

AGENDA ITEM 9
Treasure Island Development Authority
City and County of San Francisco
Meeting of October 9, 2024

Subject: Treasure Island Ferry Service Planning Update

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Executive Summary

In June 2021, the Treasure Island Mobility Management Agency (TIMMA) Board approved a Memorandum of Understanding (MOU) between TIMMA and San Francisco Bay Area Water Emergency Transportation Authority (WETA) that defined a framework to establish a new ferry service from Treasure Island to the Ferry Building. Pursuant to the MOU, TIMMA developed a draft Treasure Island Ferry Planning Study (Ferry Study) in collaboration with WETA. There have been significant developments in ferry service since then, including the initiation of interim ferry service by the developer in 2022 and requirements for zero-emission service on short routes. This information item updates the Treasure Island Development Authority (TIDA) Board regarding these recent ferry service developments and presents findings from the Ferry Study, as well as proposed next steps for ferry business planning.

Background

The 2011 Treasure Island Transportation Implementation Plan (TITIP) adopted by TIDA and the Board of Supervisors identified new and expanded transit services on Treasure Island to be implemented with new housing development. The transit services include expanded Muni services, a new East Bay bus service from Treasure Island to Oakland, and a new ferry service from Treasure Island to San Francisco Ferry Building. The TITIP called for ferry service at 15-minute frequency during peak periods at full buildout, pending funding.

In June 2021, through Resolution 21-08, the TIMMA Board approved an MOU between TIMMA and WETA that defined a framework to establish a new ferry service from Treasure Island to the Ferry Building. The WETA Board also approved the MOU in 2021. The underlying objective of the MOU is for the recommended ferry service to be financially feasible for both agencies in terms of capital and ongoing operating costs.

This memorandum presents the Ferry Study findings, describes related ferry service planning and electrification efforts, and outlines next steps.

Discussion

Ferry Planning Study. The purpose of the Ferry Study was to study ridership demand, required vessel size, hours of service, diesel versus electric propulsion, and to study operational costs, fare structures and needed subsidy. The Ferry Study was intended to provide analysis for the next step, a business plan and operating agreement between TIMMA and WETA. The Ferry Study was substantially complete in Spring 2022; however, the TIMMA program was paused in Summer 2022 through January 2023. The study team has recently concluded the ferry planning study and the purpose of this memorandum is to inform TIDA of the study's main findings. Key recommendations include:

- Phase service incrementally to match demand. Since ridership will increase with development on the Islands, service can be provided initially with one vessel, operating at least hourly, and expand as demand grows. Service could ramp up to 15-minute frequencies at peak at full buildout, pending available funding.
- Provide service all day, not only peak hours, on weekends as well as weekdays. Demand projections and peer systems showed that there is strong weekend demand. The analysis was based on a span of service of 14 hours of service per day.
- Utilize smaller vessels in the early years. More frequent service with smaller vessels and smaller crews performs better than service with larger vessels during initial years of service when demand is lower.
- Provide service with electric vessels. When the study began, both diesel and electric propulsion were options. Since the California Air Resources Board (CARB) has mandated that short ferry routes (less than three nautical miles) must be zero emission, the diesel-only scenarios were eliminated from consideration.

The study documented capital and operating costs at a high level and recommended a detailed analysis of capital and operating sources and uses. This includes refining operating costs of electric service to reflect time-of-day cost fluctuations and other variables.

The Ferry Study included a discussion of the context for fare policies including the Bay Area context, survey of ferry fare structures across the U.S., and fare elasticities for estimating demand. It included a preliminary study of operating cost scenarios with base fares ranging from \$2.50 to \$5.00 and resulting changes in ridership and operating revenues. Based on these preliminary figures, a subsidy of approximately \$2.5 million would be required. The Ferry Study recommended further analysis with WETA of fare policy and strategy for operating funding and subsidy to balance affordability with financial sustainability for the system.

Interim Service. In 2022, Treasure Island Community Development (TICD), the master developer of Treasure Island and Yerba Buena Island, began a privately funded interim ferry service. TICD obtained permits from the California Public Utilities Commission (CPUC) and selected PROP SF to provide the interim service after considering several operators. The interim service operates with a single 49-passenger diesel-powered vessel between the Treasure Island Ferry Terminal and the San Francisco Ferry Building, 7:30 am to 8:20 pm on weekdays and 9:30 am to 8:50 pm on weekends. The service operates roughly hourly on average, though headways

vary between 35 to 40 minutes during peak periods and up to 120 minutes in one instance. The fare is \$5.00 each way, and a monthly pass for unlimited rides is available for \$150. Tickets must be purchased on TICD's website or app; the service does not accept Clipper.

Ridership on this service was low in the beginning, averaging 1,857 monthly passengers in its first year. Recently, as more people have moved to the Islands and the ferry service is becoming more well known, ridership on the interim service has increased to an average of 2,642 monthly riders in the most recent 12 months. Notably, events such as TreasureFest have attracted many riders, with as many as 2,000 passengers on February 24 and 25, 2024, the opening weekend.

WETA's 2050 Service Vision. In May 2024 WETA's Board approved its 2050 Service Vision, committing to enhance, expand and electrify regional water transit over the next 25 years. The plan, developed over the past two years with community input, describes WETA's vision for the ferry system, the criteria for evaluating routes, and the roles, responsibilities, and financial commitments of WETA and its partners in enhancing and expanding ferry service. The 2050 Vision map includes service to Treasure Island and Mission Bay in Tier 1.

The Expansion Policy requires that expansion services include a minimum of 9 daily peak direction weekday trips, and that funding is identified to fully support operations for a minimum of ten years. In addition, the policy states that the WETA Board will be solely responsible for adopting fares for services operated by WETA. We will work closely with WETA staff and Board to develop a fare structure for the Treasure Island ferry service that is consistent with TIMMA's program goals as well as WETA policy.

Electrification. WETA continues to make progress on its Rapid Electric Emission-Free (REEF) Ferry Program, having secured \$136 million in federal, state, and regional funding to electrify its ferry service – most recently an \$11 million grant from the Federal Transit Administration (FTA) for electric ferry vessels. TIMMA is seeking funding for the ferry charging infrastructure through several competitive grant opportunities, including the Solutions for Congested Corridors Program and the Environmental Protection Agency's Community Change Grant program. The 2050 Service Vision commits the agency to focus on adding zero-emission vessels to its fleet through new construction and conversion of existing vessels, when feasible.

Phase 1 of the program includes vessels and infrastructure at Treasure Island, Mission Bay, and Downtown San Francisco. Phase 2 allows for electrification of the Central Bay (Oakland/Alameda) routes.

WETA recently closed the solicitation window for an RFP for construction of all-electric 149-passenger vessels, and is now reviewing proposals. WETA and TIDA staff are working together to design, permit and construct electrical charging infrastructure at the Treasure Island Ferry Terminal, which will allow the vessels to charge at both ends of the route and more frequent service. TIDA and WETA submitted a service application to SFPUC in July 2024, and are preparing to submit applications to SF Planning and the San Francisco Bay Conservation and Development Commission for review in October 2024.

Business Plan. TIMMA has initiated work on the Treasure Island Ferry Business Plan, in collaboration with WETA. The Business Plan will build on the Ferry Study recommendations and incorporate the recent developments described above. The Business Plan will include:

- Development Schedule – update with TIDA’s latest schedule for build-out.
- Ridership Projections – update based on updated land use and occupancy assumptions and the 2023 San Francisco County Transportation Authority (Transportation Authority) travel diary survey data. Actual ridership data from the interim ferry service will help validate earlier projections and inform service planning.
- Service Plan – detail the service plan including hours of service and frequency for weekdays and weekends and consider interlining opportunities and timed transfers where warranted.
- Fare Policy and Fare Structures – building on the Ferry Study, develop a fare policy that balances affordability with revenue generation for this new service, and alignment with TIMMA’s twin goals of transit mode share and financial sustainability. Fare policy will include the base adult fare and discounts for seniors and youth. Fare policy will incorporate the Treasure Island Transit Pass and consider the possibility of integration into the BayPass, if the Metropolitan Transportation Commission (MTC) continues that program and it is financially feasible.
- Operations and Maintenance (O&M) Costs – detail O&M costs, which include labor and fuel/power; electric vessel O&M costs, which includes maintaining a fleet of spare vessels; facility O&M costs, which includes terminal facilities and their associated upkeep costs; system administration costs, which are required to support the service on an annual basis; and any periodic maintenance dredging work, to maintain operations, if it is required.
- Capital Maintenance Costs – document the lifecycle costs such as vessel and terminal rehabilitation and replacement.
- Funding Strategy – develop a funding strategy for the first years of operations to include sources and uses for O&M and Capital Maintenance costs, and document sources and uses for initial Capital Expansion costs which are almost fully funded. Sources of O&M funding include the developer-funded Operating Subsidy, fare revenues including the ferry share of revenues from the multi-operator transit pass, WETA federal formula funds, and anticipated future congestion management revenues.

In May 2024, the Transportation Authority approved the programming of approximately \$1.6 million in STA Block Grant funds. The City and County of San Francisco included ferry operating funding in its Federal Highway Administration Congestion Relief Program grant application, to help support ferry service in the initial years. Other potential sources include regional funds such as Regional Measure 3 which is administered by MTC with WETA.

- Roles and responsibilities – confirm roles and responsibilities of the numerous agencies involved in delivering Treasure Island ferry service: TIMMA, WETA, TIDA, the Port of San Francisco, San Francisco Public Utilities Commission, SFCTA.

Next Steps. TIMMA expects to complete work on the Business Plan next summer and will return to the TIDA Board with an update on service plans and fare policy.

Financial Impact

This is an informational item; there is no financial impact.

Ferry Service Planning Update

Today's Presentation

- Treasure Island Today
- Ferry Planning Study
- Interim Ferry Service
- WETA's 2050 Service Vision
- Electrification
- Ferry Service Business Plan

Treasure Island Today

- Almost 1,000 new homes will be completed by early next year
- Maceo May (105 units) is occupied – multiple other affordable buildings in development
- Several new parks recently opened
- West Side Bridges, Hillcrest, Multi-Use Path in progress on YBI
- Disposition and Development Agreement Amendment ensures continued momentum



TI Ferry Planning Study

- Study scope
 - Ridership demand projections
 - Service scenarios
 - Operating costs and revenue/subsidy analysis
- Year 1 ridership demand projections
 - 650-725 weekday trips
 - 415-460 weekend trips
- Based on 2021 assumptions
 - 2021 development schedule
 - Toll in place, \$2.75 fare



Scenarios Studied

#	DAYS/HOURS OF SERVICE	FREQUENCY	VESSELS
1	Peak Only Weekday	Hourly	1 Diesel
2	Peak Only Weekday All-Day Weekend	Hourly	1 Diesel
3	Peak Only Weekday All-Day Weekend	Hourly	1 Electric
4	All Day Weekday All-Day Weekend	40-60 minutes	1 Electric
5	All Day Weekday All-Day Weekend	30 minutes	2 Electric

Preliminary Operating Cost Comparison

#	DAYS/HOURS OF SERVICE	FREQUENCY	VESSELS	ANNUAL O&M COST (\$2022)	COST PER OPERATING HOUR
3	Peak Only Weekday All-Day Weekend	Hourly	1 Electric	\$2.6M	\$1,155
4	All Day Weekday All-Day Weekend	40-60 minutes	1 Electric	\$3.2M	\$873
5	All Day Weekday All-Day Weekend	30 minutes	2 Electric	\$6.3M	\$873

Fare Revenue Analysis (Scenario 4, 2025)

BASE CASH FARE	ANNUAL RIDERSHIP	TOTAL REVENUE	OPERATING SHORTFALL (\$2025)	FAREBOX RECOVERY RATIO
\$5.00	213,000	\$1.1M	-\$2.3M	34%
\$4.00	225,000	\$1.0M	-\$2.4M	28%
\$3.00	238,000	\$0.8M	-\$2.6M	23%

Ferry Planning Study Guidance

- Provide all day weekday & weekend service with electric vessels
 - At least hourly frequency
 - Increase frequency with development and occupancy
- Refine O&M costs and identify subsidy of ~\$2.5M per year
- Define roles and responsibilities for stakeholder parties
- Develop a business plan for TI ferry service



Image by TICD

Interim Ferry Service

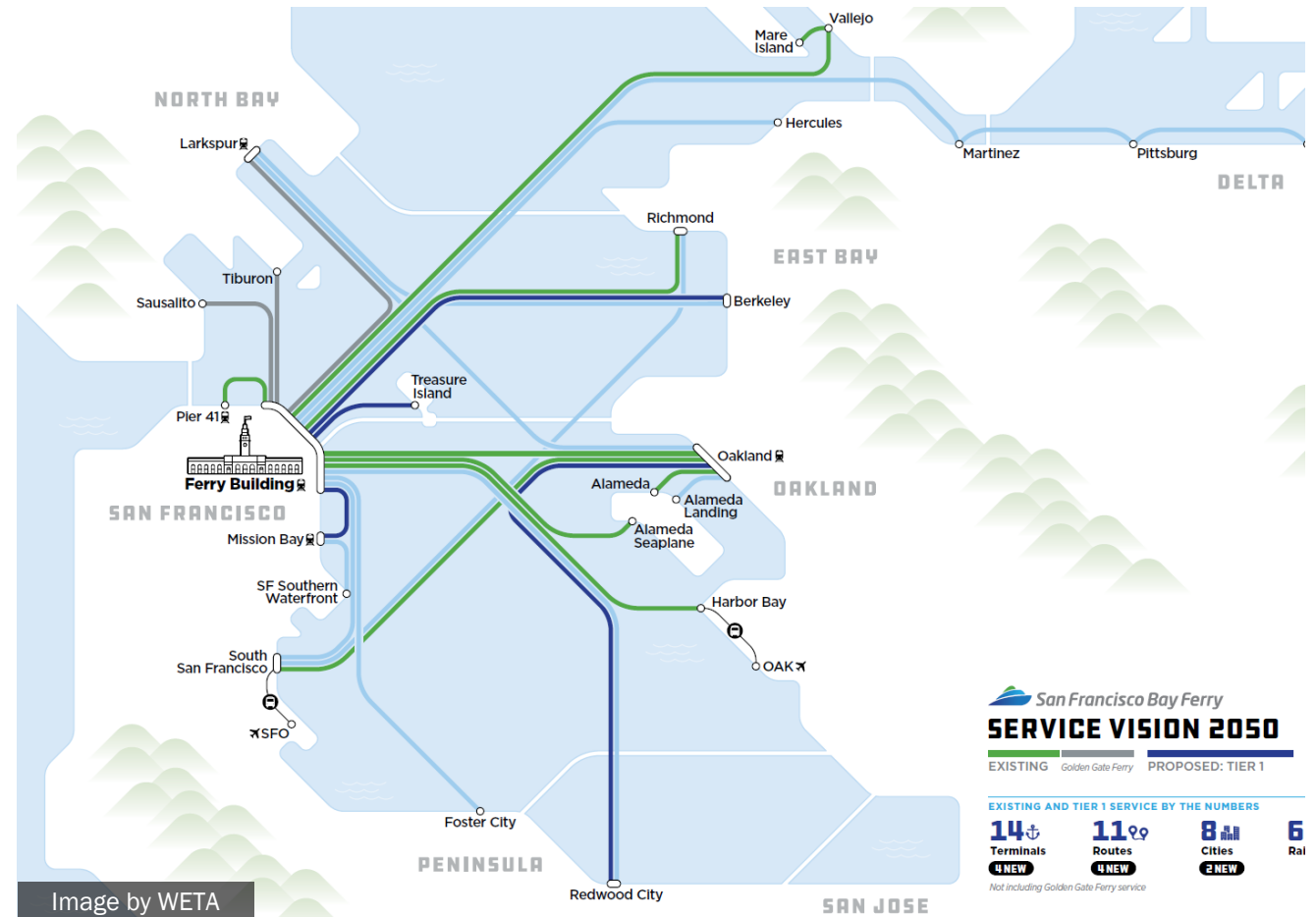
- TICD initiated ferry service in March 2022
- Weekdays 7:30am to 8:20pm and 9:30am to 8:50pm on weekends
 - Frequency varies, from 35 min to high of 120
- One-way fare is \$5.00
 - Monthly pass available for \$150
- High ridership for special events e.g. TreasureFest



Photo by Brian-Kitts-Visuals_briankittsvisuals-com

WETA's 2050 Service Vision

- Adopted by WETA's board in May 2024
- Vision for regional ferry system and criteria for expansion
- Treasure Island and Mission Bay service proposed in Tier 1



Electrification

- WETA's Rapid Electric Emission-Free Ferry program - \$136M secured
- Ferry routes of 3 nautical miles or less must be zero emission by 2026
 - SF Ferry Building to Treasure Island
 - SF Ferry Building to Mission Bay
- Proposals for 149-passenger electric vessel construction under review by WETA
- TI charging infrastructure design underway
 - Requires full funding

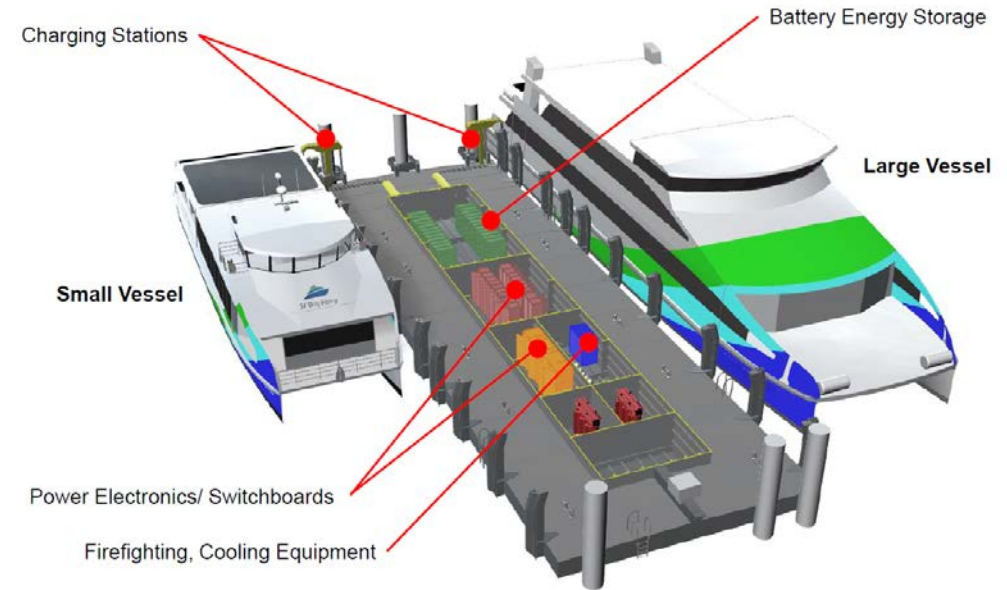


Image by WETA

Ferry Service Business Plan

Business Plan expected to be complete next summer:

- Updated development schedule
- Updated ridership projections
- Service plan
- Operations and Maintenance costs including capital maintenance
- Fare policy and fare structures
- Funding strategy / subsidy needed
- Roles and responsibilities



Image by TICD

Thank you.

sfcta.org/timma.org

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