Los Angeles County
Metropolitan Transportation
Authority
One Gateway Plaza
3rd Floor Board Room
Los Angeles, CA

File #: 2025-0921, **File Type:** Motion / Motion Response **Agenda Number:** 18.

WITHDRAWN~~EXECUTIVE MANAGEMENT COMMITTEE~~
OPERATIONS, SAFETY, AND CUSTOMER EXPERIENCE COMMITTEE
NOVEMBER 20, 2025

SUBJECT: FEASIBILITY STUDY OF WATER TAXI SERVICE BETWEEN SAN PEDRO AND LONG BEACH

ACTION: RECEIVE AND FILE

RECOMMENDATION

RECEIVE AND FILE a feasibility study of water taxi service between San Pedro and Long Beach (Attachment A).

ISSUE

At its May 2025 meeting, the Board approved Motion 9 by Directors Hahn, Butts, Dutra and Dupont-Walker directing the Chief Executive Officer (CEO) to explore the feasibility of establishing a water taxi service between San Pedro and Long Beach for the 2028 Summer Olympic and Paralympic Games (Attachment B). This report provides an overview of the study and a discussion of the results.

BACKGROUND

Water taxis and passenger-only ferries are used in many parts of the world and in the United States for marine transportation. Typically, the term, “passenger-only ferries” refers to passenger services (no vehicle transport) on fixed routes and schedules (also referred to as “water buses”) while “water taxis” operate on flexible routes and schedules based on demand. For the purposes of this report and for maintaining consistency with the language of the Board motion, the two terms are used interchangeably since a service plan is yet to be established.

In the United States, water taxis and passenger-only ferries are found in coastal and inland waterways in cities like New York, Seattle, San Francisco Bay Area and Baltimore. Services are provided by private operators that charge fares and fees, by public agencies, or some combination of both private and public entities. Six California transit agencies in San Francisco, Oakland, Long Beach, Stockton and Eureka operate ferry services. Among the top ten public transit providers in the U.S., King County Metro in Seattle and MBTA in Boston operate ferries. In Southern California similar services exist currently, including charter services to Catalina Island and seasonal services provided by Long Beach Transit.

The San Pedro Bay is home to a number of existing activities including two major cargo handling seaports, major cruise terminals and facilities, oil well islands, and private marinas and watercraft. Additionally, Long Beach Transit (LBT) currently operates a water taxi service between Shoreline Village, the Queen Mary and Belmont Shore every year between April and September.

Given the number of activities in the San Pedro Bay and the existing water taxi service operated by LBT, the study team conducted stakeholder meetings with the Port of Los Angeles and the Port of Long Beach, the City of Long Beach, labor union representatives, and private operators currently providing services for recreational and tourism activities. The Metro team also partnered with Long Beach Transit throughout this study. See Appendix C for additional details.

DISCUSSION

Study Design

Through stakeholder and operator interviews, desktop reviews of existing and planned infrastructure and services in the Long Beach and San Pedro areas, and based on best known information about vessel availability, the project team identified existing conditions in the harbor and developed scenarios for services that could be operated during the 2028 Games. Factors included the best-known but evolving information on:

- Locations for Games events and spectator viewing areas, activation areas, hospitality houses
- Existing travel options between San Pedro and Long Beach
- Connecting and multi-modal land-side transportation services (availability of buses, shuttles, rail services, bike share facilities, active transportation networks, and parking)
- Potential landing site locations in San Pedro and in Long Beach that provide existing vessel landing infrastructure not likely to require extensive improvements
- Harbor conditions, including vessel traffic, slow zones, speed conditions inside and outside of the breakwater, and possible congestion points accessing the protected harbor at Angel's Gate and Queen's Gate
- Other harbor-related activities and existing ferry operations in the vicinity of the two landing locations.

Information collected from stakeholders was used to scope the study, identify plausible landing locations and sailing routes, understand developments on security perimeters and operating constraints, and validate assumptions on vessel types and availability, crewing needs, and unit costs needed to estimate operating and capital improvement costs.

Discussions yielded some themes, opportunities, and constraints. Notably:

- Special event services like the water taxi are expected to function as "transport-tainment" -- drawing specific segments of the travel market who will use water taxis not only for transportation, but to experience hospitality services onboard vessels, and for the novelty of enjoying the Los Angeles and Long Beach oceanside and harbor amenities. The experience of the water taxi trip may drive special event ridership more than other factors, such as travel

time competitiveness.
- Local fleets are primarily committed to the peak summer season and especially during the 2028 Games, therefore, their availability will be limited. As a result, suitable vessels will need to be sourced beyond soley relying on Southern California operators.
- Availability of zero emission water taxi service is largely determined by boat procurement, design and construction schedules. Two vessels of hybrid electric technology are on order by a private operator in the San Pedro Bay and are scheduled for delivery in 2026 and 2027.
- Some investment to install shoreside electric charging facilities - by vessel operators or local or state jurisdictions or some combination - is planned to support compliance with California Air Resources Board's (CARB) updated Commercial Harbor Craft regulation, which requires transition to zero-emission or reduced emissions vessel operations. Specific compliance timelines and requirements vary by vessel and route types. The 2028 Games may serve as a catalyst for securing public funding and grants for this new infrastructure and thus expediting its development. Deployment of electric vessels for the 2028 Games requires completion of shoreside charging equipment and infrastructure projects, with timelines currently unknown. Other dockside infrastructure improvements likely will be needed for 2028 water taxi services, depending on landing site and dock fit-up needs for vessel configurations yet unknown.
- Aside from broad outlines, the details and specifics regarding Games events have yet to be defined, such as sailing competition course locations, spectator viewing areas, slow- and/or no -wake zones, the extent and operations of security perimeters, and locations of blast zones. These details are subject to change and may potentially impede or limit water taxi operations along its sailing route and at landing sites, including on any given day of an event.
- The specialized service during the two weeks of the 2028 Games presents an opportunity for stakeholder partnership to promote tourism and local economic development opportunities, feature Southern California's natural and marine resources, and showcase the harbor as a gateway for global tourism.

The study develops a feasible service plan (components of which include potential routes, sailing times and schedules, vessel types and propulsion technology, infrastructure needs, and regulatory requirements), and identifies capital and operating cost estimates. In addition, the study addresses some potential funding sources and partnership opportunities between public and private sectors to support the development and operation of a water taxi service.

Findings

Landing Sites and Infrastructure Needs

Nine preliminary landing site options in San Pedro and three options in Long Beach were identified and based on screening factors, reduced to the West Harbor in San Pedro and Rainbow Harbor in Long Beach. West Harbor was selected as a suitable landing site in San Pedro due to its location closer to the mouth of the west channel, which does not require vessels to travel long distances into the inner channel under operating speed limits. The West Harbor is also the location for a San Pedro and POLA redevelopment project that includes a promenade, pop-up park, dog park, courtesy dock, proposed amphitheater, restaurants, and waterside attractions, as well as proximity to hotels. Electric vessel charging infrastructure installation is planned for completion by Harbor Breeze in coordination with POLA and POLB. Additionally, the site has been identified as conducive for

extending enhanced local transit, walking and biking connectivity, and is planned for the development of 2,000 parking spaces.

Multiple landing options were identified in Long Beach including Alamitos Bay, Queen Mary, and Rainbow Harbor (including multiple dock options) near Downtown Long Beach. Long Beach is scheduled to host several waterside Games events. including sailing, canoeing, open water swimming, volleyball, and rowing. Many of the water event locations are proximal to existing AquaBus and AquaLink services; thus Metro's study assumes Rainbow Harbor as a likely candidate for a dedicated service to and from San Pedro. Rainbow Harbor includes landside attractions such as the Aquarium of the Pacific, Shoreline Village with cultural, dining, and entertainment options, Pike Outlet stores, and Marina Green Park, which is used for music festivals. The Rainbow Marina includes 87 slips serving recreational boaters and commercial operators, and the harbor area includes twelve 150-foot docks serving harbor cruises, private charter boats, rental boats, and watercraft rentals.

Vessel Types, Trip Times, Estimated Capital and Operating Costs

Through a desktop review and stakeholder discussions of existing and planned local fleets, three representative vessel types were identified for analysis, based on technology availability (i.e., diesel, electric and/or hybrid propulsion) by the 2028 Games, and their range of potential characteristics including cruising speed and passenger capacity. The study team then developed potential service profiles based on speed, travel times, and loading/charging parameters. This information was used to estimate the number of passengers that could be served over an operating day. Results show that depending on the vessel and cruising speeds, crossing times between San Pedro and Long Beach range between 34 and 59 minutes, not including time for passenger loading/unloading or charging/fueling, or any special protocols for vessel or passenger security screening. With estimated loading/unloading dwell times, trip frequency is estimated every 35 minutes, assuming a fleet of three faster vessels, and up to every 80 minutes, assuming a fleet of two larger capacity electric vessels.

Capital (shoreside) improvement costs were estimated based on a field review of existing dock facilities in San Pedro and Long Beach and potential minimum improvements needed to support short-term water taxi service. Operating costs were estimated based on crew requirements for the vessel sizes, estimated labor rates, and estimated energy requirements for each vessel type, using fuel and electricity rates local to Southern California. The table below summarizes assumptions for the three fleet types operating in four service scenarios, potential service levels and capacity, and estimated costs, including cost per passenger (assuming full capacity) to inform an appropriate ticket or fare price (subsidy notwithstanding). These estimates are based on service from the start of the Olympic Games through the end of the Paralympic Games (approximately 47 days including the hiatus between the Olympic and Paralympic Games). This duration does not include start-up, testing, or ramp-down service leading into or tapering down from the Games periods.

Fleet Configuration	SCENARIO 1 350 350	SCENARIO 2A 150 150	SCENARIO 2B 150 150 150	SCENARIO 3 75 75
Vessel Description	(2) 350-passenger hybrid-electric vessels	(2) 150-passenger diesel vessels	(3) 150-passenger diesel vessels	(2) 75-passenger diesel vessels
Trip Crossing Time (one-way)	59 minutes	34 minutes	34 minutes	39 minutes
Assumed Dwell time (one-way)	20 minutes	15 minutes	15 minutes	10 minutes
Scheduled Daily Round Trips	8	12	18	12
Scheduled Time between Departures	80 minutes	50 minutes	35 minutes	50 minutes
Potential Daily Passenger Capacity	5,600	3,600	5,400	1,800
Total Operating Cost (47 service days) [2]	**$1,278,000**	**$995,000**	**$1,445,000**	**$662,000**
Operating Costs per Round Trip	$3,398	$1,764	$1,780	$1,174
Operating Cost per Passenger Seat [3]	$3.88	$4.70	$4.55	$6.26
Estimated Capital Costs [4]	**$114,000**	**$113,000**	**$113,000**	**$113,000**
Total Estimated Costs (47 service days)	**$1,344,000**	**$1,084,000**	**$1,535,000**	**$751,000**

Assumes all-electric propulsion with shoreside charging
[1] Costs in 2028 dollars, based on feasibility-level (<1%) design and analysis
[2] The 47-day service period is the time between the start of the Olympic Games and the end of the Paralympic Games
[3] Cost per passenger capacity is calculated using total passenger carrying capacity over the 47 days of service
[4] Assumed minimal needs with service contracted to an existing operator

As mentioned previously, a likely challenge will be the supply of local vessels to serve both regularly planned uses (AquaBus and AquaLink services, whale watching, cruises, etc.) and added Games-related demand for water taxi service. Further development of this service is likely to require exploration of new vessel constructions by 2028 to supplement existing planned services, and/or the possibility of using the existing or planned local fleet for the water taxi service in lieu of their existing services.

Another option may be acquiring use of vessels from other parts of the state or country, though this would likely only be feasible for short-term temporary operations and not for long-term service. Discussions with stakeholders and existing operators identified potential pilot service use of recently ordered low/no-emissions technology vessels. For example, Harbor Breeze anticipates the delivery of two demonstration hybrid-electric vessels (in construction now) as part of the POLA project, Los Angeles Marine Emission Reduction (LA MER), funded through CARB. Delivery is anticipated in 2026 and 2027 for pilot testing and initial service demonstration.

Note that scenarios were developed to understand feasible capacity and estimated costs; however, the demand for such service is not likely to be known until further Games-related activities are defined and once Games ticket sales begin.

Permitting and Regulatory Constraints

Development Permits: Development permits required will depend on whether infrastructure improvements will be minimal or extensive, thus requiring different easements, approvals, and environmental permits from a variety of organizations and agencies. Determining which permits are required depends on the type of improvements needed (i.e., whether ground disturbance would be required), jurisdictional control of the land, waterways, properties involved, and construction activities associated with potential landing site improvements. Existing jurisdictions in the study area include the City of Los Angeles, City of Long Beach, Port of Los Angeles, California Coastal Commission,

California Department of Fish and Wildlife, California Department of Transportation, Regional Water Quality Control Board, South Coast Air Quality Management District, State Water Resources Control Board, United States Fish and Wildlife Service, National Marine Fisheries Service, United States Coast Guard, California Public Utilities Commission, South Coast Air Quality Management District, and United States Customs and Border Protection.

For purposes of evaluating services in time for the 2028 Games, the study assumes minimal landside improvements needed; such improvements may include dock improvements and minor landside improvements with no ground disturbances. In this case, permitting is expected to take around two years with the California Coastal Commission (Coastal Development Permit) and about a month with the Port of Los Angeles (Hot Work Permit).

Long-term service may require more extensive and permanent facilities, however and are estimated to require at minimum three years for permitting, as well as two years for environmental documentation per California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA) depending on the extensiveness of facilities development and the level of document. The environmental documentation and permitting activities together would total approximately three to five years to complete for long-term service.

Operating Permits: The operator of the water taxi service whether it be publicly or privately provided, and whether it be for short-term or long-term operation, will be required to comply with the California Public Utilities Commission (CPUC) and the United States Coast Guard (USCG) which requires crew training and each vessel's Certificate of Inspection (COI), specifying maximum number of passengers, qualifications of crew members, and limits on areas of operations. USCG-approved Facility Security Plans also will be required for each landing site depending on vessel size. The operator would also be responsible for meeting maintenance requirements based on USCG regulations and developing and implementing long-term capital improvement plans for both vessels and facilities.

Below is a list of potential permits and approvals needed for short-term ferry service with limited landing site improvements, assuming that no work would be conducted within, or result in any impacts on, any jurisdictional waterways.

Anticipated Permits and Approvals for Short-Term Ferry Service

Agency	Permit or Approval Type	Project Activity	Permit Timeline
Shoreside Improvements			
California Coastal Commission (California Coastal Act)	Coastal Development Permit	Work within the coastal zone, which includes the Port of Los Angeles and Rainbow Harbor	6-24 months
Port of Los Angeles	Hot Work Permit	Welding, cutting, burning, grinding, drilling and other fire and spark-producing operations	<1 month
Operations			
California Public Utilities Commission	Certificate of Public Convenience and Necessity	Required to provide public services	1-3 months
	Transportation Vessel Common Carrier Permit or Certificate	Required for all ferries that transport people between two points	1-3 months
United States Coast Guard	Certificate of Inspection	Ferry services with vessels carrying more than six paying passengers	3+ months
	Merchant Mariner Credential	Required by operators to operate new/additional vessels	90 days or less
City of Long Beach	Slip Permit	Docking in Rainbow Harbor	<1 month

Note that implementation of short-term improvements for the 2028 Olympic and Paralympic Games would not be expected to require extensive environmental documentation because they would be temporary and short term, and the proposed construction activities are assumed to be minor.

Considerations for Implementation by 2028 and Responsible Parties

Given the resources needed to stand up a new water taxi service with Metro-owned facilities and operations, including capital investments (service and back-up vessels, new water vessel maintenance facilities, landing site infrastructure, and moorage) and of establishing operations (operator permits, crew staffing, recruitment and training, development of maintenance capabilities, and establishing maritime safety and security programs, etc.), it would not be feasible for Metro to operate new service on waterways by 2028.

While Metro has the statutory authority to operate transit service on waterways, development of the service and infrastructure in the San Pedro Bay and harbor would likely require agreements with POLA and POLB, approval from the U.S. Army Corps of Engineers under Section 10 of the Rivers & Harbors Act for work affecting waterways, and compliance with the California Air Resources Board (CARB) Commercial Harbor Craft (CHC) Regulation (setting vessel requirements in compliance with emissions standards). Metro would also need to follow U.S. Coast Guard (USCG) regulations and the International Regulations for Prevention of Collisions at Sea, along with registering the vessel(s) with the state and ensuring its operator has a valid California Boater Card.

Permitting authority for landside development, and dock usage agreements reside with local jurisdictions that would be in a more effective position to review, permit, and potentially support the implementation and the maintenance of such improvements. Similarly, for vessel procurement and operations, existing operators such as private charter operators and/or Long Beach Transit likely would be better positioned to procure vessels and capture economies of scale and scope in expanding their existing services and operations for special events (rather than Metro establishing new services in marine environments where we have neither existing operations nor expertise).

The number of experienced and established public and private operators already serving the San Pedro Bay and harbors suggests opportunities for other service delivery models such as privately owned commercial operators to provide this service directly to the public, or through a contractual arrangement between a public agency (or agencies) and private operator(s); opportunities and constraints for each of these delivery models and for public agency delivery are described in the table below. Metro could participate in a contracted service by working with an interested entity or contractor to examine the potential integration of fare media and TAP card interoperability, opportunities for branding and co-marketing, and/or assist with accessing public funding that would need to be identified for this service. The expectation would be that the contracted operator would obtain or already have all certifications and permits required to operate the service and own and maintain assets.

MODEL	OPPORTUNITIES	CHALLENGES	METRO DELIVERY
Private Service provided by a private operator, without agency involvement.	• Potential fast start-up with use of existing crew and assets • Varying options for agency support/ collaboration	• Typically, higher fares due to the need to remain profitable • Service schedules typically developed to maximize profitability	• N/A
Public/Private Contracting Typically involves the governing agency contracting for provision of transportation service and providing partial or total funding. Varying options for ownership and maintenance of assets and landing sites.	• Access to federal and state grant funding • Opportunities for faster service start-up by using staff/assets of an established operator, partnership on service marketing for launch and ridership growth • Greater agency control over fare levels and service schedules • Opportunity for integration of fare payment media (e.g., TAP card)	• Less agency control over service quality • Ongoing subsidy requirements • Some agency resources required for contract management	• Varying options for Metro delivery as a contracting agency, supporting agency, or in partnership with others
Direct Agency Delivery The agency manages and operates service, while directly owning or leasing assets and landing sites.	• Access to federal and state grant funding • Greatest agency control over service levels and standards • Potential coordination with other modes and integration of fare payment media (e.g., TAP card)	• Requires the greatest commitment of infrastructure and resources by the agency related to operation and capital programming for a new mode • Potential long start-up time to plan, permit, and fund capital improvements	• Infeasible

Funding Opportunities

For short-term service operated during the 2028 Games, it is likely that local funding would be required for the entirety or a significant portion of costs. Depending on how the service is delivered,

potential partnerships may provide options for shared or reduced costs. Potential opportunities include grants related to the implementation of no/low emissions vessel technologies such as the Clean Off-Road Equipment Voucher Incentive Project (up to $1M), or 2028 Games Mobility Funding.

Many of the grant funding options typically available to passenger ferry services are unlikely to be applicable to short-term event service unless it is presented as part of a planned ongoing service. Additionally, the timelines associated with these grants, including development of project information to support grant application materials, completion of required permitting/regulatory processes, execution of grant agreements, and construction of improvements, may make implementation of grant-funded projects ahead of the 2028 Games infeasible.

For long-term service extending beyond the 2028 Games, a portfolio of sustainable funding sources will be needed. The following sections discuss funding opportunities for services operated through direct agency delivery or a public/private contracting arrangement in which an agency owns some or all of the vessel or landing site assets.

Capital costs for water taxi service include vessel procurement and landing site improvements. Multiple state, federal, and local sources can be used by public agencies to fund capital projects, including tax levies, state and local budget appropriations, and grants from State and Federal agencies such as the California State Transportation Agency (CalSTA) and the Federal Transit Administration (FTA). Eligibility for specific funding opportunities may depend on service characteristics or vessel technologies used. Also note that should a water taxi service be submitted for grant funding from some of these programs, it would compete with other Metro projects, including major pillar projects and other Games-related candidates.

Example federal grants available to a potential agency-provided San Pedro - Long Beach water taxi include:

- Federal Transit Administration (FTA) <https://www.transit.dot.gov/> Passenger Ferry Grant Program: Provides competitive, capital funding for ferry systems in urban areas, including vessels, terminals, and infrastructure.
- Federal Highway Administration (FHWA) <https://highways.dot.gov/>:Surface Transportation Block Grant and National Highway Performance Programs: Provides funding to states for transportation projects, including ferry projects.
- FHWA PROTECT Program <https://www.transportation.gov/rural/grant-toolkit/promoting-resilient-operations-transformative-efficient-and-cost-saving>: Funding for projects that support resiliency for events like sea level rise and other natural disasters.
- Department of Transportation (DOT) Better Utilizing Investments to Leverage Development (BUILD) Grants <https://www.transportation.gov/BUILDgrants>: A competitive, multi-modal grant program that can be used for ferry vessel and terminal projects.

Additional state and federal funding opportunities may be available for projects that meet specific goals, such as emissions reduction or the use of innovative technologies. Eligibility, scoring, and funding levels for federal grants may change year to year and can be set based on the priorities of the administration in place. Example grant funding opportunities include:

- FTA Electric or Low-Emitting Ferry Program: Supports capital projects for low- or zero-

emission ferries and shoreside infrastructure.
- Carl Moyer Memorial Air Quality Standards Attainment Program: Provides funding for repower or replacement of vessels operating in the South Coast region. Also includes limited options for shore power projects.

Ongoing water taxi operating costs, including those for staff and crew wages, fuel, and maintenance activities for terminals and vessels, require sustainable and continued funding sources. Revenue from fares and concessions are typically insufficient to cover all operating costs. For systems governed through public-private contracts or direct agency delivery, multiple state, federal, and local sources may be available and can be used to fund operating costs, including tax districts and levies and capital costs through grants from state and federal agencies.

The FHWA Ferry Boat Program is an example of a funding source that has been used by water taxi operators in California to cover operating costs, as well as costs for construction of vessels and terminal facilities. Ten operators in California received a combined $7.3 million in Fery Boat Program formula funding in fiscal year 2025.

EQUITY PLATFORM

An equity analysis has not been performed as part of this study. Should this service be further evaluated, an equity analysis would be conducted.

VEHICLE MILES TRAVELED OUTCOME

VMT and VMT per capita in Los Angeles County are lower than national averages, the lowest in the SCAG region, and on the lower end of VMT per capita statewide, with these declining VMT trends due in part to Metro's significant investment in rail and bus transit.* Metro's Board-adopted VMT reduction targets align with California's statewide climate goals, including achieving carbon neutrality by 2045. To ensure continued progress, all Board items are assessed for their potential impact on VMT.

As part of these ongoing efforts, this item is expected to contribute to further reductions in VMT. This item supports Metro's systemwide strategy to reduce VMT through planning activities that will further encourage transit ridership, ridesharing, and active transportation, or in this case, explore the possibility of water-based transportation around San Pedro and Long Beach connecting multiple existing transit, walking, and biking infrastructure. Metro's Board-adopted VMT reduction targets were designed to build on the success of existing investments, and this item aligns with those objectives.

*Based on population estimates from the United States Census and VMT estimates from Caltrans' Highway Performance Monitoring System (HPMS) data between 2001-2019.

IMPLEMENTATION OF STRATEGIC PLAN GOALS

The study supports the following strategic plan goals:

- Goal #1: Provide high-quality mobility options that enable people to spend less time traveling;

- Goal #2: Deliver outstanding trip experiences for all users of the transportation system; and
- Goal #4: Transform LA County through regional collaboration and national leadership.

NEXT STEPS

Should the Board decide to continue to explore implementation, the next step would be to develop either a request for interest or a reverse pitch to be released to the industry to gauge interest from private and public sector entities in implementing this service.

ATTACHMENTS

Attachment A - San Pedro - Long Beach Water Taxi Feasibility Study
Attachment B - Board Motion 9: Feasibility Study for Water Taxi Service between San Pedro and Long Beach
Attachment C - Stakeholder Engagement

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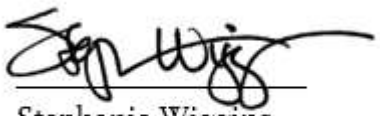

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San Pedro–Long Beach Water Taxi Feasibility Study

2028 Los Angeles Olympic and Paralympic Games Planning and Beyond

Executive Summary

Metro

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Cover image: City of Long Beach

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EXECUTIVE SUMMARY

Study Overview

The Los Angeles County Metropolitan Transportation Authority (Metro), in collaboration with Long Beach Transit (LBT) and in coordination with many property and agency stakeholders, conducted the San Pedro–Long Beach Water Taxi Feasibility Study (study) as a first step toward evaluating establishment of a ferry service between San Pedro and Long Beach for the 2028 Olympic and Paralympic Games, utilizing the active waterfront for expanded transit options. The study was directed by the Metro Board (Motion 9) at its May 14, 2025, meeting.

The study aims to evaluate the feasibility of water taxi service through a review of opportunities and constraints for new water taxi service during the 2028 Games, assessment of service options to supplement existing transportation modes, and identification of the infrastructure needs and potential next steps toward establishing this new service. In addition to 2028 Games service, the study identifies considerations for further assessment and planning of continued long-term ferry service between these shoreline communities.

Summary of Key Findings

A passenger-only ferry (water taxi) route between San Pedro and Long Beach provides an opportunity to offer an additional, non-roadway transportation option to visitors, staff, and volunteers during the 2028 Games. Establishing a water taxi service would support access to event venues, fan zones, and hospitality houses. The effort would support the Games' goal of a transit-first Olympics and Pralympics, and work to mitigate concerns over roadway congestion and traffic flows during the games. The following sections provide an overview of the opportunities and potential constraints for implementation of the special event (2028 Games) water taxi service.

Potential Service Levels and Costs

Harbor conditions and available 2028 Games plans were reviewed to support selection of representative vessel types and landing sites to be used to build a potential water taxi route. The route was analyzed to provide planning-level information regarding the range of estimated passenger capacity and service levels, along with associated operating and capital costs, to aid in planning and guide future decision-making.

The resulting range of service levels and estimated costs were identified through scenario development. These scenarios focused on one route with one landing site in each geographic location and with different options for vessel speeds and passenger capacity. The results of this

scenario assessment identified ranges of crossing times from 34 minutes to 59 minutes with differing levels of service and therefore total passengers moved, ranging from 1,800 to 5,600.

A summary of these findings is presented below in Table 1, followed by discussion of key findings related to landings sites, vessel types, service levels and cost. Costs are representative of the projected 47-day service period during 2028 Games events (from the start of the Olympic Games to the end of the Paralympic Games and including the period between.

Table 1: Summary of Service Scenario Findings

Long Beach Landing Site	San Pedro Landing Site	Crossing Time	Number of Daily Round Trips	Total Daily Round Trip Capacity	Total Estimated Costs (projected 2028 dollars)
Rainbow Bay Dock 9	West Harbor	34 – 59 minutes	8-16	1,800 – 5,600	$913,000 - $1,448,000

Landing Sites

Assumed landing site locations were selected based on 2028 Games planning information and stakeholder input. The selected sites, **West Harbor in San Pedro** and **Rainbow Harbor Dock 9 in Long Beach**, each provide existing dock infrastructure and high potential compatibility with water taxi service. In addition, both sites provide access to nearby 2028 Games event venues, pedestrian and bike pathways, and transit connections.

Vessels

For a route connecting these two landing sites, three service scenarios were developed, assuming use of vessels with cruising speeds ranging from **10 to 28 knots** (11 to 32 miles per hour) and passenger capacities between **75 to 350 passengers**. These three vessel types are representative of potential vessels used to support the service, rather than based on specific vessels as 2028 availability is currently unknown.

Service Metrics

A water taxi crossing between West Harbor and Rainbow Harbor Dock 9 would range from **34 to 59 minutes** depending on the vessel speed. Of that total trip time, 18 minutes of the route are within a currently regulated slow/no-wake zone, meaning that the time cannot be any faster regardless of vessel speed. This vessel trip time is longer than those of current on-land alternatives, including LADOT's Commuter Express route 142 which provides a half-hourly trip between the two waterfronts in 26 minutes, and driving via the Seaside Freeway with typical trips of 18 to 30 minutes during congested traffic conditions. However, while traffic congestion both on-land and over-water during the 2028 Games cannot be accurately quantified at this time, vehicle traffic is anticipated to be constrained by both increased roadway demand and constraints from 2028 Games operations and security zones, providing additional opportunity for a non-roadway water taxi alternative.

Depending on the size and speed of the vessels deployed, the service provides the opportunity to carry **1,800 to up to 5,600 people daily** with between **8 and 16 daily round trips**. These scenarios assume that two to three vessels would be in service over an operating day limited to 12 total hours of crew labor per vessel over a period of 47 days during the 2028 Olympic and Paralympic Games. Estimated costs for service to cover these 47 days range from $913,000 - $1,448,000, including operating costs and capital costs, which are assumed to be limited due to the use of leased vessels and minimal uplands improvements.

Information Needed to Support Further Analysis

Through development of the study, Metro identified several currently unknown aspects of 2028 Games operations where more information is needed to inform planning for the potential water taxi route. The following list of elements directly impact the potential operation of a water taxi service between San Pedro and Long Beach for the 2028 Games. For service planning and implementation to move forward, more information and direction regarding these elements is required.

- **2028 Games Plans Security Plans**: As Games planning progresses, the confirmed perimeters of security zones and vessel security requirements could impact in-water operations and upland access to water taxi landings. In addition, any security protocols for vessel and/or passenger screening could lead to landing site space and operational requirements, with potential impacts to operating costs and service schedules.
- **2028 Games Events:** The location and timing of in-water events including sailing and open-water swimming could potentially pose operating requirements or limitations to water taxi service.
- **Vessel Availability:** Securing a fleet of existing vessels may be challenging and require longer lead times and coordination due to the short period of the event and the likelihood that local vessels may be in use during the event. Use of electric vessels would require completion of shoreside charging projects.
- **Harbor Conditions:** While conditions during the 2028 Games are currently unknown, vessel traffic from cruise, charter, and recreational vessels is anticipated to be high. Further coordination with harbor stakeholders and regulatory agencies will be needed to understand potential impacts to water taxi service as well as vessel operating requirements.

As more becomes known about 2028 Games operations and security specifics, route feasibility and service level targets can be refined. This information will support decision making regarding how service will be delivered and funded, and partnership opportunities. Of the potential delivery models identified, two models rise as opportunities: a private and public arrangement with Metro contracting service with an operator that would own and maintain all assets and operate services, or a privately provided service

Long-Term Service Considerations

Continuation of service beyond the 2028 Games will require policy decisions regarding proposed service levels, who will operate service and how it will be funded. These decisions will shape the approach used for procurement and maintenance of vessels and terminal assets, and the regulatory requirements including potential compliance with California Air Resources Board (CARB) Commercial Harbor Craft (CHC) Regulations. There are service model considerations that may shift whether its short-term or long-term service. Direct agency delivery of service will

require the highest commitment of agency resources and staff, with potential needs to expand staff, capabilities, and assets. Contracted service delivery model provides the most flexibility for an agency if a service provider can offer the fleet and staff to meet the service levels the agency requires.

INTRODUCTION

The City of Long Beach and neighborhood of San Pedro on the Los Angeles waterfront are planned to be two key locations in the city-wide stage set for the 2028 Summer Olympic and Paralympic Games (Games). The Games are expected to bring tens of thousands of athletes and spectators from across the world to the Greater Los Angeles Area for the 18 days of Summer Olympic Games and 13 days of Paralympic Games events. Together, the two cities will host over a dozen events in addition to viewing locations and hospitality hubs in and along the waters of San Pedro Bay and Los Angeles Harbor. With existing limitations on street parking and roadway capacity, a major influx of spectators, athletes, and volunteers are anticipated to strain existing traffic conditions.

Metro was tasked by the Los Angeles County Metropolitan Transportation Authority Board with exploring the feasibility of establishing a water taxi service to connect San Pedro and Long Beach in preparation for the 2028 Games. In response, Metro conducted the San Pedro–Long Beach Water Taxi Feasibility Study (study) in collaboration with Long Beach Transit (LBT) and in coordination with many property and agency stakeholders.

The study serves as a first step in evaluating the feasibility of establishing water taxi service during 2028 Games by identifying options for landing sites and vessels, profiling the potential route, and identifying current unknowns that represent potential constraints and risks that require additional coordination. Based on this preliminary planning information, potential service profiles are outlined to provide information to support next steps toward establishing this new service. In addition, the study identifies considerations for assessment and planning of continued ferry service after the 2028 Games in support of long-term enhanced connection between both communities.

Study Approach

This study serves as a first step in planning for San Pedro – Long Beach water taxi service by outlining opportunities for service as well as potential constraints. Using stakeholder input, assessment of existing conditions, and current forecast conditions for the 2028 Games, the study team developed vessel and landing site options, route profiles, service scenarios, and estimated costs to support visioning of a future water taxi service for San Pedro and Long Beach. Through assessment and coordination with stakeholders, the team was able to identify anticipated opportunities and challenges in implementation, such as the required capital and operating costs, regulatory considerations, and partnership opportunities.

Planning-level service scenarios were developed based on available information; however, numerous considerations and current unknowns were identified which could impact the findings of this study. These potential constraints and risks, identified through conditions assessment and coordination with stakeholders, are documented in this study as requiring further consideration in future phases and as 2028 Games planning is progressed.

The study approach can be simplified into the three main phases shown in Figure 1: (1) understanding of route context, (2) service scenario planning, and (3) financial assessment and implementation considerations. Key findings from each phase are highlighted in the following

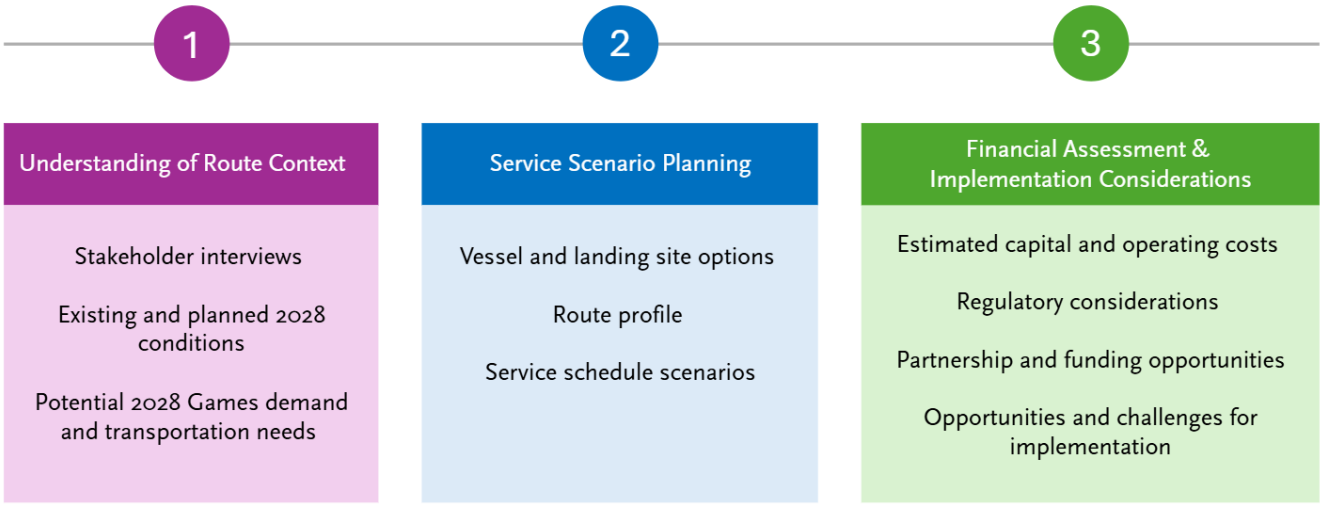


Figure 1: Study Approach Timeline

sections.

UNDERSTANDING OF ROUTE CONTEXT

The study began with an effort to thoroughly understand existing conditions and local context. Information gathering included desktop review, review of available waterfront and 2028 Games planning documents, and informational interviews with project partners and stakeholders.

Stakeholder Engagement

This study was conducted by Metro with ongoing coordination with Long Beach Transit, the operator of current Long Beach AquaBus and AquaLink water taxi services.

Informational interviews were conducted with the following entities to provide an overview of the study and request feedback on opportunities and challenges:

- Port of Long Beach
- Port of Los Angeles
- City of Long Beach
- Select San Pedro Bay vessel operators
- LA28 Organization
- Labor Union representatives

Study notice and requests for feedback were conducted with the labor unions for long-term service options. Going forward, engagement with regulators (Coastal Commission and USCG) and dock owners is recommended in any future phases.

Existing and Planned 2028 Conditions

As a first step in understanding the potential service, the study reviewed harbor operating conditions, assessed the types of vessels currently providing passenger service, and inventoried potential landing sites. Within each topic, the study also reviewed anticipated conditions and current unknowns for the 2028 Games. This information provided a basis for developing a representative route profile to illustrate the operating requirements and capabilities of potential service. Key findings are outlined below.

Harbor Operations

The route crosses through the San Pedro Harbor, which comprises numerous maritime uses including one of the world's busiest port complexes, two major cruise terminals, multiple ferry and charter vessel terminals, and several recreational marinas. Harbor infrastructure and in-water uses shape potential route operations, with restrictions such as no-wake zones and areas

of vessel traffic. Coordination with harbor stakeholders and regulatory agencies will be needed to verify specific route operating plans.

Figure 2 maps key existing harbor uses such as passenger ferry and charter operations, cruise terminals, and marinas. In addition, the port-managed areas are identified, with Port of Los Angeles area shown in yellow and Port of Long Beach shown in purple.

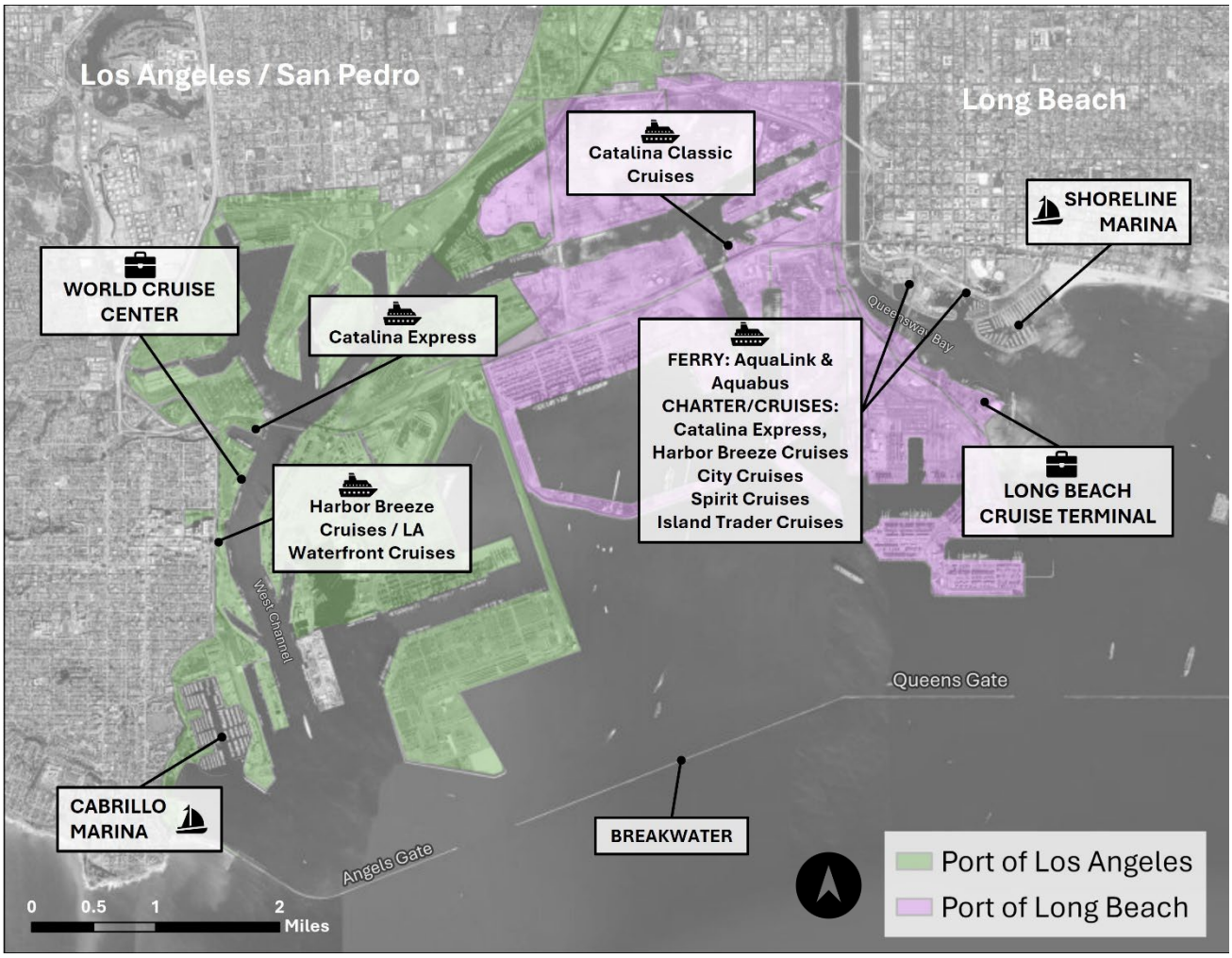


Figure 2: Existing Harbor Uses Map

2028 Games Considerations:

» **Harbor Conditions:** Conditions during the 2028 Games are currently unknown, but vessel traffic from cruise, charter, and recreational vessels for the event duration is anticipated to be high. Coordination with Harbor Stakeholders and regulatory agencies

will be required to understand potential impacts to water taxi service as well as vessel operating requirements.

» **2028 Games Plans Security Plans**: As Games planning progresses, the confirmed perimeters of security zones and vessel security requirements will impact the in-water operations and upland access to water taxi landings. Any security protocols for vessel and/or passenger screening may also require landing site space and additional operational requirements, adding potential impacts to operating costs and service schedules.

» **2028 Games Events:** The location and timing of in-water events including sailing and open-water swimming could potentially pose schedule or wake limitations to water taxi service.

Passenger Vessels

Existing passenger ferry service in the route area consists of the Long Beach Transit operated AquaBus and AquaLink services, as well as several privately-owned cruise and charter services. The currently known local vessel fleet ranges in size from 500 passengers to under 50 passengers. Figure 3 groups the number of vessels by passenger capacity by operator.

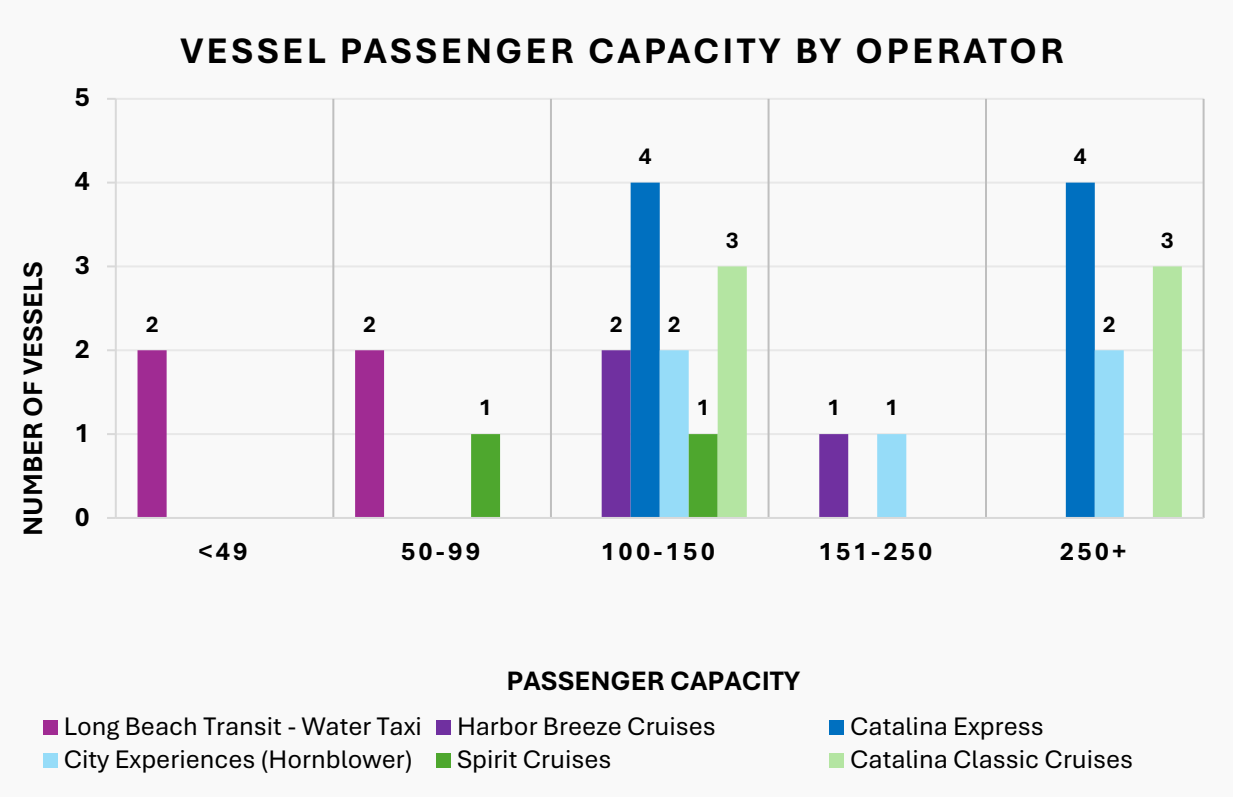


Figure 3: Overview of Ferry and Cruise Fleets in San Pedro Bay

2028 Games Considerations

» **Availability.** Stakeholders identified vessel availability as a key challenge. Securing a short-term vessel lease during the high-demand, profitable summer season may require a longer lead time or potentially require looking outside of the southern California area to find available vessels.

» **Emerging technologies.** No electric passenger vessels are currently in operation in the harbor, although two hybrid-electric vessels are in construction by Harbor Breeze Cruises, with planned delivery before 2028 and shoreside charging projects underway. Use of electric vessels will require completed installation of compatible shoreside charging equipment.

Landing Sites

With the long history of passenger vessel operations and popularity of ferry and cruise services in the area, multiple potential landing site options exist on both ends of the route that would be suitable for 2028 Games water taxi service. Many of these sites were identified through the work done in the San Pedro Waterfront Plan. Because of the number of options on both ends of the route and the range in sizes of vessels currently in service, this study assumes that short-term event service would select a landing site that would be compatible with selected vessels with minimal improvements.

Figure 4 identifies the preliminary list of potential water taxi landing locations, with publicly owned sites marked in green and privately-owned sites marked in orange.

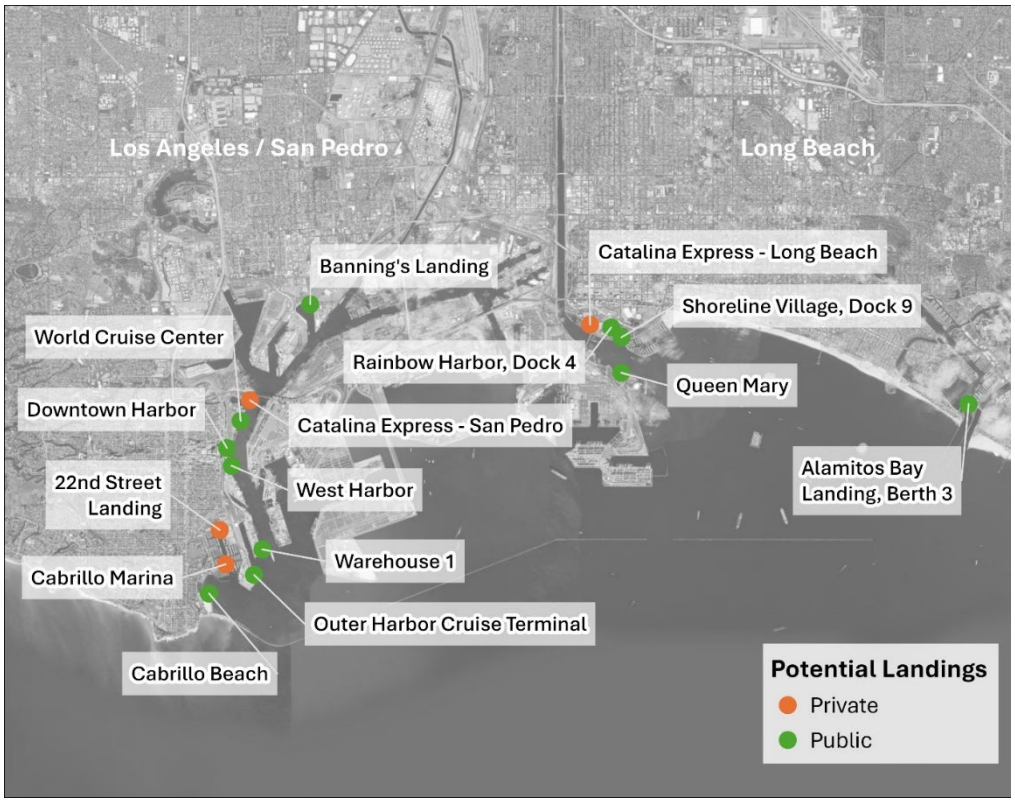


Figure 4: Potential Water Taxi Landing Sites

2028 Games Considerations

- **Landing site capacity.** Stakeholder interviews indicated that the 2028 Games is anticipated to be a period of especially high demand for cruise and charter services. Coordinating and securing landing site use may require longer than typical lead time and additional operational planning and coordination.
- **Security considerations.** Landing site compatibility should be confirmed once 2028 Games security plans are further along. Potential conflicts with security zones may impact vessel access from the water or passenger access from uplands, with associated impacts to operating costs or service schedules.

» **Energy requirements.** Use of an electric vessel will require a landing site with completed installation of shoreside charging infrastructure and coordination with local utilities to confirm energy requirements.

Transportation Alternatives

The water taxi route provides an alternative to vehicle and transit travel. LADOT's Commuter Express Route 142, shown in Figure 5, provides service every half hour between downtown San Pedro and downtown Long Beach between the 6:00 AM and 11:00 PM hours. While the scheduled trip time of 26 minutes is faster than a potential water taxi crossing, the impacts of roadway traffic and potential capacity constraints on the bus route during the 2028 Games are currently unknown.

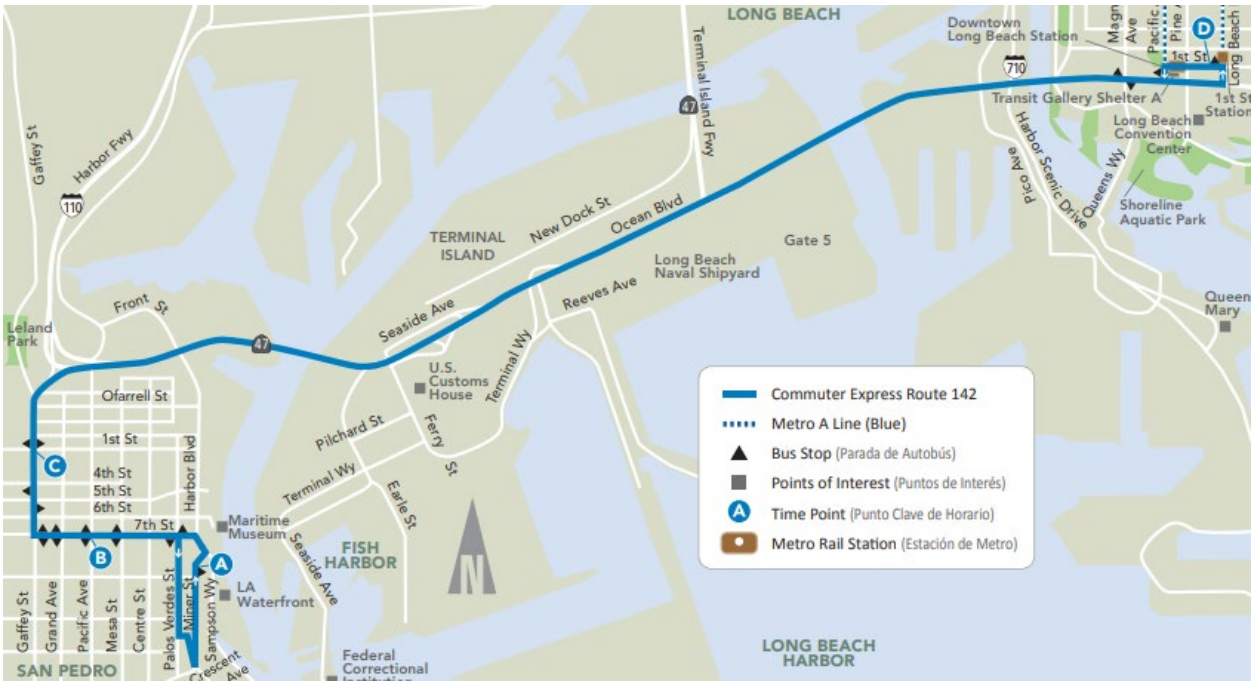


Figure 5: Commuter Express Route 142 Route Map[1]

Depending on the vessel speed, potential water taxi crossing times are 7 to 32 minutes slower than driving in high traffic conditions, and 9 to 34 minutes slower than current scheduled bus service. Table 2 provides a comparison of modal travel times.

Table 2: Travel Time Comparison

Method of Travel	Travel Time
Car	16-28 minutes *(high traffic conditions[2])*

[1] https://www.ladottransit.com/commuterexpress/ce142/
[2] Car travel time from GoogleMaps

Bus – CE Route 142	26 minutes *(scheduled service)*
Ferry	35-60 minutes *(depending on vessel speed)*

Potential 2028 Games Demand

Roughly 15,000 athletes are expected to compete in the 2028 Olympic and Paralympic Games in Los Angeles, with the potential to draw as many as 15 million visitors[3] to a region of 18 million people. As many as 150,000 temporary staff and volunteers will add to the volume of individuals traveling to and from event venues during the 18-day event.

The 2028 Games are anticipated to bring tens of thousands of visitors to the Long Beach area each day during the events. Event venues are located along the Long Beach waterfront, with a concentration of events hosted in the downtown area located near Rainbow Harbor. San Pedro will host sailing events at the southern end of the waterfront near the Cabrillo Marina.

The following sections provide an overview of known conditions during the 2028 Games to provide an understanding of potential travel demand along the San Pedro – Long Beach corridor and demonstrate how a potential water taxi service could supplement existing transit networks and provide an additional travel option for residents and visitors.

2028 Games Event Venue Locations

The potential route provides an opportunity for Games spectators, staff, and volunteers to travel between the two waterfronts, arriving at landing sites with direct pedestrian and multi-modal connections to multiple nearby event venues.

[3] LA28 Impact & Sustainability Plan. July 2025. https://la28.org/content/dam/latwentyeight/impact-and-sustainability-plan/LA28ImpactAndSustainabilityPlan2025.pdf#sustainability

Figure 6 shows the location of events, with many events sharing venues, along with existing water taxi routes.

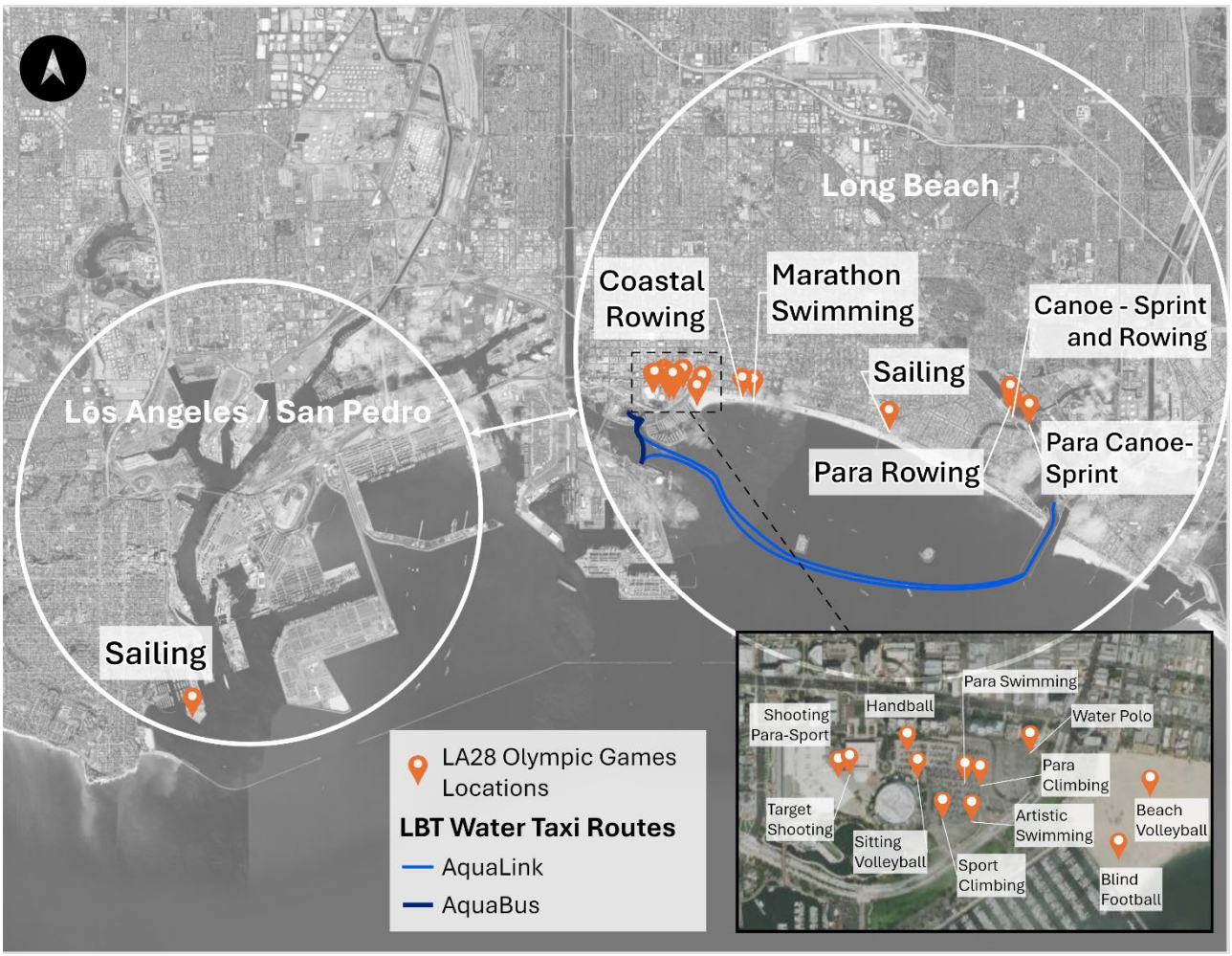


Figure 6: 2028 Olympic and Paralympic Games Locations

Event Timing

The 18 events taking place in the area will be spread throughout the three weeks of Games, shown in Figure 7. As shown in the figure, though the Games span 18 days, each single day will host at least two events, sometimes up to eight during the later days of the Games. Some events, like beach volleyball, are anticipated to draw significant crowds, notably during medal event days. This convergence of event schedules will challenge the area with accommodating a significant influx of spectators.

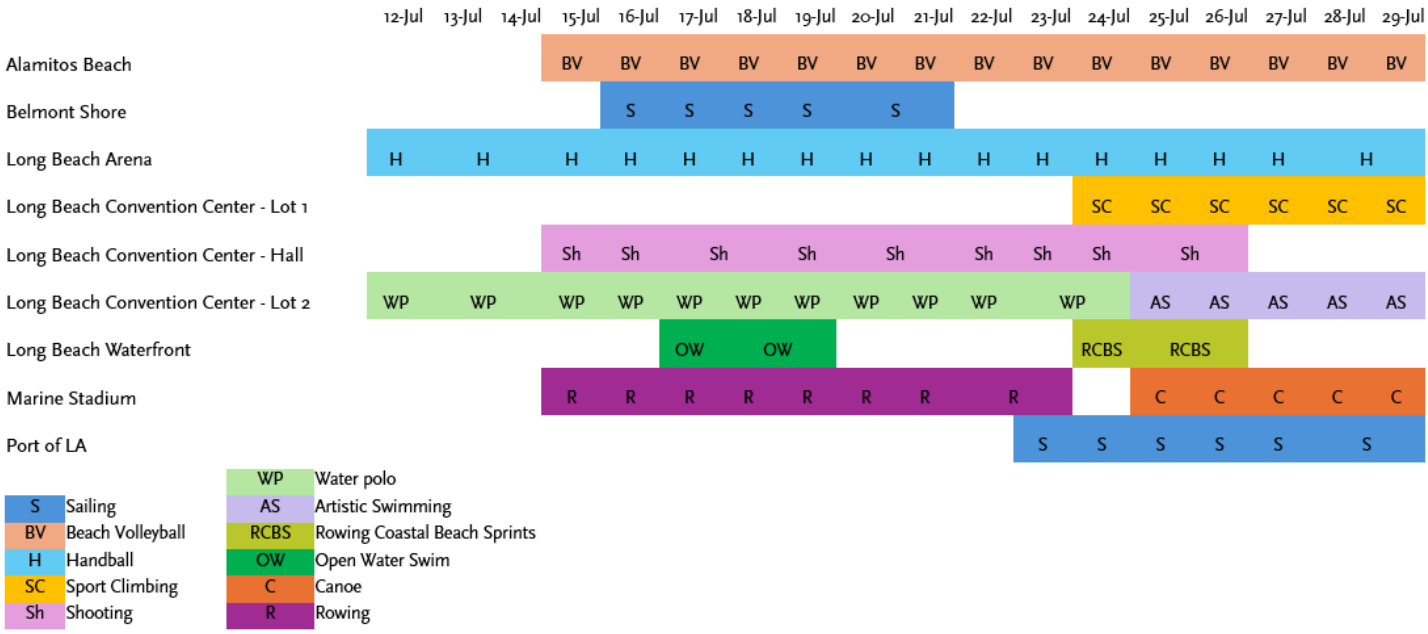


Figure 7: 2028 Olympic Games, Long Beach/San Pedro Event Schedule

Opportunities for 2028 Games Water Taxi Service

A water taxi connection between San Pedro and Long Beach provides a potential alternative to travel on congested roadways for visitors, staff, volunteers, and residents. The route connects residential neighborhoods, hotels and anticipated hospitality houses in San Pedro to the concentration of event venues along the Long Beach waterfront. Conversely, the route would also provide access from the Long Beach area to the San Pedro sailing events. Beyond Games attractions, the route would provide unique access for visitors and residents to view the harbor and port complex and visit waterfront attractions in San Pedro and Long Beach.

In the long term, a potential water taxi connection provides an opportunity to provide service as a non-roadway transportation option for commuters, as well as a connection between current and planned attractions and development on both waterfronts.

SERVICE SCENARIO PLANNING

Analysis of harbor conditions and potential 2028 Games travel demand supported development of service scenarios for analysis. These scenarios are simplified, illustrative options to support feasibility analysis, rather than recommended service plans. Once demand and potential route constraints are better understood, next steps in service planning will address appropriate frequency and passenger throughput goals.

The steps toward scenario development included selection of assumed landing sites, identification of representative vessel types, and building-out of example service schedules to understand potential capacity levels and operating costs.

Landing Site Assessment

San Pedro / Los Angeles Waterfront

Landing site opportunities in San Pedro, shown in Figure 8, were identified through review of the 2023 San Pedro Waterfront Connectivity Plan, stakeholder interviews, and in-person site assessments. Because the West Channel no-wake zone requires vessels to travel at slow speeds, potential water taxi crossing times increase drastically the further north along the waterfront they travel, making landing sites on the north end of the waterfront less suitable for service.

Figure 8: San Pedro / Los Angeles Landing Site Options

Profiled San Pedro Landing Site: West Harbor

West Harbor was selected as the assumed landing site for the San Pedro route terminus. The West Harbor area provides several potential dock options and is undergoing a major redevelopment planned for completion prior to 2028, enhancing access and building new amenities and regional attractions such as a 6,200-seat waterfront amphitheater. The site's central waterfront location provides proximity to the downtown hotel area and access to neighborhoods and transit connections, and minimizes the required distance traveled at slow speeds through the no-wake zone compared to locations further north. Feedback from stakeholders indicated that the location is likely outside of anticipated security perimeters; however, this assumption will need to be verified as Games planning progresses.

Figure 9 depicts the broad area around the West Harbor landing site. Within a half-mile walkshed of the dock is historic Downtown San Pedro, with connections to several regional bus lines and a hub of hotels and accommodations for potential visitors. Surface parking lots are available along the waterfront, with plans for additional lots to be constructed as a part of the West Harbor development. From the West Harbor Dock, it would be roughly a 2-mile walk (approximately 40 mins) to the Olympic event viewing area at Outer Harbor/Berth 46.

Figure 9: San Pedro / Los Angeles Landing Site Options

Long Beach Waterfront

The Long Beach waterfront includes several landing site options on both sides of Queensway Bay, as well as to the east near Alamitos. Potential landing sites were identified due to their existing supportive infrastructure and potential feasibility to support additional service. Three of the sites, identified by the green dots in Figure 10, are currently used to operate the Long Beach Transit Water Taxi services, AquaBus and AquaLink.

Figure 10: Long Beach Landing Site Options

Rainbow Harbor, owned and managed by the City of Long Beach, is central to waterfront attractions and provides multiple landing site options currently in use for passenger ferry service. Though the docks shown in Figure 11 are in use for passenger and charter cruise operations, they present potential opportunities for Olympics usage, depending mainly on the vessel selected and its compatibility with the varying dock configurations.

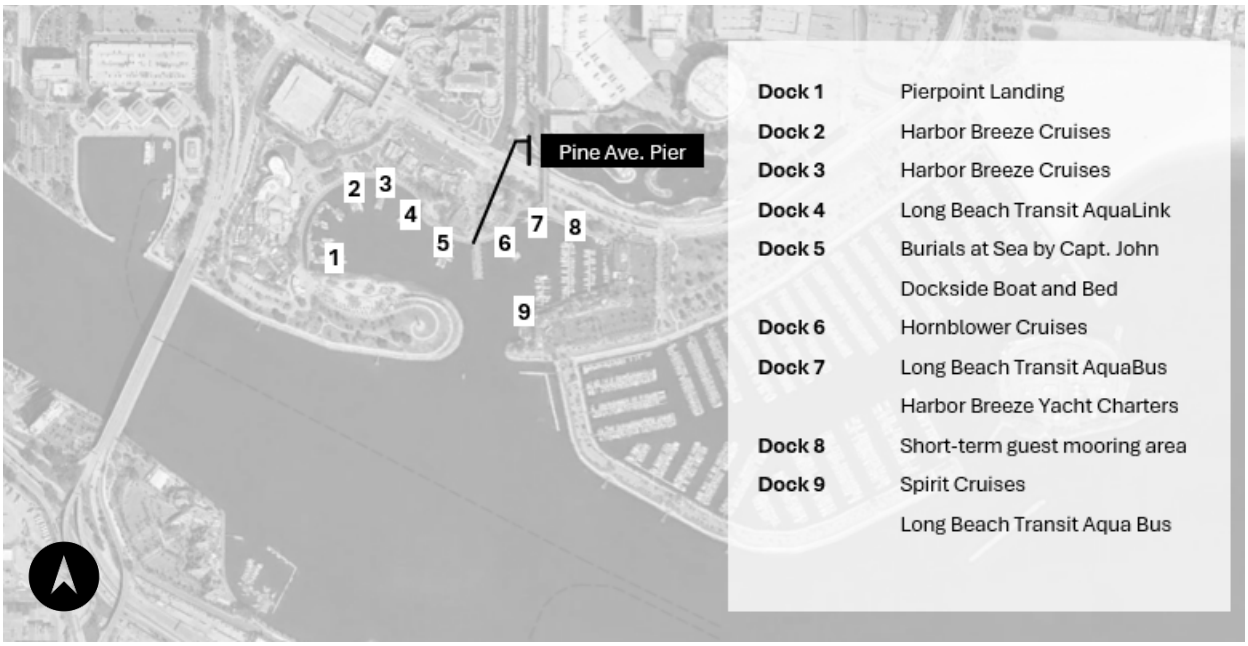


Figure 11: Rainbow Harbor Dock Locations

Profiled Landing Site: Dock 9

Dock 9 near Shoreline Village was chosen as a representative Long Beach landing site location, in part due to its relative ease of maneuverability. Additionally, the site provides anticipated compatibility with water taxi operations as a current AquaBus landing site.

As shown in Figure 12, within a half-mile walk from Shoreline Pier 9, pedestrians will have access to the Transit Gallery in Downtown Long Beach, where the Metro A Line and numerous local and regional bus lines stop. It is to be noted that specific roadway interventions and event-related infrastructure are anticipated for the duration of the event but is currently unknown. Additionally, Pier 9 will place visitors within a half-mile walk of several planned Olympic event viewing locations.

Figure 12: Shoreline Pier 7 Landing Site Profile

Route Profile

A water taxi crossing between West Harbor and Rainbow Harbor Dock 9 would range from 34 to 59 minutes depending on the vessel speed. While route options were considered for travel inside and outside of the breakwater, stakeholder interviews indicated a likely preference for a route remaining inside of the breakwater to avoid adding vessel traffic to the gates. Of that total trip time, 18 minutes of the route are within slow/no-wake zones at either end of the route, meaning that the time cannot be any faster regardless of vessel speed. The route segments and slow-down zones are detailed in Figure 13, showing their approximate locations and the route time implications of operating at various speeds. A demonstration trip held on October 6, 2025, validated the times approximated in this figure.

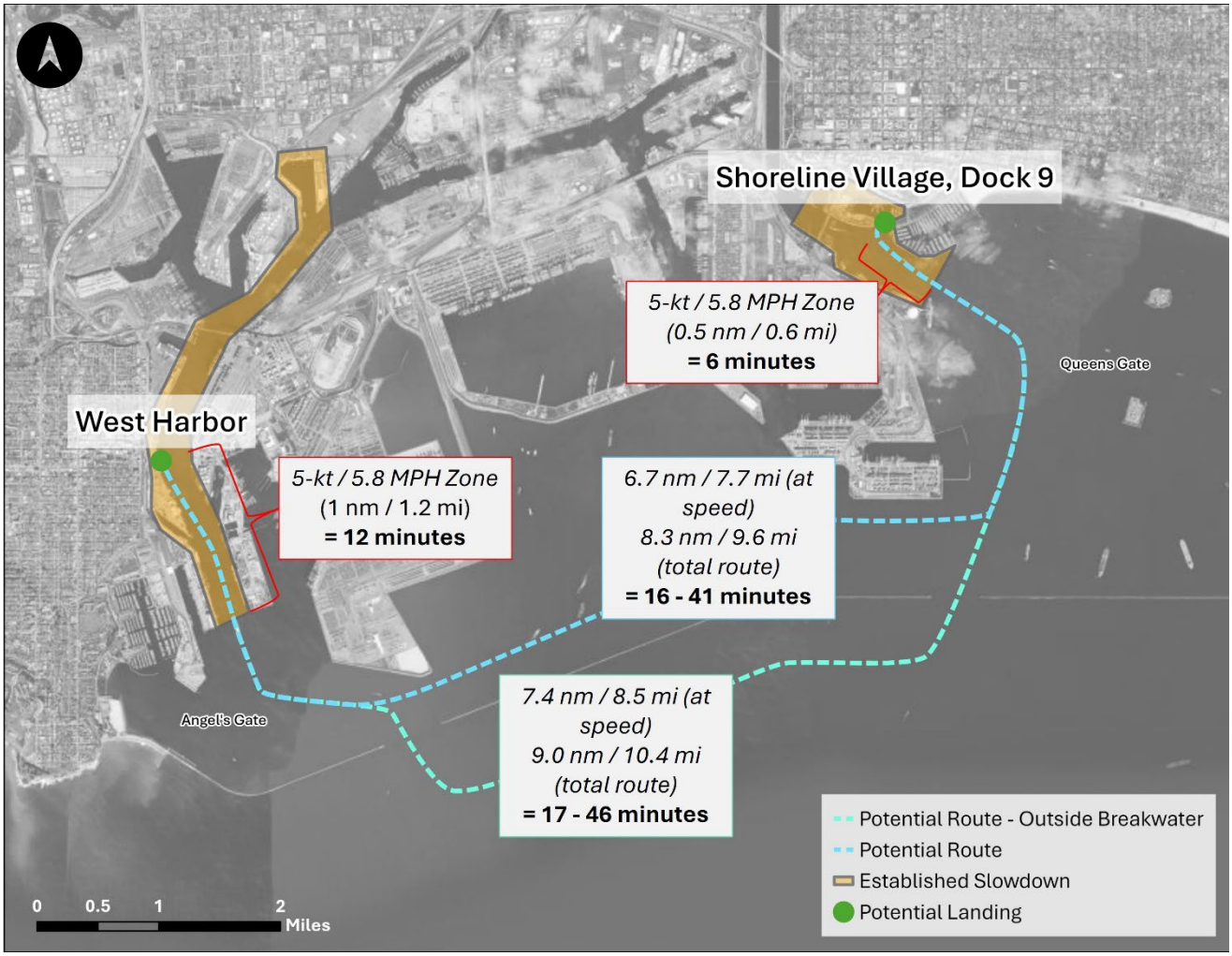


Figure 13: Route Segments

Vessel Types

Three representative vessel types were selected based on route suitability and interviews with stakeholders. Vessel types were identified to provide a range of potential vessel characteristics including cruising speed and passenger capacity. Availability during the 2028 Games of any vessels is unknown and is anticipated to be a key consideration for service feasibility.

A summary of the three representative vessel types is outlined in Table 3 below.

Table 3: Summary of Vessel Types

Large Capacity Tour Vessel

Vessel Type Characteristics

» Capacity: 350 Passengers
» Propulsion: electric or diesel-electric hybrid
» Cruising speed: 10 knots (all electric) 12 knots (hybrid operation)

Potential Operations on a San Pedro – Long Beach Route

» Crossing time: 59 minutes (all electric operation)
» Assumed dwell time: 20 minutes (including electric charging time)

Implementation Considerations

» No vessels currently in service. Two vessels currently under construction by Harbor Breeze, planned to be in service by 2026-2027.
» Shoreside charging installation also currently underway at both ends of the route, planned to be in place by 2028.

Cruise Vessels

Vessel Type Characteristics

» Capacity: 150 Passengers
» Cruising speed: 28 knots (diesel)

Potential Operations on a San Pedro – Long Beach Route

» Crossing time: 33-35 minutes, not including dwell time
» Assumed dwell time: 10-15 minutes on each end of the route

Implementation Considerations

» Currently In Service. Representative of several local vessels currently used for charter service.

AquaLink Vessels

Vessel Type Characteristics

» Capacity: 75 Passengers
» Cruising speed: 20 knots (diesel)

Potential Operations on a San Pedro – Long Beach Route

» Crossing time: 39 minutes, not including dwell time
» Assumed dwell time: 10-15 minutes on each end of the route

Implementation Considerations

» Currently In Service. Two vessels operated by LBT.

The potential vessel types identified above represent a range of passenger capacities and vessel speeds. While not profiled in this study, emerging low-emission and zero-emission vessel technologies may provide additional demonstration or future service opportunities. It is likely that any new-build vessels will be required to use a Carb Approved Emission Control Strategy (CAECS) or use shore power at-berth. Two examples of new vessel technologies that may provide opportunities for service in the near future are noted below.

Sea Change (SF Bay Ferries)

The Sea Change is a 70-foot, 75-passenger zero-emissions vessel operated by San Francisco Bay Ferries and designed by SWITCH Maritime. The vessel is powered by 360 kW hydrogen fuel cells that provide power to twin electric motors, with a hydrogen storage capacity of 246kg alongside a battery system that helps boost and balance overall load. The only emissions from the vessel's operation are water vapor, making it the first zero-emissions commercial vessel to be fully powered by hydrogen fuel cells. The Sea Change has a range of 300 nautical miles at a 12-knot cruising speed, with a top speed of 15 knots. Design for this vessel began in 2018, with official launch for public use in July 2024.

Artemis EF-24

The Artemis EF-24 is a 78-foot, 150-passenger fully electric vessel designed by Artemis Technologies. Powered by 100% electric propulsion, the vessel has a top speed of 36 knots, a cruise speed of 34 knots, and a range of 115 nautical miles. The Ef-24 features a unique foiling design that allows it to glide on top of the water, which minimizes wake, enables lower crossing times, and improves energy efficiency. The electric propulsion and foiling technologies significantly reduce emissions, with the vessel projected to achieve up to 85% fuel savings compared to traditional diesel-powered vessels. The vessel officially launched for public use in Ireland in summer 2024.

Summary of Service Scenarios

For each representative vessel type, a service scenario was developed to understand the potential capacity and service frequency that could be offered, as well as the associated costs. The scenarios assume that two to three vessels would be in service over an operating day limited to 12 total hours of crew labor per vessel over a period of 47 days during the 2028 Games. Scenarios were developed with the assumption that capital costs would be limited due to the use of leased vessels and minimal uplands improvements. Scenarios are summarized below, with additional discussion comparing their potential levels of service and estimated costs in the following section.

Scenario 1

Scenario 1 includes two 350-passenger vessels with a cruising speed of 10 knots in all-electric operation. This vessel type is modeled after two demonstration vessels currently under construction and partially funded through a recently awarded CARB grant. While these vessels

are expected to be in service by the 2028 Olympics, they are still in construction, and their future availability is currently unknown.

Scenario 2a

Scenario 2a features two 150 passenger 28-knot diesel propelled vessels, representative of a common vessel type that will likely exist at the time of the 2028 Olympics, although availability of specific vessels is yet to be confirmed. Scenario 2a includes two vessels deployed in service.

Scenario 2b

Scenario 2b assumes the same 150-passenger vessels as Scenario 2a, but with three vessels deployed instead of two to bring system capacity more in line with Scenario 1.

Scenario 3

Scenario 3 operates two 75-passenger, 20 knot diesel propelled vessels similar to LBT's AquaLink vessels.

FINANCIAL & IMPLEMENTATION CONSIDERATIONS

Planning-level cost estimates were developed for three possible service scenarios (three fleet technologies plus one operational variation) outlined above to demonstrate the range of estimated cost alongside service level metrics. Service scenarios were developed assuming 47 days of service, beginning with the first Olympics events on July 12 and ending on the last day of Paralympics events on August 27. The purpose of these planning-level costs is to provide a starting point for understanding estimated costs for 2028 Games service. If capacity and service level goals and vessel characteristics are determined in future planning phases, preliminary cost estimates necessarily will be refined.

Summary of Service Metrics and Cost Findings

Each option is measured and compared on the basis of overall cost, cost per roundtrip, cost per passenger capacity[4], crossing time, service frequency and daily passenger capacity. With a better understanding of demand for the proposed service between Long Beach and San Pedro, future decisions will be informed by the relative merits of each service scenario.

[4] Typically cost per passenger would be based on actual or project ridership. For the metric presented in Table 3, cost per passenger capacity is calculated based on total passenger carrying capacity for 47 days of service.

Table 3 presents a summary of the three service scenarios, comparing service level metrics including one-way crossing and dwell times, frequency of trips, number of round trips that can be achieved during a 12-hour operating day, and the total number of passenger trips that could be delivered, as well as the estimated operating costs. Costs are presented in 2028-level dollars.

Table 3: Summary of Scenario Metrics and Operating Costs

Summary of Scenario Metrics and Operating Costs				
	Scenario 1	**Scenario 2a**	**Scenario 2b**	**Scenario 3**
	Hybrid-electric 350-Passenger	Diesel 150 Passenger		Diesel 75-Passenger
	2 Vessels	2 Vessels	3 Vessels	2 Vessels
Trip Crossing Time (one-way)	59 minutes	34 minutes	34 minutes	39 minutes
Dwell time (one-way)	20 minutes	15 minutes	15 minutes	10 minutes
Trip Frequency	80 minutes	50 minutes	35 minutes	50 minutes
Scheduled Daily Round Trips	8	12	18	12
Potential Daily Passenger Capacity	5,600	3,600	5,400	1,800
Total Operating Cost	**$1,277,800**	**$994,700**	**$1,444,800**	**$662,300**
Operating Cost per Round Trip	$3,398	$1,764	$1,708	$1,174
Operating Cost per Vessel Passenger Capacity	$3.88	$4.70	$4.55	$6.26

Findings from comparison of service level metrics and estimated cost for operations are summarized below.

Scenario 1

This option provides the highest potential daily capacity at 5,600 total passengers, but with a 59-minute crossing time (assuming all-electric propulsion) can only provide eight roundtrips a day with departures 80 minutes apart. Total projected event operating costs are the highest with this option at $1,277,800 for the 47-day event period and about $3,398 per round trip. At $3.88 per passenger capacity, this option represents the lowest per passenger capacity operating cost.

Scenario 2a

At 3,600 passengers daily, this option delivers a lower potential daily passenger capacity than scenario 1 but with 35-minute crossings can make twelve roundtrips per day with departures every 50 minutes. Total projected operating costs are $994,700 for the 47-day event with cost per roundtrip at $1,764. At $4.70 per passenger capacity, the operating cost per passenger for this option is higher than the 350-passenger vessel option and has less than 70% of the total passenger capacity of the 350-passenger vessels.

Scenario 2b

At 5,400 passengers daily this option delivers nearly the same capacity as the two 350 passenger ferry option but with a 34-minute crossing time can make 18 roundtrips a day with departures every 35 minutes. Total projected operating costs for this option are $1,444,800 or about 13% higher than the 350-passenger ferry, but at $1,708 per roundtrip is nearly half the roundtrip cost of the 350 passenger scenarios. At $4.55 per passenger capacity this option has the lowest operating cost than the two 150 passenger scenarios.

Scenario 3

At 1,800 passengers per day this scenario delivers the fewest passengers of all the scenarios. With a 39-minute crossing time, service includes 12 roundtrips per day with departures every 50 minutes. With a total operating cost of about $662,300 this option is the least costly but due to the relatively low passenger capacity has the highest per passenger capacity cost at $6.26.

Operating and Capital Cost Details

Operations

Table 4 displays the projected 2028 operating costs for each option, with details broken out for vessel and shoreside operations, and administrative costs.

Table 4: Service Operating Cost Estimates

Operations	Scenario 1	Scenario 2a	Scenario 2b	Scenario 3
	Hybrid-electric 350-Passenger	Diesel 150 Passenger		Diesel 75-Passenger
	2 Vessels	2 Vessels	3 Vessels	2 Vessels
Expenses				
Vessel				
Labor	192,500	157,000	231,200	110,300
Fuel/Energy	167,000	209,200	303,800	143,200
Maintenance, Insurance, Misc	185,800	173,400	255,800	129,200
Vessel Lease	400,500	217,900	326,800	108,900
Total Vessel	**$945,800**	**$757,500**	**$1,117,600**	**$491,600**
Docks				
Labor	76,500	38,200	38,200	38,200
Total Dock	**76,500**	**38,200**	**38,200**	**38,200**
Total Direct Operating	**$1,022,300**	**$795,700**	**$1,155,800**	**$529,800**
Management & Support	153,300	119,400	173,400	79,500
Contractor Profit	102,200	79,600	115,600	53,000
Total Event Operating Expense	**$1,277,800**	**$994,700**	**$1,444,800**	**$662,300**

Capital

For the short term of the 2028 Games service, this study assumes that capital investments will be limited. For the Olympic event service, it is assumed that vessels will be acquired and moored through a short-term lease or provided by a private partner or contract operator. Due to the short-term nature of service, capital investments will be limited to minor shoreside improvements including temporary signage, queueing, and fare collection equipment, displayed in Table 5. In addition, an estimated cost is included for potential ramps needed to support passenger loading and unloading. Specific ramp requirements and landing site needs will need to be assessed in future phases as vessels and landing sites are selected.

Table 5: Capital Cost Estimates

Capital	Scenario 1	Scenario 2a	Scenario 2b	Scenario 3
	Hybrid-electric 350 Pax	Diesel 150 Pax		Diesel 75 Pax
	2 Vessels	2 Vessels	2 Vessels	2 Vessels
Expense				
Ramps and Landing Improvements	88,200	88,200	88,200	88,200
Signage, Queuing Improvements & Amenities	22,000	22,000	22,000	22,000
Fare Collection	4,000	2,600	2,600	2,600
Total Capital Investment	**$114,200**	**$112,800**	**$112,800**	**$112,800**

If the service is to be extended to a year-round or re-occurring seasonal service, investments might be required to build or acquire a permanent fleet of vessels, construct or lease spaces to support vessel moorage and maintenance, and complete landing site improvements including uplands passenger connections and amenities.

Summary

Table 6 presents the total estimated costs, both operating and capital, for each 2028 Games service scenario.

Table 6: Consolidated Expense & Investment Cost Estimates

Consolidated Expenses & Investments	Scenario 1	Scenario 2a	Scenario 2b	Scenario 3
	Hybrid- electric 350 Pax	Diesel 150 Pax		Diesel 75 Pax
	2 Vessels	2 Vessels	3 Vessels	2 Vessels
Operating Expense	**$1,277,800**	**$994,700**	**$1,444,800**	**$662,300**
Capital Investments	**$114,200**	**$112,800**	**$112,800**	**$112,800**
Total Service Cost Estimate	**$1,392,000**	**$1,107,500**	**$1,557,600**	**$775,100**

Potential 2028 Games Service Considerations

As details are finalized around 2028 Games operations and security requirements, adjustments to planned water taxi schedules and operating parameters will be needed. Two example situations are described below to illustrate potential impacts to service scenarios.

- **Added slow-down requirements.** To prevent any disturbances to in-water events for 2028 games or ensure safe navigation in areas with high vessel traffic, additional slow-down requirements may be considered along segments of the potential route. To date, these requirements have not been identified, however the impact of these slow-down zones will need to be revisited in order to calculate a more accurate service schedule and therefore, capacity and cost. For example, an added 1.6 nautical miles (1.9 miles) of slow, no-wake zones requiring 5-knot sailing speeds would increase the crossing time from 59 minutes to 69 minutes for a 10-knot vessel, and 34 minutes to 50 minutes for a 28-knot vessel. The increased crossing times would reduce the number of sailings available in each operating period, and thus passengers potentially served and the cost per passenger assuming full capacity.

- **Security screening:** Should the location of one or both landing sites require added levels of passenger or vessel screening, it is likely that additional passenger loading and unloading time may be required due to vessel or passenger screening requirements. This type of operational requirement could require additional uplands space for passenger screening and added operating costs for additional staff, ultimately impacting the number of trips that can be completed over a period. For example, an added 20 minutes at each end of the route would result in approximately one fewer roundtrip sailing per day for a 12-hour operating schedule, depending on the size and number of vessels serving the route. For the 350-passenger vessel size, this represents a 13% reduction in capacity.

Service Delivery Models

This section outlines three models for service delivery that a provider like Metro or Long Beach Transit might consider for financing and operating a new water taxi service.

Moving forward with service planning and implementation are dependent upon the selected service delivery model for the service. Table 7 provides a summary of the opportunities and

challenges of the options as related to 2028 Games special event service, which are discussed in more detail in the following sections, which also present examples of each type of service model. Within each model, there are varying options for the roles of the agency in service delivery and ownership and management of assets.

Table 7: Opportunities and Challenges of Service Delivery Models

	Opportunities	Challenges
Privately Owned Public Space	• Potential fast start-up with use of existing crew and assets • Varying options for agency support/ collaboration	• Typically, higher fares due to the need to remain profitable • Service schedules typically developed to maximize profitability
Public/Private Partnership	• Access to federal and state grant funding • Opportunities for faster service start-up by using staff/assets of an established operator. • Greater agency control over fare levels and service schedules.	• Less agency control over service quality • Some agency resources required for contract management
Direct Agency Delivery	• Greatest agency control over service levels and standards. • Potential integration with other modes.	• Requires the greatest commitment of infrastructure and resources by the agency. • Potential long start-up time to plan, permit, and fund capital improvements

Privately Owned and Operated Service

» **Service Delivery:** Provided by a private operator, without agency involvement
» **Ownership of Assets**: Private
» **Funding:** Ineligible for most federal grants for capital improvements or local funding subsidies. All capital and operating costs recovered through fares and non-fare revenue such as concessions.
» **Service Considerations:**
  - Fares are usually higher due to the need to remain profitable.
  - Service schedules are typically developed around higher demand periods to maximize profitability and minimize loss. Therefore, off-peak hours with less demand are either not served or underserved.
  - Potential for agency support/collaboration such as providing access to landing sites, operating shuttle connections, partnering for marketing/ticketing, etc.
  - Opportunity for fast start-up of expansion routes for an existing operator with crew and assets.

Public/Private Participation (including Metro contracting with private operator)

» **Service Delivery:** Typically involves the governing agency contracting with and providing partial or total funding to an operating entity to provide the service and comply with all regulatory and permitting requirements).
» **Ownership of Assets:** Varying options for ownership and maintenance of assets. For example, the agency may own terminals and vessels and contract with a private company to operate service and staff terminals. Or, the agency may own no assets and contract all services to be provided from a private entity.
» **Funding:** Eligible for federal, state, and local funding opportunities. Often requires some level of ongoing operating subsidy.
» **Service Considerations:**
  - Opportunities for faster service start-up by using staff/assets of an established operator.
  - Typically involves agency control over aspects of the service such as fare levels and service schedules.
  - Contracts may stipulate requirements on the operator such as data and revenue reporting, and performance measurements and targets.

NY WATERWAY
Privately Owned and Operated

NY Waterway operates the largest privately-owned commuter ferry service in the U.S., transporting more than 32,000 passenger trips per day. The operator has a fleet of 34 boats that serves 23 routes to connect communities in New Jersey to Manhattan across the Hudson and NY Harbor.

The commuter ferries are supported by a fleet of 70 NY Waterway buses that provide commuters with connections between ferry terminals and inland locations.

Direct Agency Delivery

- » **Service Delivery:** The agency manages and operates service.
- » **Ownership of Assets:** Agency directly owns or leases assets.
- » **Funding:** Eligible for federal, state, and local funding opportunities. Often requires some level of ongoing operating subsidy.
- » **Service Considerations:**
  - Provides the most control over service levels and standards.
  - Greatest opportunity to integrate service with other public transit modes and services
  - Requires the greatest commitment of infrastructure and resources by the agency, including resources to meet permitting and regulatory compliance

King County Water Taxi

Direct Agency Delivery

King County Metro (WA) owns and operates the King County Water Taxi as a public transit service. King County operates two main routes out of Downtown Seattle year-round. Legislative funding was provided in 2025 to support expanded mid-day service on the Vashon Island route.

NYC Ferry

Public/Private Partnership

NYC Ferry, owned by the NYC Economic Development Corporation and with service contracted to an operator, provides New Yorkers connections Manhattan, Brooklyn, Queens, the Bronx, and Staten Island along the East River and Hudson River. The initial service contract allowed for rapid start-up by using existing operator assets and leveraging the operator to finance and oversee new vessel construction, with assets later transferring to the owner.

Mackinac Island

Public/Private Partnership

In the case of Mackinac Island's private/public partnership, the town owns the island landing site and uses landing site agreements with private operators to controls fares and incentivize operators to provide service in the shoulder and winter seasons when service is less profitable, but depended on by a small population of year-round residents.

Permitting and Regulatory Considerations

Requirements and approvals for new routes/vessels are likely to vary depending on pilot vs. long-term service, and how the service is provided (direct agency delivery, contracted service, private operation, etc.). Potential requirements for landing site improvements and route operations are summarized in the sections below.

Partnership and coordination with permitting and regulatory agencies will be needed to support service planning and identify requirements for either short- or long-term service implementation.

Agencies with Jurisdiction

- CA Coastal Commission
- Department of Fish and Wildlife
- City of Long Beach
- City of Los Angeles
- Port of Long Beach
- Port of Los Angeles
- Water Quality Board
- National Marine Fisheries Services
- U.S. Army Corps of Engineers
- California Air Resources Board
- U.S. Coast Guard
- Department of Transportation
- U.S. Army Corps of Engineers

Landing Site Improvements

The service scenarios developed in this Study assume that improvements requiring no ground disturbance such as minor landing site improvements and boat ramps will be needed for short-term event service startup. Landing site compatibility will greatly depend upon the size of the vessel(s) that are chosen for service.

Potential permitting requirements if minor landing site improvements are required for short-term service are expected to take up to two years with the permitting agencies and approval types as outlined in Table 8 below. Should more extensive improvements (such as construction of terminals or improvements that disturb ground conditions) be necessary either for Games related service or for a long-term permanent service, permits will be needed also from the Cities of Long Beach and Los Angeles as well as various California and federal agencies

Table 8: Anticipated Permits and Approvals for Short-Term Ferry Service

Agency	Permit or Approval Type	Project Activity	Permit Timeline
Shoreside Improvements			
California Coastal Commission (California Coastal Act)	Coastal Development Permit	Work within the coastal zone, which includes the Port of Los Angeles and Rainbow Harbor	6-24 months
Port of Los Angeles	Hot Work Permit	Welding, cutting, burning, grinding, drilling and other fire and spark-producing operations	<1 month

Potential permitting requirements for major landing site improvements to support long-term service are estimated to require at minimum three years for planning and permitting before construction, as well as environmental documentation per California Environmental Quality Act (CEQA) and National Environmental Protection Act (NEPA). While the level of environmental documentation and duration of environmental analysis will depend on the types of improvements sought, a typical CEQA and/or NEPA process is expected to take approximately two years for completion if conducted concurrently.

Route Operations

In the near-term, with all elements of the water taxi service provided by a private operator working on a contract with Metro, the operator will be required to comply with all USCG requirements for crew training and each vessel's Certificate of Inspection (COI). The COI specifies the maximum number of passengers, the number and qualifications of crew members,

and any limits on the area of operations. If vessels with a passenger capacity over 150 are used, USCG-approved Facility Security Plans will be required for each landing site.

Each landing site will also have to comply with all local land use regulations as well as any fire code requirements related to passenger queueing shelters.

During the 2028 Olympic Games, additional requirements for coordination with the Planning Committee, event services organizations, local shoreside transportation providers, and the US Secret Service, to ensure an integrated multi-modal experience for riders and compliance with all safety and security zones and clearance requirements.

If the long-term plans for the water taxi service included some level of asset ownership and/or operational management by Metro, some or all of the responsibilities associated with USCG would need to be addressed in-house. These could include:

- Procuring USCG certificated vessels and maintaining them according to USCG regulations
- Hiring and training USCG crew with the credentials required on each vessel's COI
- Development and maintenance of vessel and facility security plans
- Developing and implementing long-term capital improvement plans for both vessels and facilities

Funding Opportunities

For short-term service operated during the 2028 Games, it is likely that local funding would be required for the entirety or a significant portion of costs. The grant funding options typically available to passenger ferry services are unlikely to be applicable to short-term event service unless it is presented as part of a planned ongoing service. Depending on how service is delivered, potential partnerships may provide options for shared or reduced costs.

For potential long-term service extending beyond the 2028 Games, a portfolio of sustainable funding sources is needed. The following sections discuss funding opportunities services operated through direct agency delivery or a public/private partnership where the agency owns some or all of the vessel or landing site assets.

Capital Funding

Capital costs for water taxi service include vessel procurement and landing site improvements. Multiple state, federal, and local sources can be used by public agencies to fund capital projects, including tax levies, state and local budget appropriations, and grants from State and Federal agencies such as the California State Transportation Agency (CalSTA) and the Federal

Transit Administration (FTA). Eligibility for specific funding opportunities may depend on service characteristics or vessel technologies used.

Example federal grants available to a potential agency-provided San Pedro – Long Beach water taxi include:

- **Federal Transit Administration (FTA) Passenger Ferry Grant Program:** Provides competitive, capital funding for ferry systems in urban areas, including vessels, terminals, and infrastructure.
- **Federal Highway Administration (FHWA):Surface Transportation Block Grant and National Highway Performance Programs:** Provides funding to states for transportation projects, including ferry projects.
- **FHWA PROTECT Program:** Funding for projects that support resiliency for events like sea level rise and other natural disasters.
- **Department of Transportation (DOT) Better Utilizing Investments to Leverage Development (BUILD) Grants:** A competitive, multi-modal grant program that can be used for ferry vessel and terminal projects.

FTA's Passenger Ferry Grant Program for urban areas and the Electric or Low-Emitting Ferry Program provide funding for vessel and shoreside infrastructure projects. Recent awards in California include:

- In the most recent 2024 grant cycle, the Golden Gate Bridge, Highway and Transportation District was awarded $4.9 million to implement a new, low emissions vessel under the Electric/Low-Emitting FTA grant program
- The San Francisco Bay Area Water Emergency Transportation Authority (WETA) was awarded $11.5 million in 2024 to build two new electric vessels under the Electric/Low-Emitting FTA program
- In 2022, under the FTA Passenger Ferry program, Los Angeles County Metropolitan Transportation Authority (LACMTA) won $5 million to renovate the existing Cabrillo Mole Ferry Intermodal

California Air Resources Board (CARB)

CARB offers grant funding to support emissions reduction projects. Recent awards in California include:

- The San-Diego-Coronado Ferry service in San Diego Bay, operated by Flagship Cruises & Events, recently received $15.27 million from CARB to build two new zero-emissions, fully electric vessels
- The Balboa Island Ferry in Newport Beach was awarded $8.3 million in May 2025 to replace the existing diesel boats with electric vessels and install dockside charging infrastructure
- In early 2025, $31 million was awarded to the Port of Los Angeles to develop and implement a series of emissions-reduction projects.

Additional state and federal funding opportunities may be available for projects which meet specific goals, such as emissions reduction or use of innovative technologies. Eligibility, scoring, and funding levels for federal grants may change year to year and can be set based on the priorities of the administration in place. Example grant funding opportunities include:

- **FTA Electric or Low-Emitting Ferry Program:** Supports capital projects for low- or zero-emission ferries and shoreside infrastructure.
- **Carl Moyer Memorial Air Quality Standards Attainment Program:** Provides funding for repower or replacement of vessels operating in the South Coast region. Also includes limited options for shore power projects.

Operating Funding

Ongoing water taxi operating costs, including those for staff and crew wages, fuel, and maintenance activities for terminals and vessels, require sustainable and continually-acquired funding sources. Revenue from fares and concessions are typically insufficient to cover all operating costs. For systems governed through public-private partnerships or direct agency delivery, multiple state, federal, and local sources may be available and can be used to fund operating costs, including tax districts and levies and capital costs through grants from state and federal agencies.

The FHWA Ferry Boat Program is an example of a funding source that has been used by water taxi operators in California to cover operating costs, as well as costs for construction of vessels and terminal facilities. Ten operators in California received a combined $7.3 million in Fery Boat Program formula funding in fiscal year 2025.

Implementation Next Steps

This planning level study focused on identifying the opportunities and challenges for implementation of a new San Pedro – Long Beach water taxi route during the 2028 Games, with the goal of providing decision makers with information about the range of capabilities of a potential route and cost estimates based on <1% design. Results from this study are based on best-known information and as such, additional policy decisions and planning work will be needed to bring this route to implementation, including the steps described below.

Identify Service Delivery Model and Potential Partners

- Identify which entity/entities will be responsible for funding and operating service.
    - Of the delivery models identified to implement the water taxi service, two models rise as opportunities – a private/public contracting arrangement is most likely to allow immediate start-up of service as well as bring benefits of public sector access to funding programs. Metro or another agency could contract this service with an operator that would own and maintain all assets, operate services with appropriate crewing levels and training, and obtain all permits and comply with regulatory requirements.

      Another option would be a privately provided service by an operator for profit. While this would be the most expeditious way to provide the service, interest and availability for the service from private operators is unknown, and public entities would have little to no authority over service requirements and/or performance.

      Finally, this study finds that a publicly delivered service would be infeasible if an agency does not already operate such service, given the long lead times and expertise required for standing up service in time for the 2028 Games. In other words, a transit agency like Metro would have neither the expertise nor existing assets for water taxi service and would thus require significant start-up time and resources.
- Continue stakeholder coordination and discussions to identify opportunities and concerns.
- Confirm service goals, including minimum level of service.

Gather Additional Information and Plan for 2028 Games Implementation

- As 2028 Games transportation and event plans are progressed, complete analysis of travel demand to inform service schedule and level of service requirements. Forecast

demand is also a key factor in selecting an appropriate vessel to meet demand while minimizing operating costs.

- Coordinate with existing operators and partner agencies to understand potential vessel availability for 2028 Games service.
    - A Request for Information could be issued to operators to gauge interest in providing the service and gather specific information such as which vessels an operator has available for the service, and potential fares and service levels.
- Conduct public outreach to assess interest and build support.
- Partner and align with existing LA28 and waterfront development planning efforts wherever feasible.

Finalize Route Alignment

- Identify preferred landing site locations and route options and assess if improvements are needed based on confirmed vessels.
    - In addition to point-to-point service, alternative route configurations could be explored, along with potential connections to additional communities such as Wilmington.
- Coordinate with LA28 Games planners and San Pedro Harbor stakeholders to refine understanding of security and operating impacts to potential route feasibility.

Plan for Funding and Service Contracting

- Develop a financial *pro forma* including identification of funding sources, fare structure and fare policy, and funding plan.
- Work towards landing sites agreements at both ends of the route.
- Prepare for procurement and contracting for service operations.

Next Steps toward Long-Term Service

If service is continued into the long-term with direct agency delivery or ownership of assets, additional planning is needed to develop infrastructure requirements, service plans, and a sustainable funding portfolio.

- **Vessels.** Options include leasing existing vessels or purchasing new vessels. Depending on factors such as the size and propulsion technology, design and construction of a new vessel may have a long lead time of around two to three years. For long-term service, it is likely that back-up vessels will be needed to support service reliability.
- **Landing sites.** Design and permit landing improvements- while aligning with any existing redevelopment plans wherever possible

- **Ferry program infrastructure.** Direct agency delivery may require expansion of agency-owned assets and operating capabilities including potential homeport facility or moorage space, vessel maintenance facilities and staff, and added shoreside amenities.

Board Report

File #: 2025-0418, **File Type:** Motion / Motion Response **Agenda Number:** 9.

AD HOC 2028 OLYMPIC AND PARALYMPIC GAMES COMMITTEE
MAY 14, 2025

Motion by:

DIRECTORS HAHN, BUTTS, DUTRA, DUPONT-WALKER, AND BUTTS

Feasibility Study of Water Taxi Service Between San Pedro and Long Beach

As Los Angeles gears up to host the 2028 Summer Olympic and Paralympic Games, LA Metro will be expected to deliver a world-class transportation network that is efficient, sustainable, and accessible for everyone. To meet the region-wide demand the Games will bring, strengthening partnerships with local transit agencies and community stakeholders will be vital in ensuring that residents, employees, and visitors get to and from their major destinations with ease and reliability.

The City of Long Beach will play a key role in the 2028 Olympics and Paralympics, hosting over a dozen events across its waterfront venues. With visitors anticipated to stay across the Greater Los Angeles area, establishing a water taxi service that links San Pedro and Long Beach would help alleviate congested roadways and reduce impacts to residents, while also providing access to Olympic and Paralympic venues, cultural hubs, and cruise terminals.

San Pedro, a diverse neighborhood located along the southern coast of Los Angeles County, has strong potential to serve as a 2028 Games fan zone. Its waterfront setting with deep cultural roots and historic ties to international communities like the Croatian-American population makes it an ideal gathering place for fans. Last year, the president of the Croatian Olympic Committee signed an agreement to establish Croatia House in San Pedro as a cultural venue celebrating Croatian heritage during the 2028 Games. The Croatia house will serve as a gathering place for athletes, fans, and locals, featuring cultural events, and live broadcasts. Establishing a water taxi connection would not only support crowd flow and regional mobility but also spotlight San Pedro as a welcoming and dynamic part of the Olympic and Paralympic experience.

Currently, Long Beach Transit (LBT) provides service to more than 17 million riders each year throughout the Gateway Cities and Greater Los Angeles region, offering bus routes, water taxi services, and paratransit options. Their water taxi service consists of two 40-foot, 38-passenger AquaBus vessels serving the Long Beach harbor and Aquarium of the Pacific. Additionally, Long Beach Transit operates two 68-foot, 75-passenger AquaLink catamarans, which serve the Long Beach waterfront between Alamitos Bay Landing, the Queen Mary, and Downtown Long Beach. These vessels are accessible to mobility devices, bicycles, and provide connections to LBT's regular fixed-route bus service. LBT's water taxi service, including the AquaBus and AquaLink, has become

increasingly popular among residents and visitors, demonstrating the demand for water-based transportation, especially during special events like the Long Beach Grand Prix.

SUBJECT: FEASIBILITY STUDY FOR WATER TAXI SERVICE BETWEEN SAN PEDRO AND LONG BEACH MOTION

RECOMMENDATION

APPROVE Motion by Hahn, Bass, Dutra, Dupont-Walker, and Butts that the Board direct the Chief Executive Officer to:

A. Initiate conversation and coordination with Long Beach Transit and the Port of LA to assess existing services and explore the feasibility of establishing a water taxi service to connect San Pedro and Long Beach in preparation for the 2028 Summer Olympic and Paralympic Games. This study shall include:

1. Route Identification: Evaluate optimal and safe routes for operation between San Pedro and Long Beach, considering factors such as navigational safety, environmental impact, and accessibility;

2. Infrastructure Assessment: Assess potential docking facilities, terminals, and necessary infrastructure upgrades to support the proposed water taxi/ferry service;

3. Financial Analysis: Estimate capital and operating costs associated with extending, establishing, and maintaining the water taxi service during and after the 2028 Summer Olympic Games. Include revenue projections, and potential local, state, and federal funding sources that could be eligible for operating and capital costs;

4. Partnership Opportunities: Identify opportunities for public and private partnerships to support the development and operation of the water taxi service;

5. Jurisdictional Governance: Identify any maritime (e.g. Coast Guard) regulations, environmental permits (e.g. Coastal Commission), etc that would govern such service;

6. Ridership Demand: Develop a service plan and estimate demand for service based on seasons, travel time, convenience, etc.; and

7. Passenger Transport: Evaluate vessel type and capacity for such use that can accommodate demand, water depth, customer comfort, safety and operational requirements.

B. Consult with local labor unions and subject matter experts- including, but not limited to, unions representing maritime workers, transportation operators, and dock personnel;

C. Recommend technical, financial, and other ways that Metro could support the establishment or expansion of a water taxi between San Pedro and the City of Long Beach; and

D. Report back on the above action items in 90 days.

San Pedro – Long Beach Water Taxi Feasibility Study

Summary of External Partnerships and Stakeholder Engagement

For the purposes of this feasibility study, Metro focused on coordination and input from a targeted group of key stakeholders, including the following.

- City of Long Beach: The City will be hosting 18 sporting events during the 2028 Olympic and Paralympic Games, including rowing, sailing and open water swimming along Belmont Shore. Metro staff met with representatives from the City, including staff from the office of the City Manager, Government Affairs, and Special Events to garner feedback and input on the project.

  Long Beach Transit (LBT): LBT, with operations contracted to a private operator (currently Catalina Express), provides water taxi services to the Long Beach waterfront between Alamitos Bay Landing, the Queen Mary, and Shoreline Village in Downtown Long Beach. LBT's existing water taxi services are operated seasonally in the summer months (April to September) and are planned for operation during the 2028 Games. LBT currently is conducting an evaluation of transit services for the 2028 Games, including enhancements to bus and ferry services and strategies for transitioning to zero emission propulsion systems.

  Metro staff briefed the LBT CEO on two occasions and met several times with LBT's senior leadership team, who have been partners in providing access to operating costs and service planning data for existing AquaLink and AquaBus services, and guidance on operations and unique conditions of Long Beach's service areas.

- San Pedro Bay Ports of Long Beach and Los Angeles: The harbor serves as a major American gateway for international trade and shipping, with 47 operating cargo terminals across the two ports. The project team met with the Ports of Los Angeles and Long Beach, the two major seaports that form the San Pedro Bay Port Complex, to provide information on the study and gather feedback.

  In addition to cargo shipping uses, San Pedro Bay serves various other maritime uses that are anticipated to contribute to vessel traffic during the 2028 Games, including ancillary cargo shipping services like tugboats, pilot services, oil crew and equipment transport; and major cruise ships and terminals, chartered operators and recreational activities like sailing, fishing and whale watching; and private boats.

- Charter Service Operators: Meetings were conducted with private charter operators, including Harbor Breeze and Catalina Express, to understand their service models, operating parameters, fleet capacity, docking and fueling infrastructure, and anticipated plans for service during the 2028 Summer Games.

Additionally, operators provided feedback on operating considerations for passenger vessels in the San Pedro Bay and potential conditions during the 2028 Summer Games.

- Labor Unions: The project team invited local unions representing maritime workers, transportation operators, and dock personnel to two separate stakeholder engagement meetings. Those invited included the LA/OC Building Trades Councils, ILWU Local 13, ILWU 94, ILWU 63 and SEIU 721; one union representative attended the discussion.

  Feedback received from labor was useful for evaluating opportunities and constraints for the water taxi service, particularly with the expected closure of the Vincent Thomas Bridge, workforce access to the ports, and potential community responses.

- LA 28: Metro coordinated with LA 28 to receive periodic updates as details continue to emerge on event locations, security perimeters, spectator and staging areas, hospitality sites, event schedules, and event durations. As information continues to evolve, the study's outline of opportunities and constraints is expected to continue to inform decision-making about the potential service.

San Pedro–Long Beach Water Taxi Feasibility Study

Executive Management Committee
Operations, Safety, and Customer Experience Committee
November 20, 2025

Metro

Study Overview

Feasibility study completed to identify opportunities, constraints and feasibility of establishing water taxi service between San Pedro and Long Beach for the 2028 Olympic & Paralympic Games (and beyond).

Opportunities

- Boost local tourism and economic development, showcase San Pedro Bay natural resources, and highlight national/global economic gateway
- Create a "transport-tainment" alternative to roadway travel with access to 2028 Games venues and major attractions
- Provide a direct connection between San Pedro and Long Beach waterfronts, to avoid potentially congested traffic conditions during the Games
- Potential to use 2028 Games as a demonstration/catalyst for long-term service

Constraints

- Security perimeters and operating procedures will continue to evolve
- Availability of vessels (supply & technology) and infrastructure; unknown demand
- Significant start-up for transit agency delivery, especially if water taxi service is new
- Long lead-times for capital improvements (especially for permanent services)
- Funding

Metro

STUDY PARTNER

- Long Beach Transit

STUDY STAKEHOLDERS

- Port of Long Beach
- Port of Los Angeles
- City of Long Beach
- Select San Pedro Bay vessel operators
- LA28
- Labor representatives

November 2025

Route Context

Assumed Landing Locations

San Pedro: 2028 Games sailing events, hotels, waterfront attractions
Assumed landing site: West Harbor

Long Beach: Concentration of 2028 Games events, waterfront attractions, hotels, existing water taxi services
Assumed landing site: Shoreline Village Dock 9

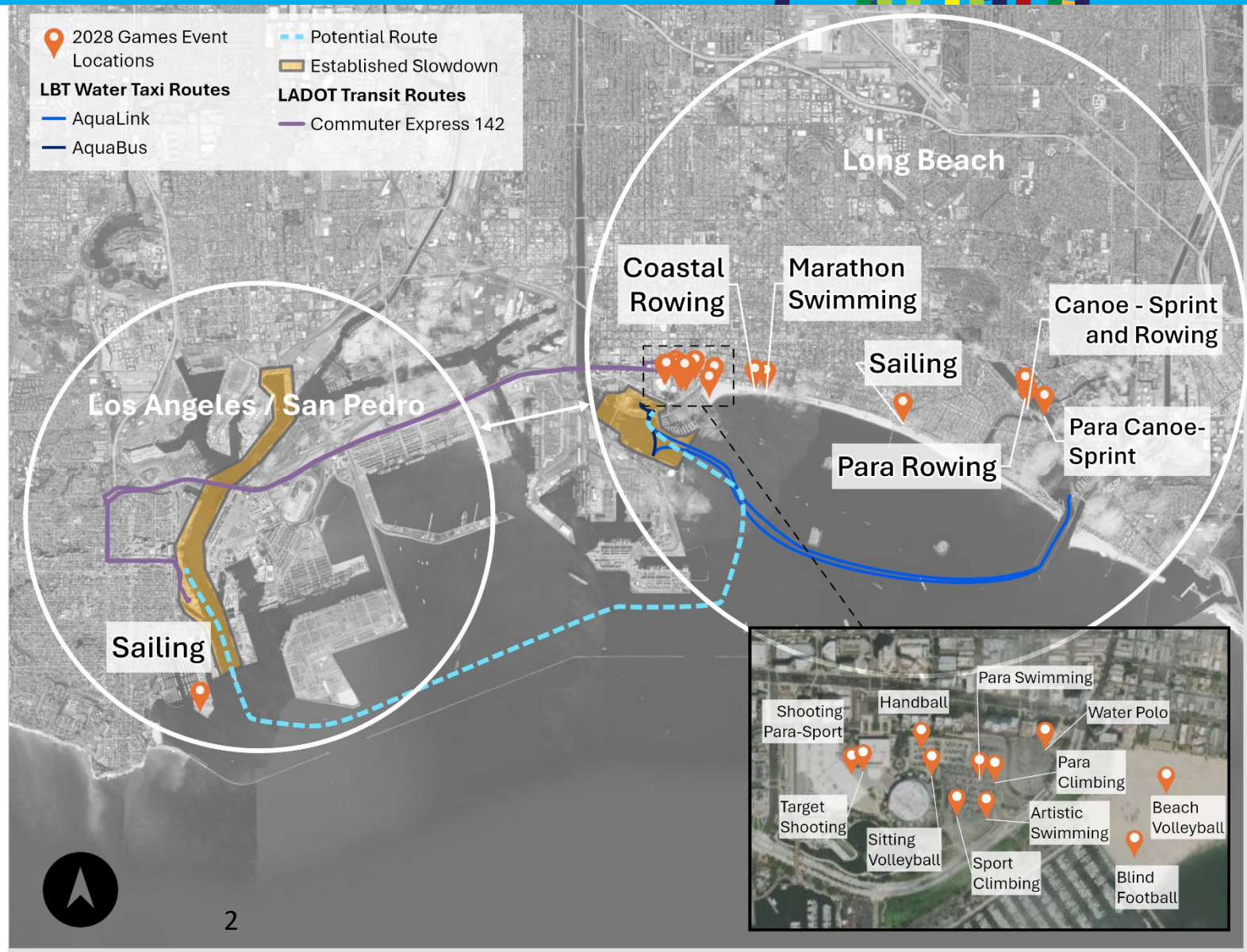
Water Taxi Trip

Total one-way crossing: 39–59 minutes
Includes slow (no-wake) zones, does not include dwell time.
Range due to vessel speed scenarios

Transportation Alternatives

Driving: 16-28 minutes
Does not include parking time or cost

LADOT Commuter Express: 26 minutes
Half hourly departures



Service Scenarios – Summary of Metrics & Costs[1]

Fleet Configuration	Scenario 1 350 350	Scenario 2A 150 150	Scenario 2B 150 150 150	Scenario 3 75 75
Vessel Description	(2) 350-passenger hybrid-electric vessels	(2) 150-passenger diesel vessels	(3) 150-passenger diesel vessels	(2) 75-passenger diesel vessels
Trip Crossing Time (one-way)	59 minutes	34 minutes	34 minutes	39 minutes
Assumed Dwell time (one-way)	20 minutes	15 minutes	15 minutes	10 minutes
Scheduled Daily Round Trips	8	12	18	12
Scheduled Time between Departures	80 minutes	50 minutes	35 minutes	50 minutes
Potential Daily Passenger Capacity	5,600	3,600	5,400	1,800
Total Operating Cost (47 service days) [2]	**$1,278,000**	**$995,000**	**$1,445,000**	**$662,000**
Operating Costs per Round Trip	$3,398	$1,764	$1,780	$1,174
Operating Cost per Passenger Seat [3]	$3.88	$4.70	$4.55	$6.26
Estimated Capital Costs [4]	**$114,000**	**$113,000**	**$113,000**	**$113,000**
Total Estimated Costs (47 service days)	**$1,344,000**	**$1,084,000**	**$1,535,000**	**$751,000**

Assumes all-electric propulsion with shoreside charging

[1] *Costs in 2028 dollars, based on feasibility-level (<1%) design and analysis*

[2] *The 47-day service period is the time between the start of the Olympic Games and the end of the Paralympic Games*

[3] *Cost per passenger capacity is calculated using total passenger carrying capacity over the 47 days of service*

[4] *Assumed minimal needs with service contracted to an existing operator*

Permitting and Environmental Considerations

Development Permits for Landing Site Improvements

Games Service: Minimal improvements assumed with no ground disturbance

- Minimal permitting with no CEQA/NEPA (up to 2 years)

Permanent Service: More extensive improvements assumed

- More extensive permitting (3 years)
- CEQA/NEPA (2 years)

Operating Permits

Games Service and Permanent Service: Same operating permits

- US Coast Guard Certificate of Inspection (3+ months)
- US Coast Guard Merchant Mariner Credential (90 days)
- California Public Utilities Commission (1-3 months)
- South Coast Air Quality Management District (ferry terminal operating permit) (180 days)
- City of Long Beach Slip Permit (1 month)

New Vessels: Procurement, Design and Construction

- Procurement, Design, Construction (up to 3 years)
- Compliance with CARB's Commercial Harbor Craft Regulation (depends on vessel type, route)

Potential Agencies with Jurisdiction

Landing Site Improvements:

- CA Coastal Commission
- Department of Fish and Wildlife
- City of Long Beach
- City of Los Angeles
- Port of Long Beach
- Port of Los Angeles
- Water Quality Board
- National Marine Fisheries Services
- U.S. Army Corps of Engineers

Water Taxi Operations:

- U.S. Coast Guard
- Department of Transportation
- California Air Resources Board
- California Public Utilities Commission

Metro

November 2025

Delivery Models

MODEL	OPPORTUNITIES	CHALLENGES	METRO DELIVERY
Private **Service provided by a private operator, without agency involvement.**	• Potential fast start-up with use of existing crew and assets • Varying options for agency support/ collaboration	• Typically, higher fares due to the need to remain profitable • Service schedules typically developed to maximize profitability	• N/A
Public/Private Contracting **Typically involves the governing agency contracting for provision of transportation service and providing partial or total funding. Varying options for ownership and maintenance of assets and landing sites.**	• Access to federal and state grant funding • Opportunities for faster service start-up by using staff/assets of an established operator • Partnership on service marketing for launch and ridership growth • Greater agency control over fare levels and service schedules • Opportunity for integration of fare payment media (e.g., TAP card)	• Less agency control over service quality • Ongoing subsidy requirements • Some agency resources required for contract management	• Varying options for Metro delivery as a contracting agency, supporting agency, or in partnership with others
Direct Agency Delivery **The agency manages and operates service, while directly owning or leasing assets and landing sites.**	• Access to federal and state grant funding • Greatest agency control over service levels and standards • Potential coordination with other modes and integration of fare payment media (e.g., TAP card)	• Requires the greatest commitment of infrastructure and resources by the agency related to operation and capital programming for a new mode • Potential long start-up time to plan, permit, and fund capital improvements	• Infeasible

Next Steps

Should the Metro Board decide to continue to explore implementation, Metro would

- Gauge industry interest in implementing service for the Games by developing one of the following two options:
  - Request for Interest
  - Reverse Pitch to Industry