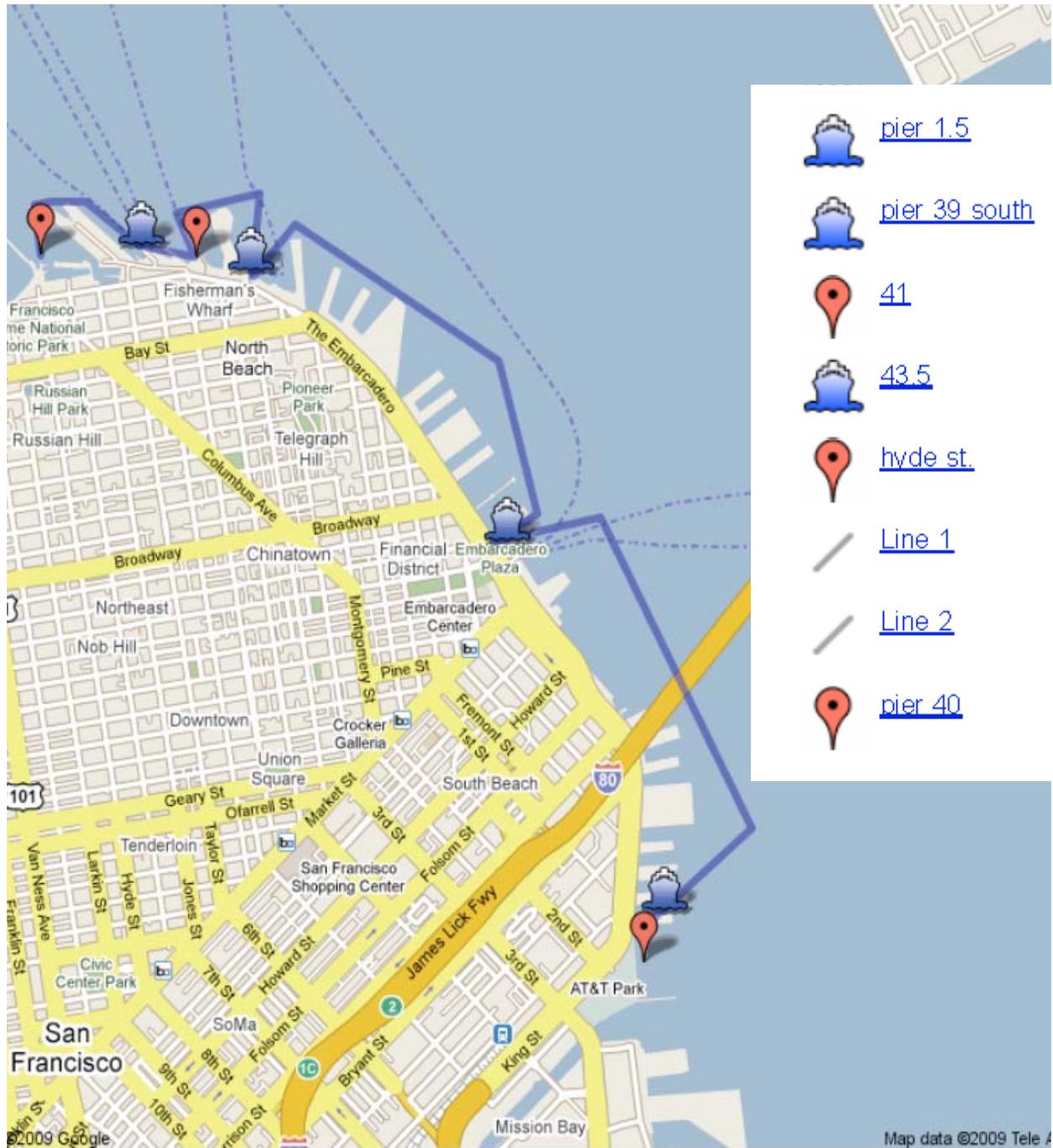
**TABLE III-B**

**Analysis of Potential Port of San Francisco Landing Sites**

Facility	Adjacent Use	Current Operator	Customer access	Existing Float	Float Freeboard	Float Strength	ADA?	Water Depth Hazards ?	Access/Navigational conflicts
Fort Mason	Marina, Ft Mason	GGNRA	Good	No	None	n/a	n/a	Deep	Swells heavy at times
Hyde Street	Fisherman's Wharf	Fishing boats	Poor	Yes	Ladders	Med	Yes	Deep	Swells, busy area, swimmers
Pier 45	Fisherman's Wharf	Historic ships	Poor	No	n/a				Don't use Fish tieup area
Pier 43 1/2	Fisherman's Wharf	Red and White	Excellent	Yes	medium	Heavy	Yes	Deep	Busy with Red and White
Pier 41	Pier 39 Fishwharf	Blue and Gold	Excellent	Yes	High to Low	Heavy	Yes	Deep	Busy with Blue and Gold ferries
Pier 39 South	Pier 39 Fishwharf	Blue and Gold	Excellent	Yes	Variable	Medium	Yes		Available
Pier 17/15	Exploratorium	POSF	Mid Embarcadero	No	n/a	n/a	n/a	Medium	Piling face poor, wind and swells
Pier 9	Ferry Building	Signature	Through office	Yes	Medium	Heavy	Yes	Deep	
Pier 1.5	Ferry Building	Waterfront Partners	Good	Yes	Medium	Lt/Med	Yes	Deep	Available
Ferry Bldg	Ferry Building	Port of San Francisco	Excellent	Yes	Variable	Heavy	Yes	Deep	Currently used by large ferries
Pier 38	Ballpark/ China Basin	Private tenant?	Good	Yes	Low	Light	Yes	Deep	Poor condition of floats
Pier 40	Ballpark/ China Basin	South Beach Harbor	Good	Yes	Low	Medium	Yes	Deep	Poor condition of floats
Pier 48	Ballpark/UCSF/biotech offices	POSF	Gated	No	n/a	n/a	n/a	Medium	Piling face poor

## 2. FACILITIES READY FOR WATER TAXI SERVICE 2010 - 2012

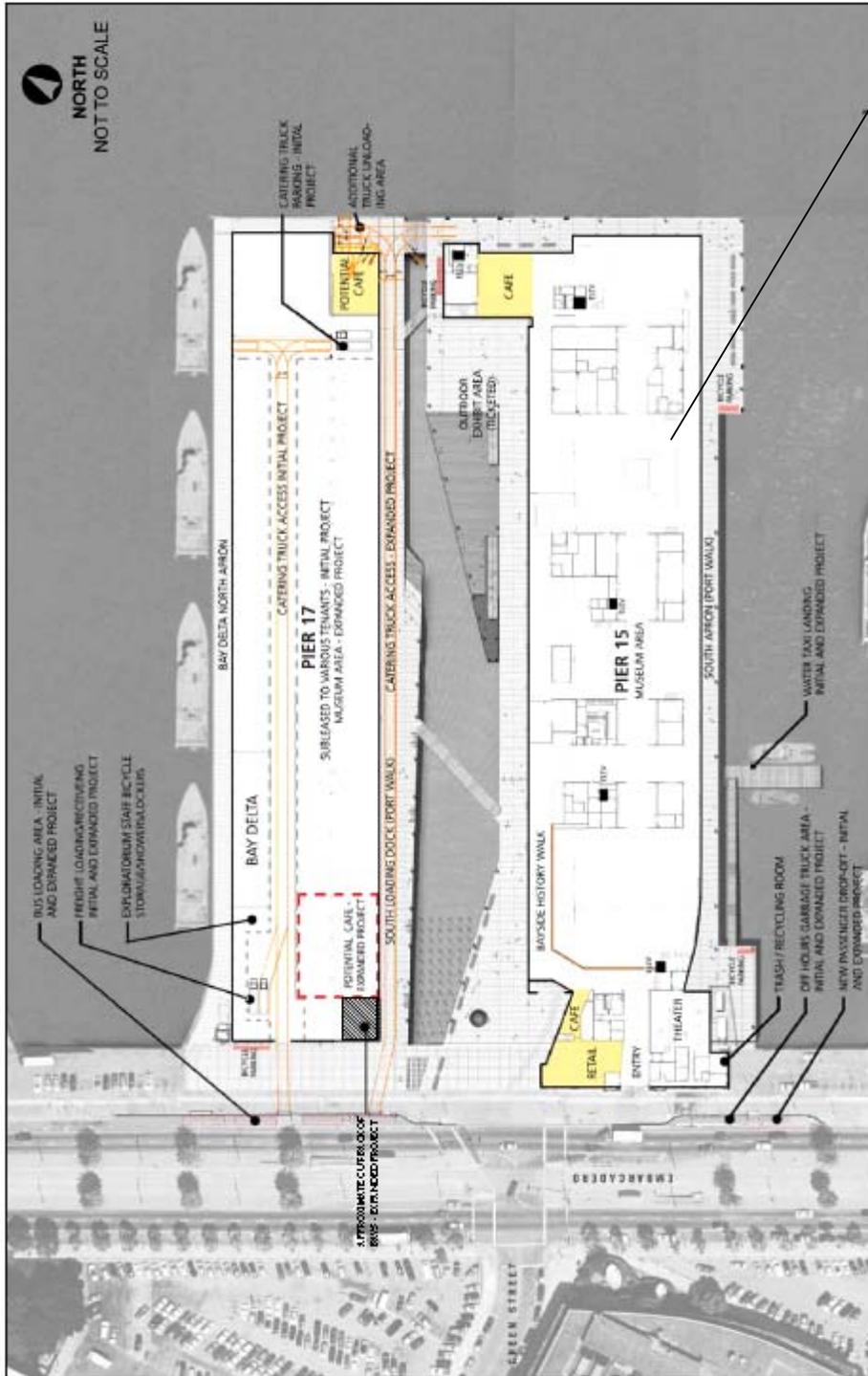
### EXHIBIT III-A



\*\* Exploratorium Landing may be added to this initial route when construction of the dock is completed. Proposed lease requires Exploratorium to complete dock construction within 5 years of anniversary of lease execution (Assuming lease is executed at the end of 2009, construction could be completed by 2014).

## EXHIBIT III-B

### Proposed Site Plan Exploratorium Draft Environmental Report (January 28, 2009)



- Projected number of annual visitors: 850,000
  - Projected number of employees 400<sup>15</sup>
  - Projected "completion date: 2014 assuming lease is executed in 2009. Proposed lease requires completion of dock within five years of lease execution. Exploratorium also required to start depositing construction funds up to \$800,000 into reserve account "Dock Account."
- Pier 15 Proposed  
Water Taxi Dock

## C. Summary of Recommendations

### 1. Financial Sustainability

#### a. Keep initial capital investment low

- (1) Existing ridership demand does not justify a substantial capital investment in construction of new boats and facilities that would require high fares to recover initial investment, fund operating expenses, and return a profit.
- (2) Other U.S. cities' water taxi operations are not competing with direct, convenient and affordable public transit service (such as those offered by the F-Line to Fisherman's Wharf and the N/Judah & T-Line to AT&T Park).
- (3) F-Line fares at \$2/adult/trip are extremely affordable. To be competitive, future water taxi operator must keep fares within a reasonable price range (\$5-\$8 per trip) and have a high frequency of service (no more than 15 minute intervals).
- (4) Water taxis will also have to compete with other modes of landside transportation (including walking) on the Embarcadero. A taxi fare from the Ferry Building to the Wharf is \$7.00, an affordable fare for two passengers or a family.
- (5) Water taxi service to the ballpark would have to compete with existing public ferry operators from Marin, Vallejo and East Bay.
- (6) Ridership demand for a new San Francisco water taxi service is dependent on diversions from the F-Line during the peak hours and peak tourism season. The competitive edge that water taxis have to the F-Line is that they can offer a less congested and comfortable ride; and a Bay experience.
- (7) Water taxis will be appealing to the large number of repeat visitors to San Francisco. Although not independently verified with marketing data, we assume from the experiences of other cities, that visitors are interested in taking a short ride on the Bay to enjoy views and take pictures. The water taxi may be a less expensive alternative to S.F. Bay excursions which presents competitive issues for the Port's excursion operators.
- (8) The Exploratorium may be the "ridership linchpin" of San Francisco's water taxi system. The project's estimated 850,000 visitors per year and employees may provide a year-round and stabilized ridership. The Exploratorium's water taxi dock has the potential of becoming an "icon" water taxi dock similar to the IKEA dock for New York Water Taxi. The Port should pursue creative financing ideas with the Exploratorium and in its RFQ for a water taxi operator that would advance the schedule for construction of this dock. Additionally, we recommend creative joint-marketing and "branding" opportunities based on the

successful models of other cities' water taxi operations.

## **C. SUMMARY OF RECOMMENDATIONS (CONTINUED)**

### **b. Seize opportunities to attract an operator with diverse business portfolio**

- (1) Water taxi operators in New York and Chicago rely on commuter and other tourism products to ensure profitability. Long Beach is seeking to add commuter service to reduce the subsidy of transportation funds.
- (2) Given seasonal and speculative market in first years, the Port should seek an operator that does **not have to exclusively rely on water taxi service for their profitability.**
- (3) A new San Francisco water taxi operation can benefit from the maintenance, operations, marketing and administrative infrastructure of existing companies. Existing companies may see value of water taxi service as a marketing tool for other products they offer.

## **2. Develop a phased approach for starting water taxi service**

### **a. Short-term (2010-2012)**

Start service in 2010 (contingent on completion of RFQ process in 2009). Suggested steps:

- (1) Select locations in South Beach, Central Waterfront, Pier 39 area and Fisherman's Wharf. Include Exploratorium stop at Pier 15 in short-term plan if construction will be completed within this timeframe.
- (2) Complete an environmental review process.
- (3) Research PUC requirements.
- (4) Complete any necessary changes to existing leases for facilities where boats will dock.
- (5) Set a reasonable tariff rate.
- (6) Port should give high priority to selecting an operator with demonstrated marketing abilities. Given speculative ridership numbers, the operators will need to generate business by partnering with existing tenants event producers (i.e. fireworks, concerts, parades, and holidays) to operate water taxi service.

### **b. Long-term**

- (1) Port should identify additional landings by conducting inspections and assessment of facilities to evaluate infrastructure costs. It should continue discussions with tenants on identified short list of sites for necessary lease changes. It should pursue funding opportunities from new developments or existing tenants.

- (2) Port should collaborate with UCSF & other Mission Bay tenants on viability of starting a commuter service from Pier 48 area to South Beach so that service is not dependent on clientele from AT&T games or events.
- (3) Port should continue working with developers of Pier 48 and SWL 337 in the design and planning of their water taxi dock. The project's commercial and recreational uses have the potential of generating a sizeable and sustaining ridership base for the water taxi service.
- (4) Port should work collaboratively with GGNRA in their long-term planning of sites at Fort Mason and the Presidio. GGNRA locations would be very valuable to generating high ridership volume for water taxi service to justify a higher capital investment in boats. GGNRA may have access to federal capital funds from sources that would not compete with WETA or Golden Gate Bridge District.<sup>17</sup>

## Endnotes

1. San Francisco Visitor Industry Statistics 2008, SF Convention & Visitors Bureau.
2. Fisherman's Wharf Community Benefit District, Research Overview (2006-2007).
3. SFMTA Staff Report, June 16, 2009 meeting, Calendar Item #10.6.
4. Exploratorium Relocation Project Draft Environmental Impact Report (January 28, 2009), Table III-E-3 & Table II. E -4.
5. Exploratorium Relocation Project Draft Environmental Impact Report (January 28, 2009), Table III. E-18, Footnote B.
6. MTA Line F- Market & Wharves Recommended Route Alignment, Transit Effectiveness Project, staff recommendations. [www.sfmta.com/cms/mtep/documents/Line\\_F.pdf](http://www.sfmta.com/cms/mtep/documents/Line_F.pdf).
7. SFTMTA June 16, 2009 Staff Report, id.
8. SFMTA, F-Market Total ON, OFF, Passenger Load Data gathered July 08-August 08
9. Exploratorium Relocation Project DEIR (January 28, 2009), Chapter IV Other CEQA Considerations, page 4-2.
10. Information regarding New York Water Taxi was derived from online sources ([www.nywatertaxi.com](http://www.nywatertaxi.com)) and site visits from a Veronica Sanchez Consulting team member. The company did not respond to consulting team's request for financial information.
11. Vessel Information from Ted Sondergaard, General Manager, Harbor Experience Companies (August 2009).
12. Emily Tapia, Analyst, Metropolitan Planning Council, Interviewed June 5, 2009.
13. Mike Borgstrom, Chicago Water Taxi, Interviewed June 18, 2009.
14. Information regarding Shoreline Water Taxi was derived from online sources ([www.shorelinewatertaxi.com](http://www.shorelinewatertaxi.com)). The consulting teams' efforts to receive information directly from company officials were unsuccessful.
15. Information regarding Long Beach AquaBus and AquaLink derived from [www.lbtransit.com](http://www.lbtransit.com) an interview with Guy Heston, Chief Operating Officer, Long Beach Transit (June 24, 2009), and a site visit by Veronica Sanchez (June 13, 2009).
16. Exploratorium Relocation Project DEIR, page IV-2.
17. The consulting team did not receive responses from GGNRA officials regarding its planning process for connecting GGNRA properties via water taxi.