An aerial photograph of the Berkeley Marina area, showing a large body of water filled with numerous sailboats and yachts. In the background, a dense urban area of Berkeley, California, is visible under a blue sky. The foreground shows a stone breakwater and a pier. The entire image is overlaid with a semi-transparent blue filter.

**Berkeley Marina Area
Specific Plan
+
Berkeley Pier/Ferry Facility
Planning Study**

**COUNCIL
WORKSESSION**

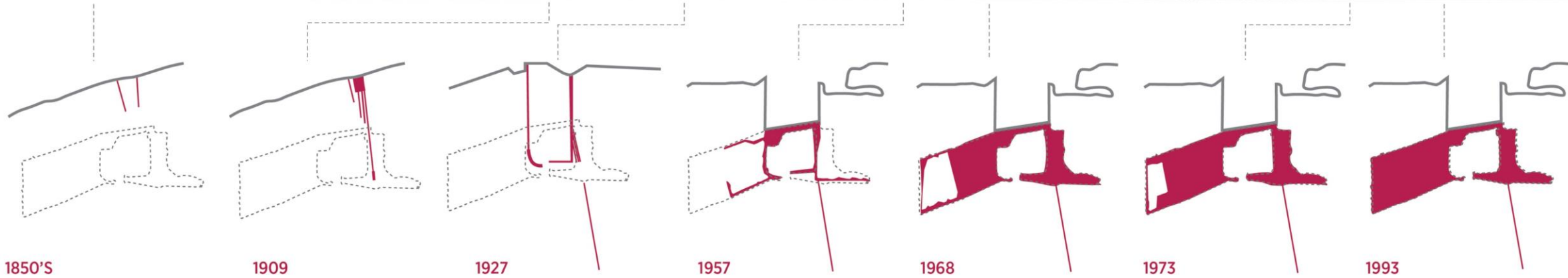
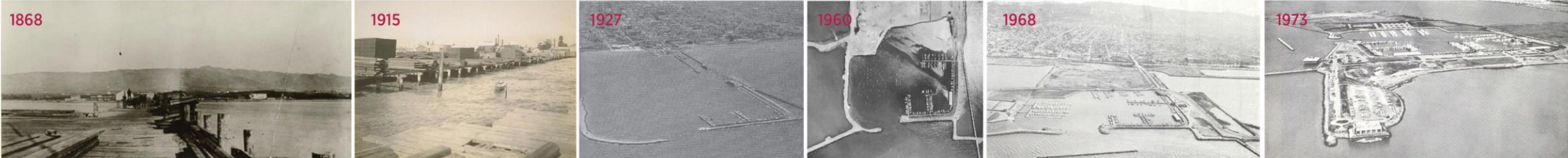
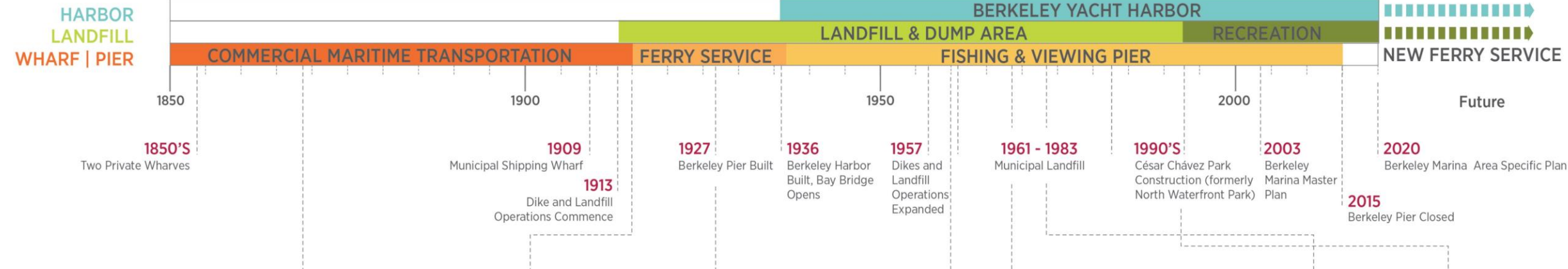
February 16, 2021

Overview

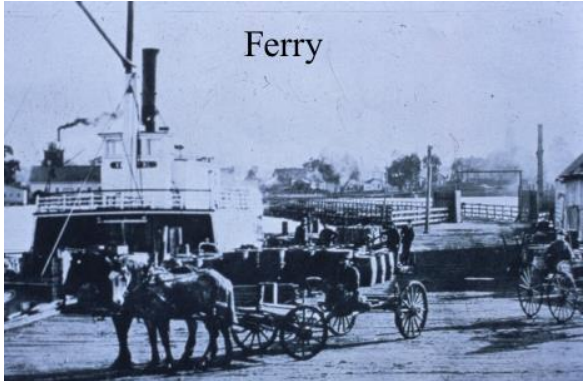
An aerial photograph of a coastal city, likely Seattle, showing a large marina filled with sailboats in the foreground, a city built on a hillside in the middle ground, and mountains in the background. The image is overlaid with a semi-transparent blue filter.

- Waterfront background and issues
- Update on status of Pier/Ferry and BMASP projects
- Discuss possible solutions and changes
- Get City Council feedback

History of Berkeley Marina



Berkeley Marina History



Existing Berkeley Marina



Berkeley Waterfront Regulatory Agencies + Land Use Restrictions

Land Use Restrictions

- State Lands Commission – Tideland Grant Trust (1913)
- BCDC - 100' Shoreband Jurisdiction
- BCDC – 199 Seawall Drive and Parking Lot – Fill Permit (1966)
- City of Berkeley Measure L – Open Space Ordinance (1986)
- Land and Water Conservation Fund (LWCF) Grants – (early 1980)

Regulatory Agencies

- Army Corp of Engineers
- BCDC
- California Department of Fish and Wildlife
- State Regional Water Quality Control Board
- State Lands Commission



Economics of Berkeley Marina Area

Operating Revenues*

- Berth Rental Fees (55%)
- Hotel Lease (21%)
- Other Leases (14%)
- Other Boating Fees (5%)
- Youth Programming (2%)
- Other (2%)
- Water-Based Recreation (1%)



**Marina
Fund**

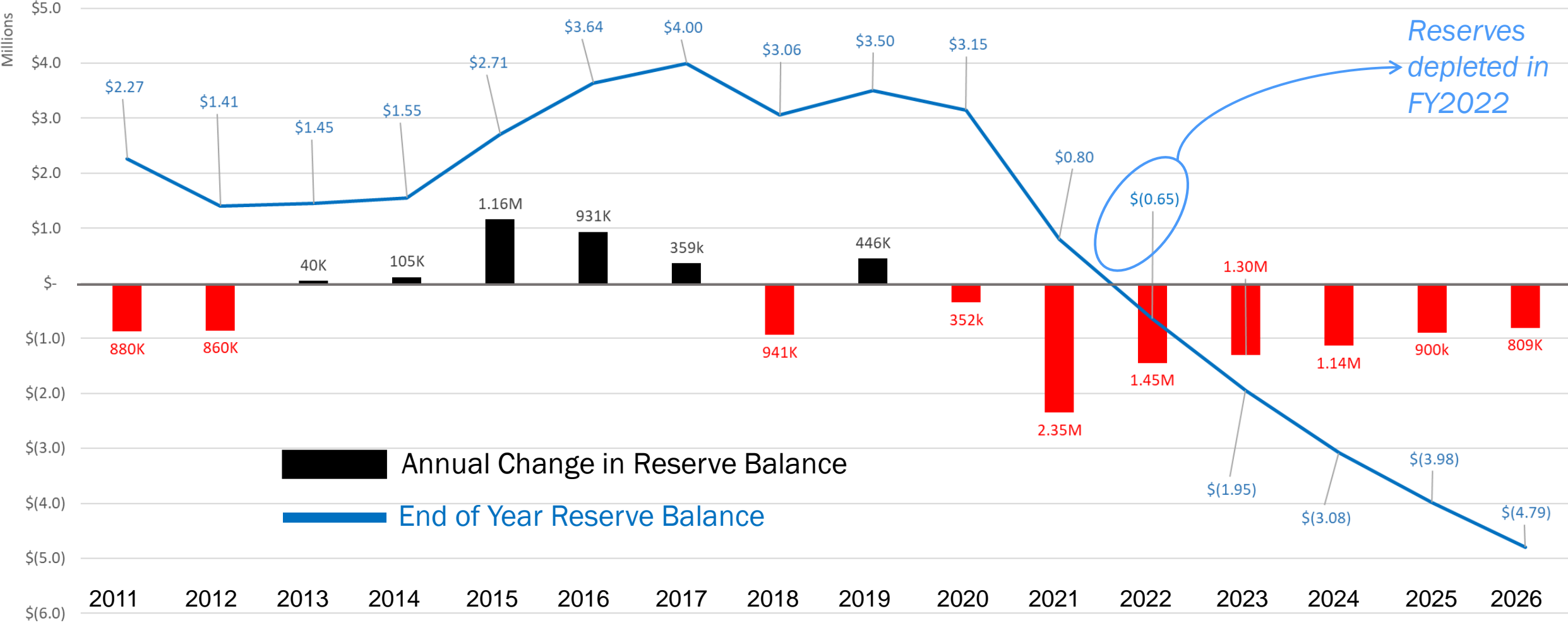


Operating Expenses

- Marina Operations
- Waterfront Maintenance
- Capital Projects
- Lease Management
- Recreation Programs
- Internal Service Charges
- Debt Service
- Security
- Special Events

*Based on FY19 revenue

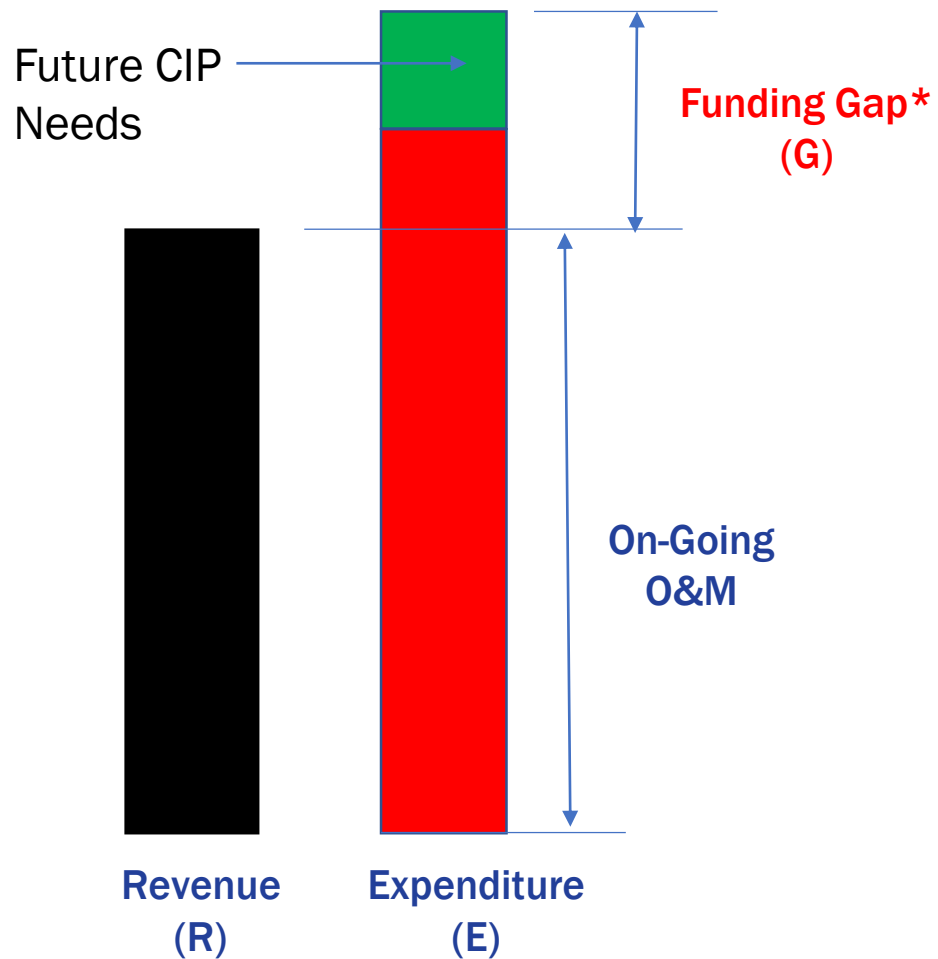
Marina Fund Challenges



Marina Fund Challenges

- Marina Fund was never set up to succeed.
 - Low berther fees for decades
 - Lack of capital replacement fund
 - Lack of infrastructure replacement
- Fund has now reached the tipping point.
 - Safety and security issues
 - Failing infrastructure
 - COVID-19
- Revenue unable to cover basic operating expenses.
- No additional funds for > \$100M in infrastructure needs.

Waterfront Funding Gap



BMASP Process

Identify community supported potential solutions for new revenue generation



Community Input Process



Viable Solutions



Funding Gap (G)

***Funding Gap will include sufficient and stable stream of funding to support 5-year CIP Plan**

Capital Projects Update



- 1. South Cove East Parking Lot & Restroom
- 2. Bay Trail Extension – Segment 3
- 3. South Cove ADA Accessible Gangway at Middle Dock
- 4. South Cove Floating Docks Replacement

Complete

- 5. Marina Streets Reconstruction [Bidding]
 - University Ave (W Frontage Rd to Marina Blvd)
 - Spinnaker Way
 - Marina Blvd
- 6. O&K Docks Electrical Upgrade [Bid by April]
- 7. Electronic Bicycle Lockers [Awarding Contract]

2021

Construction

- 8. D&E Docks Replacement
- 9. South Cove West Parking Lot
- 10. Selective Timber Pile Replacement
- 11. Cesar Chavez Park Restroom

Design

- 12. K-Dock Restroom Renovation
- 13. Municipal Pier Structural Assessment & Ferry Facility Feasibility Study
- 14. Marina-wide Sea Level Rise Vulnerability Study
- 15. Berkeley Marina Area Specific Plan

Planning

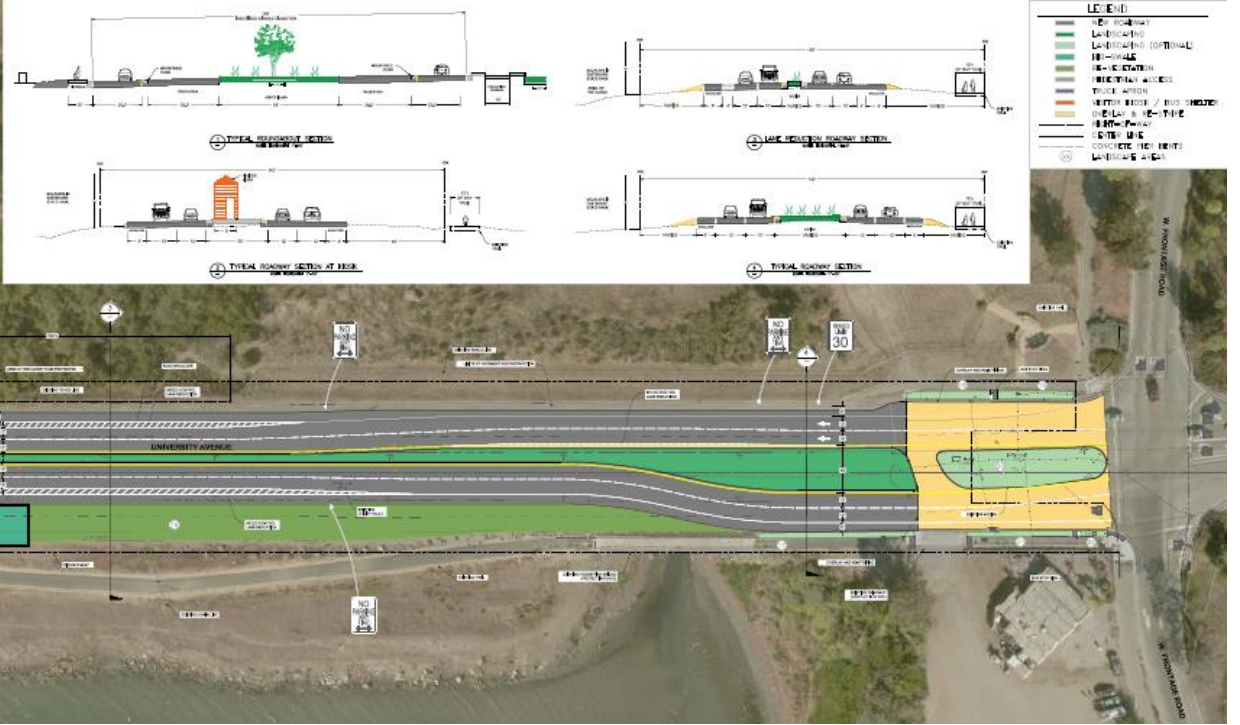


CalTrans University Ave/I-80 Interchange Improvement

Major Capital Projects – Funding Source

PROJECT	Marina Enterprise Fund	Grants	State Loans	Measure T1	Public Works	General Fund
1. South Cove East Parking Lot & Restroom	✓	✓				
2. Bay Trail Extension – Segment 3	✓	✓				
3. South Cove ADA Accessible Gangway at Middle Dock		✓				
4. South Cove Floating Docks Replacement (East & West Docks)	✓					
5. Marina Streets Reconstruction (University Ave/Spinnaker Way/Marina Blvd)				✓	✓	
6. O&K Docks Electrical Upgrade	✓					✓
7. Electronic Bicycle Lockers	✓	✓				
8. D&E Docks Replacement			✓	✓		
9. South Cove West Parking Lot (Design Only)	✓					
10. Selective Timber Pile Replacement				✓		✓
11. Cesar Chavez Park Restroom (On Spinnaker Way)				✓		
12. K-Dock Restroom Renovation				✓		
13. Municipal Pier Structural Assessment & Ferry Facility Feasibility Study	✓	✓		✓		
14. Marina-wide Sea Level Rise Vulnerability Study	✓			✓		
15. Berkeley Marina Area Specific Plan						✓

Recently Completed Capital Projects



Decaying Infrastructure



Landside Infrastructure Needs: est. \$23M

Vital improvements needed within the next 20 years to upgrade decaying infrastructure.

UTILITY IMPROVEMENTS (\$4.5 M)

Sewer Collection System

Emergency Fire Service

Stormwater Quality Improvements



PAVEMENT REHABILITATION (\$3.4 M)

University Ave (Marina Blvd to Seawall Dr)

Seawall Dr



PARKING LOTS (\$10.5 M)

F & G Dock Lot, O Dock and Yacht Club Lot, J & K Dock Lot

N Dock and Skates Lot, Launch Ramp Lot, L & M Dock Lot, Lordships' Lot

Construction of South Cove West Lot



SIDEWALKS/ PATHWAYS (\$4.6 M)

Cesar Chavez Park Perimeter Trail

Marina Boulevard Trail

Completion of Bay Trail Master Plan

General Sidewalk/ Pathway Upgrades

Waterside Infrastructure Needs: est. \$64.5M to \$108M

Shoreline & Over-Water
\$10.5M to \$12M

SLR/Shoreline Stabilization
Cost: \$5.8M to \$7M

South Sailing Basin Seawall Replacement
\$4.8M

Dredging, Pier, and Breakwaters
\$19M to \$61M

Dredging (South Cove Sailing Basin & Marina Entrance)
\$4M to \$6M

Berkeley Pier Design/Construction
\$15 to \$55M (TBD)

Docks
\$35M

Dock Replacement
\$35M

Infrastructure Maintenance
TBD

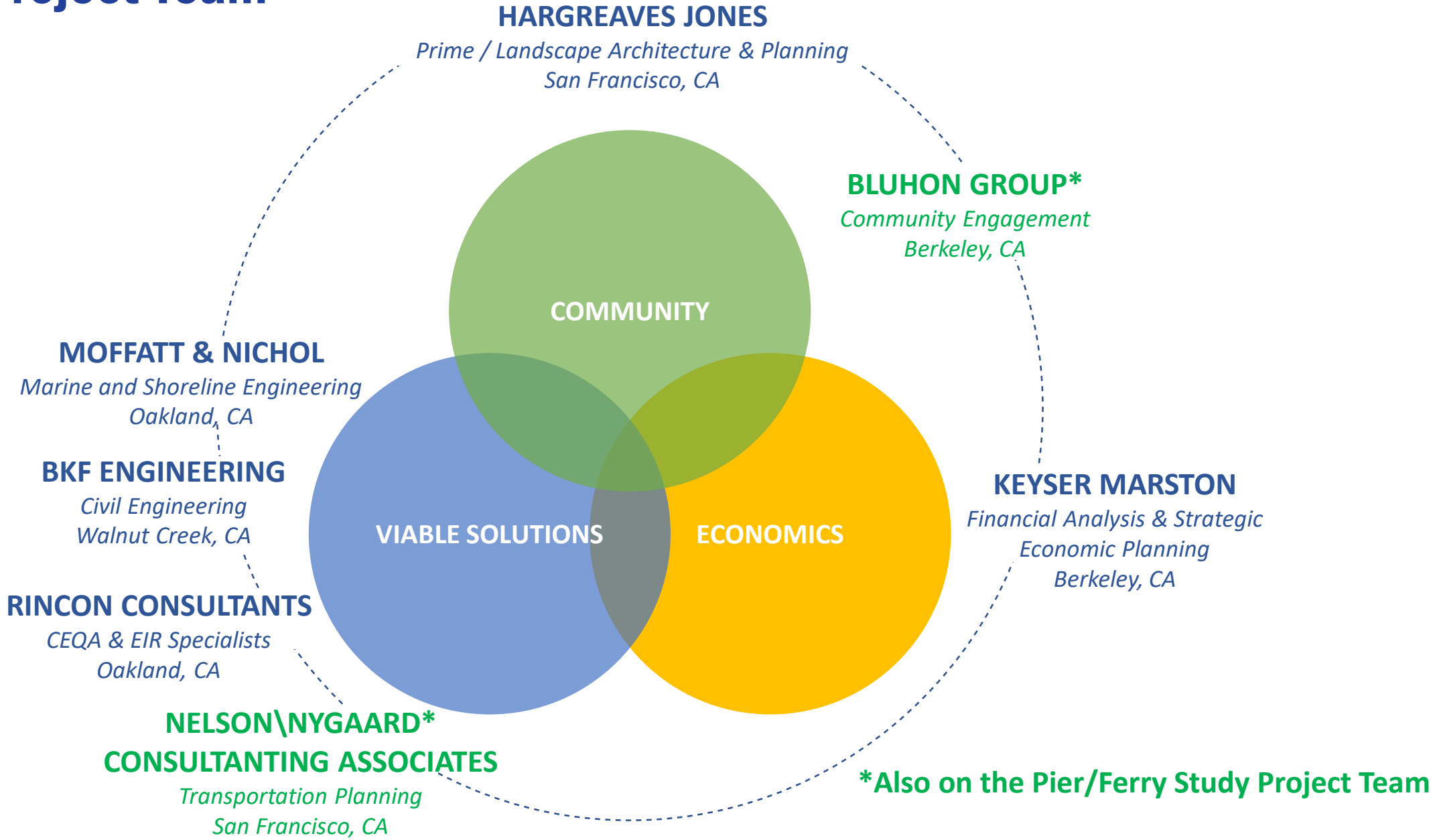


Future Infrastructure Costs
\$87.5M – \$131M

BMASP + Pier/Ferry Planning Study

- Introductions of Consultant Teams
- Project Timelines
- BMASP Overview
- Pier/Ferry Planning Study Overview

BMASP Project Team



BMASP Project Team

Hargreaves Jones

waterfront park expertise
over 30 waterfront projects
over 23 water bodies
master planning through
implementation



CRISSY FIELD
San Francisco, CA



QUEEN ELIZABETH OLYMPIC PARK
London, UK

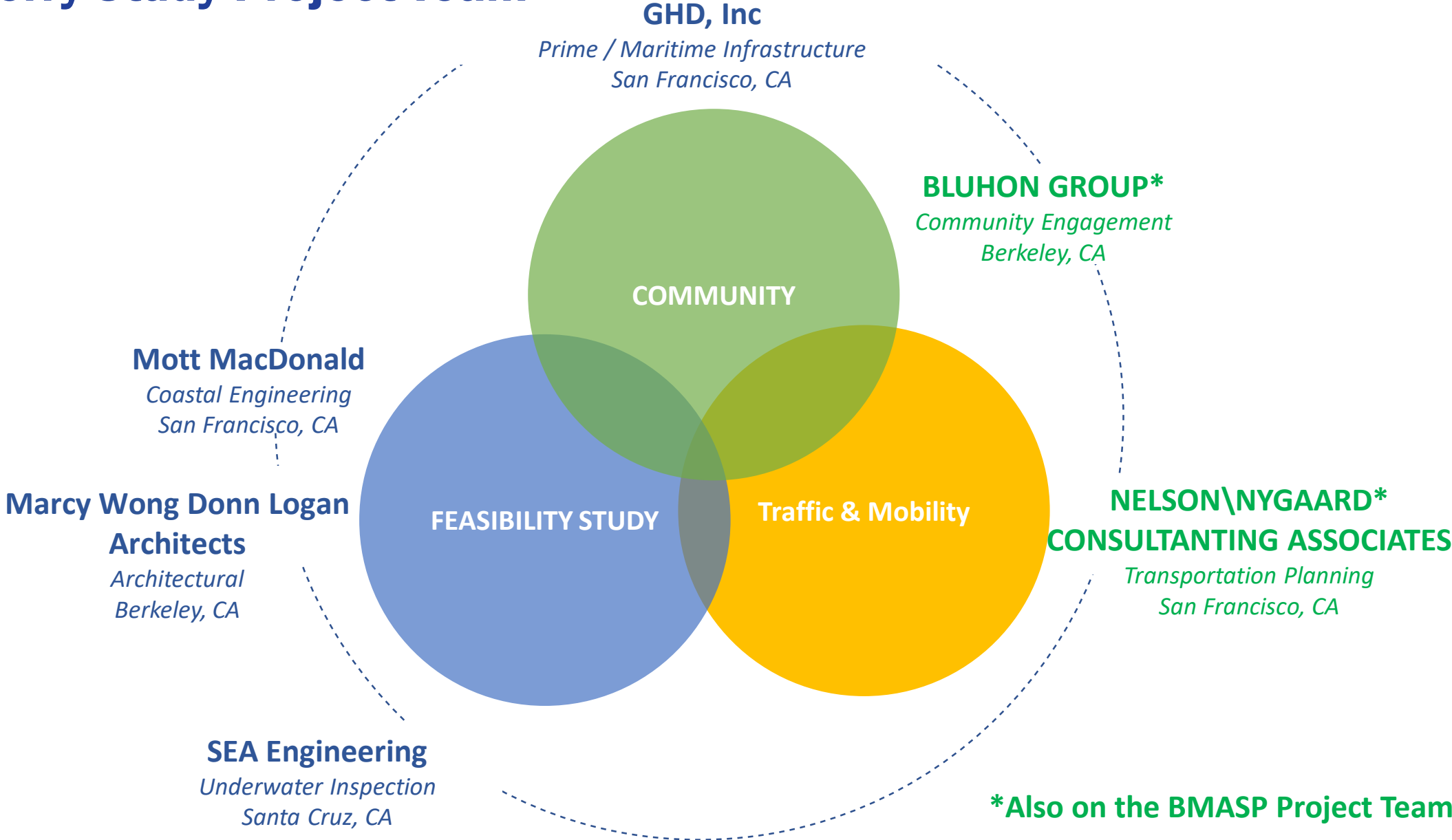


SOUTH POINTE PARK
Miami Beach, FL



SOUTH LAKE UNION PARK
Seattle, WA

Pier/Ferry Study Project Team





90+ *years* **in operation**
135+ *countries* **served**
200+ *offices* **worldwide**
\$2.3[ⓑ] *revenue* **2020**
5 *global* **markets**
10[Ⓚ] *people*
50+ *service* **lines**

↳ **Providing engineering, environmental,
advisory, architecture, digital and
construction services**

Pier/Ferry Study Project Team

A nighttime photograph of the San Francisco skyline. The city lights are reflected in the water. In the foreground, a ferry is docked at a pier. The sky is dark blue, and the buildings are illuminated with various lights, including the blue lights of the Transamerica Pyramid on the left.

San Francisco Bay Area

Water Emergency Transportation Authority

Kevin Connolly

Manager,
Planning & Development

Michael Gougherty

Senior Planner

Taylor Rutsch

Planner

WETA Route Map



ROUTE MAP

MORE INFO:
SANFRANCISCOBAYFERRY.COM



ROUTES AND SCHEDULES

Weekday and Weekend Service:

- Vallejo — San Francisco
- Alameda & Oakland — San Francisco

Weekday Commute Service:

- South San Francisco — Alameda & Oakland
- Harbor Bay — San Francisco
- Richmond — San Francisco

Special Service:

- Select off-peak and weekend trips to Pier 41 San Francisco from Vallejo, Alameda & Oakland
- Select connections to Mare Island from Vallejo — San Francisco route
- Seasonal service to the Giants at Oracle Park from Vallejo, Alameda & Oakland
- Seasonal service to the Warriors at Chase Center from Alameda & Oakland

THE BEST WAY TO
CROSS THE BAY.

WETA Strategic Plan

12 Vessels
7 Terminals
4 Routes
Peak Capacity 1,802
7,583 Daily Riders
5 Peak Hour Landings
at SF Ferry Bldg
\$33M Operating Budget



2016

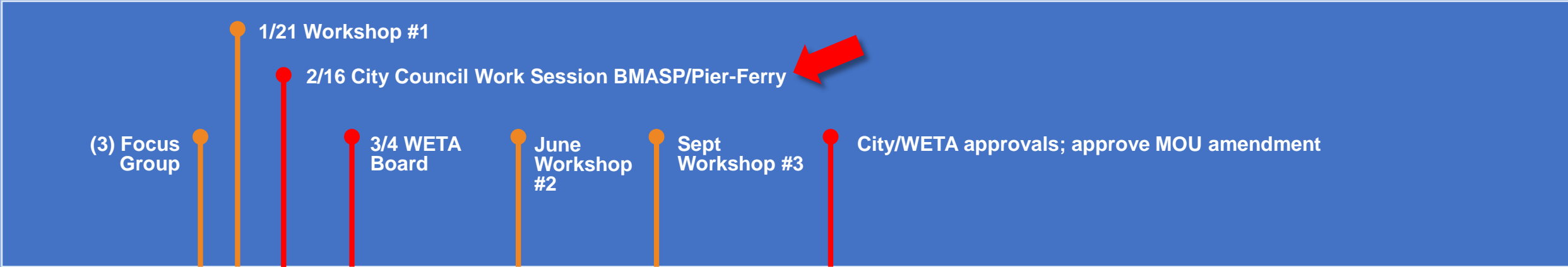
2035



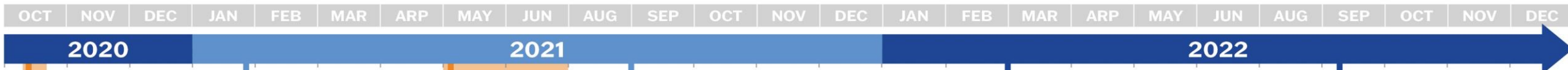
44 Vessels
16 Terminals
12 Routes
740% increase in Peak Capacity
5x the Daily Riders
25 Peak Hour Landings
\$144M Operating Budget

Pier/Ferry Study & BMASP Timelines

Pier-Ferry Study



BMASP



Meeting #1
 January 28, 2021
 Project Introduction
 Challenges &
 Conceptual Opportunities



Meeting #2
 Aug/Sept 2021
 Specific Plan Design
 and Financial Mode
 Options



Meeting #3
 Feb/Mar 2022
 Specific Plan
 Refinement
 Workshop



Meeting #4
 TBD 2022
 EIR Public Scoping
 Meeting

An aerial photograph of a coastal city and a large marina. The city is built on a hillside in the background, with a dense residential and commercial area. In the foreground, a large body of water contains a marina filled with numerous sailboats and yachts. A long, narrow pier extends into the water on the right side. The entire image has a blue tint. The text "BMASP Goals & Process" is overlaid in the center in a bold, white, sans-serif font.

BMASP Goals & Process

Develop a specific plan to set the Waterfront on a sustainable path.



achieve financial sustainability

- keep Marina Fund operational
- develop a viable financial model



support community needs

- Marina: slips, business, clubs, etc.
- Recreation and environmental stewardship



address infrastructure needs

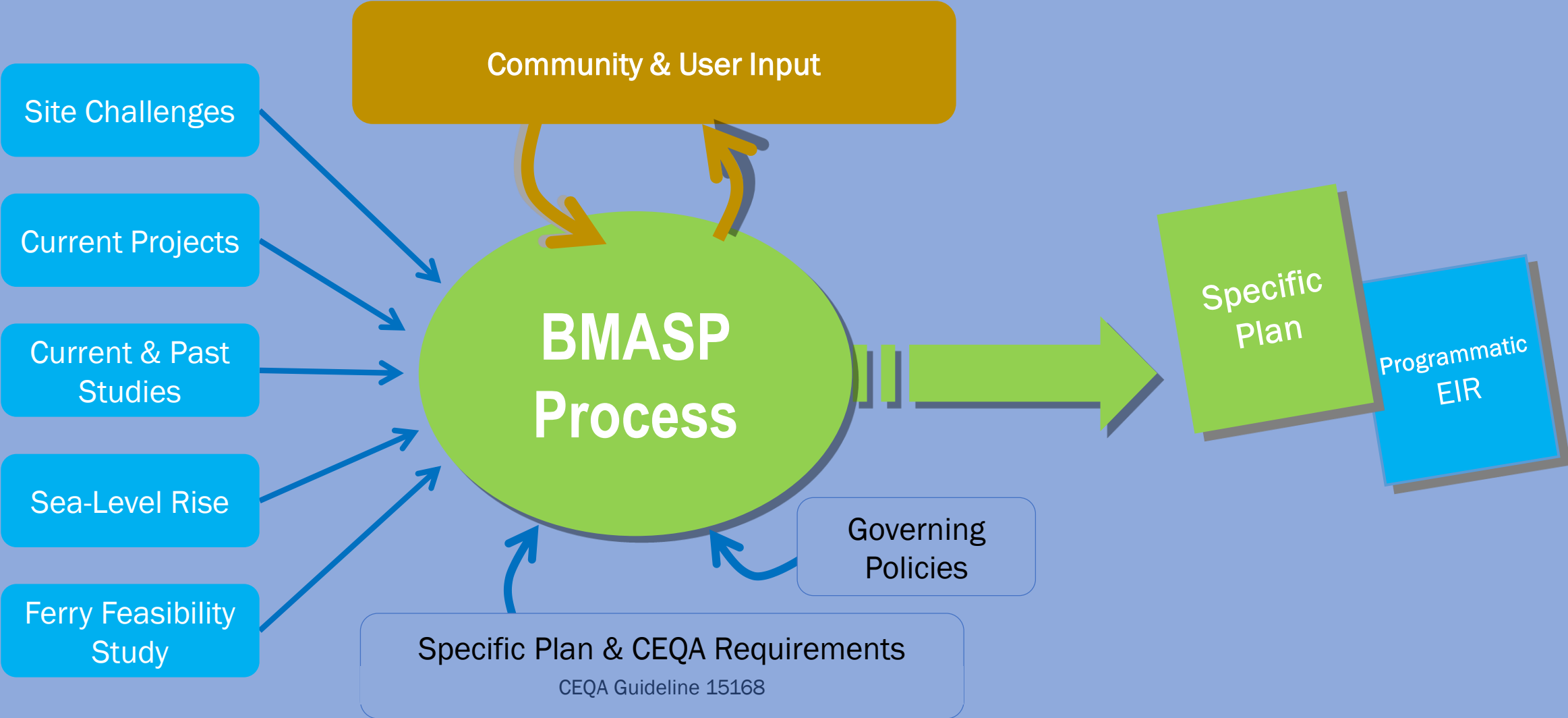
- prioritize capital projects
- Identify funding sources



adapt to climate change

- Assess SLR vulnerability
- Identify mitigation and adaptation measures

BMASP Process



BMASP - What we are working on - Baseline Evaluations

Existing Amenities and Operations Assessment

Includes:

- Market Demand Trend Analysis
- Informs future capital project planning process

Existing Infrastructure Assessment – Waterside and Landside Facilities

Includes:

- Cost Estimates for each capital projects
- Prioritize capital projects per importance to the Marina operation and Community Input

End Product = 5-year Capital Improvement Plans [Expenditure]

Marina Enterprise Fund Financial Assessment

Includes:

- Existing Marina Enterprise Fund Financial Analysis
- Revenue Generating Opportunities and Constraints Analysis
- Identify feasible solutions with Community Input to Alleviate Funding Gap

End Product = Implementation Strategy Memo [New Revenue Source(s)]



Community
Workshop #2
Aug/Sept 2021

Marina Case Studies (5)



Pillar Point Harbor



Alamos Bay Marina



Dana Point Harbor

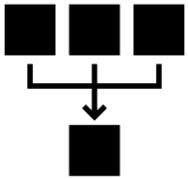


Former San Leandro Marina

San Francisco Marina



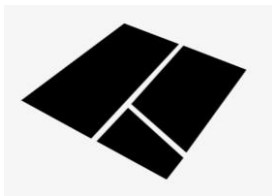
San Francisco | State Tidelands



Public Owner/Operator
City & County of San Francisco



667 marina slips



39 acres | water
19 acres | land



	Onsite
1	West Harbor
2	East Harbor
3	Marina Green
4	Yacht Clubs

	Offsite
A	Fort Mason
B	Crissy Field
C	Palace of Fine Arts
D	Chestnut St

San Francisco Marina Recent Capital Investment

Marina rebuild supported by higher fees, shift to larger slips

- \$27M renovation of West Harbor completed in 2013
 - Replaces & reconfigures docks and slips
- Phase 1 financed by DBW loans repaid through increased fee revenue
- Phase 2 will replace & reconfigure East Harbor docks and slips
 - Partially funded by PG&E settlement

	West	East
Slips	325	342
Renovation Year	2013	Not Completed
Avg. Slip Length	43'	28'
Slip Occupancy	98%	75%
30' Berth Rate	\$14.47/ft.	\$10.44/ft.
Annual Fees Per Slip	\$8,000	\$2,400

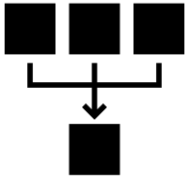


3.3X

Pillar Point Harbor



Half Moon Bay | State Tidelands



Public Owner/ Operator
San Mateo County Harbor District



369 marina slips



45 acres | water (marina)
+/-20 acres | land



	Onsite
1	Rec Marina
2	Comm. Marina
3	Pier/ Fisheries
4	Shops & Restaurants
5	Boat Launch

	Offsite
A	Harbor Village
B	HMB Brewing
C	Chowder House

Pillar Point's Special District Funding Model

Special district property tax provides flexibility to encourage diversity of uses

Special district owner/operator receives \$0.03/\$1 of county prop taxes

- Property taxes represent 2/3 of district revenues, help fund capital needs

Dedicated funding provides flexibility to encourage uses that generate modest direct revenues, but provides spinoff benefits, such as commercial fishing

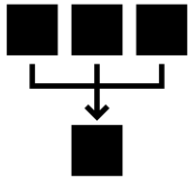
- Commercial fishing vessels occupy half of berths; 98% occupancy
- 3 whole fishery leases on pier (4 hoists)
- Fresh fish sales permitted off boats
- Draws visitors to restaurants & charter boats



Alamitos Bay Marina



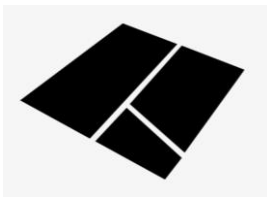
Long Beach | State Tidelands



Public Owner/Operator
City of Long Beach



1,646 marina slips



200 acres | water
10 acres | land



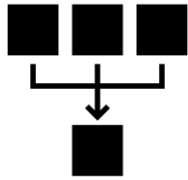
	Onsite
1	Yacht Clubs
2	Commercial Areas
3	Marinas
4	Marina Boatyard
	Water Taxi

	Offsite
A	New Coastal Mall
B	Existing Shopping Center

Dana Point Harbor



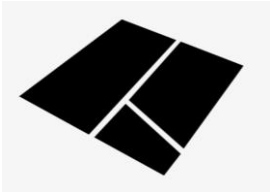
Dana Point | State Tidelands



Public Owner/Private Operator
Orange County



2,254 marina slips



170 acres | water
107 acres | land



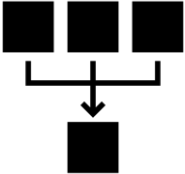
	Onsite
1	Marinas
2	Hotel/Commercial
3	Yacht Club
4	Shipyard
5	Ocean Institute

	Offsite
A	Hotels
B	State Beach

Former San Leandro Marina



San Leandro



Formerly Public Owner/Operator
City of San Leandro



462 marina slips (to be dismantled)



23 acres | water (marina)
37 acres | land



	Onsite
1	Marina
2	Pier/ Yacht Club
3	Hotel/ Commercial
4	Boat Launch

	Offsite
A	City Golf Course
B	Marina Park

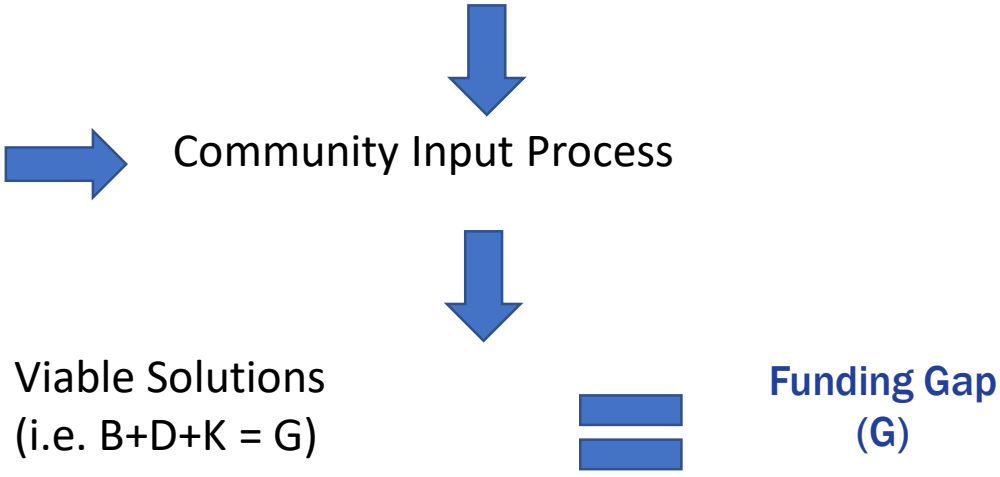
Case Study Reflections



Explore potential solutions for new revenue generation

Potential New Facilities	
A	Additional Hotel
B	Restore Berkeley Pier with Regional Ferry Service
C	Restaurant
D	Boat Slip Reconfiguration
E	New Businesses or Activities
F	Special Events
G	Event/Party Areas
H	Fish Market/Commercial Fishing Amenities
I	Recreation Businesses

Potential Fees, Taxes, Bonds	
A	Parking Fee
B	Vehicle Entrance Fee
C	Special Assessment Tax
D	Infrastructure Bond Measures



Potential Economic Benefits of Ferry Service by Land Use

Hotel	Retail	Food & Beverage	Recreation
<ul style="list-style-type: none">• Generate new or extended stays• Enhance event revenue• Attract new hotel	<ul style="list-style-type: none">• Capture “grab & go” commuter spending• Support growing West Berkeley work force• Attract new retail	<ul style="list-style-type: none">• Capture weekday commuter spending• Capture recreational weekend/evening spending• Attract new uses	<ul style="list-style-type: none">• Draw visitors from across the Bay• Gain exposure to outbound locals• Join a network of regional destinations

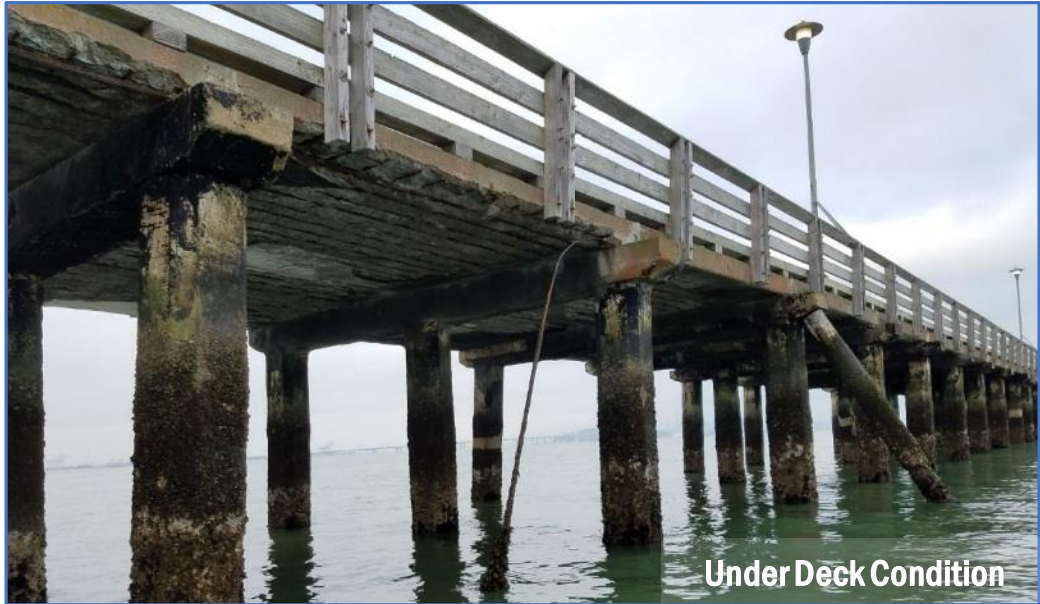
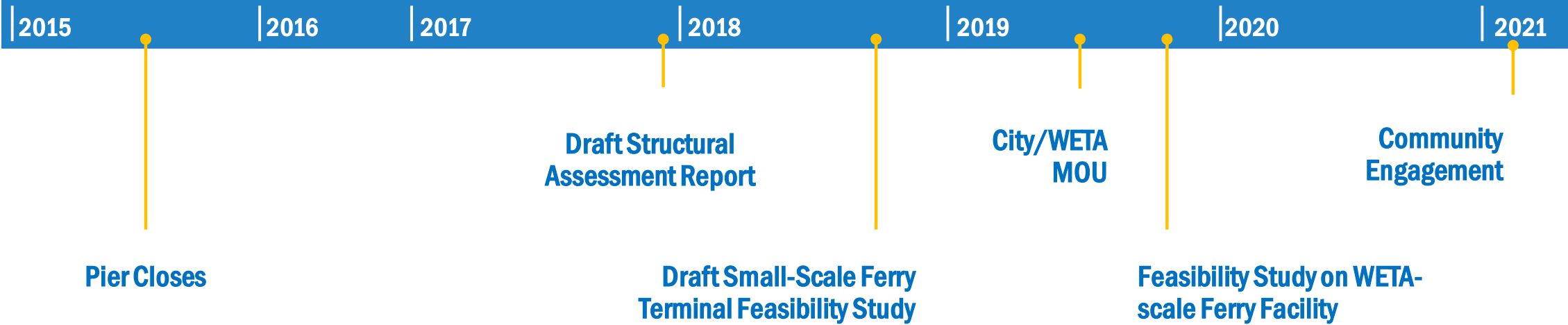
An aerial photograph of the Berkeley Pier/Ferry Facility, showing a large marina filled with sailboats and a cityscape in the background. The image is overlaid with a semi-transparent blue filter. The title text is centered in the middle of the image.

Berkeley Pier/Ferry Facility Planning Study

Multi-use Pier – Recreational Placemaking

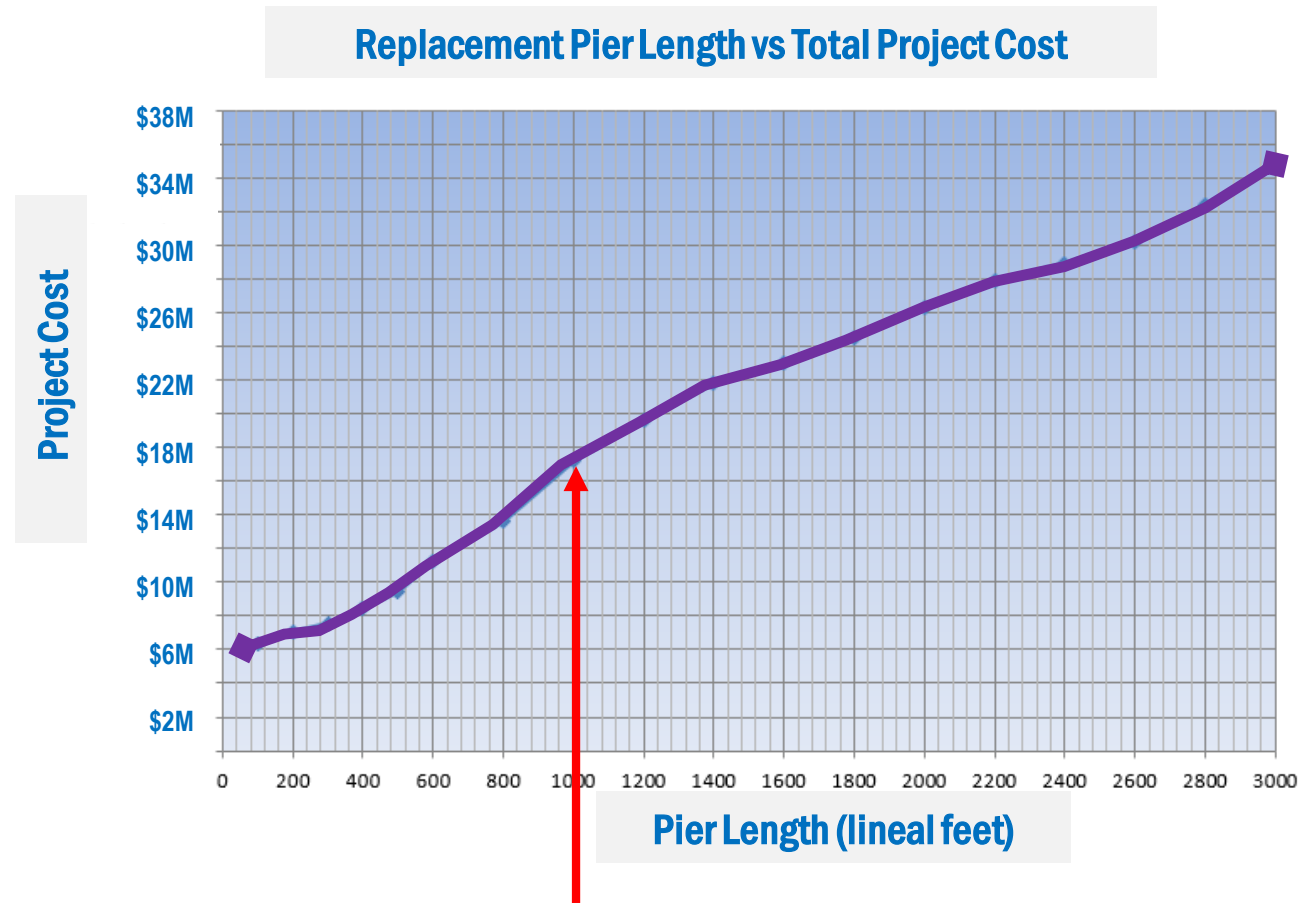


Pier Structural Assessment – Project History



Pier Alternatives – Repair or Replace

	Project Cost Range (3,000 LF Pier)
Repair (no seismic)	\$20M to \$30M
Repair w/ Seismic Strengthening	\$35M to \$55M
New Pier w/ Seismic	\$25M to \$35M

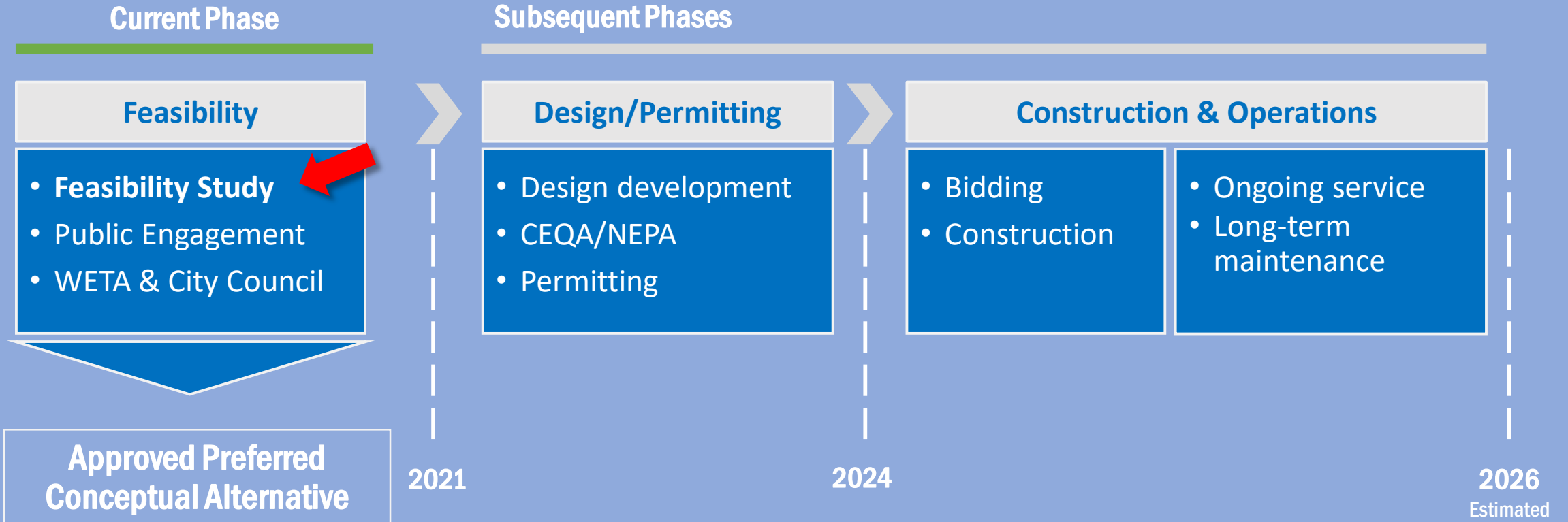


i.e. ~\$17M for a 1,000 LF new pier



Phases of the MOU

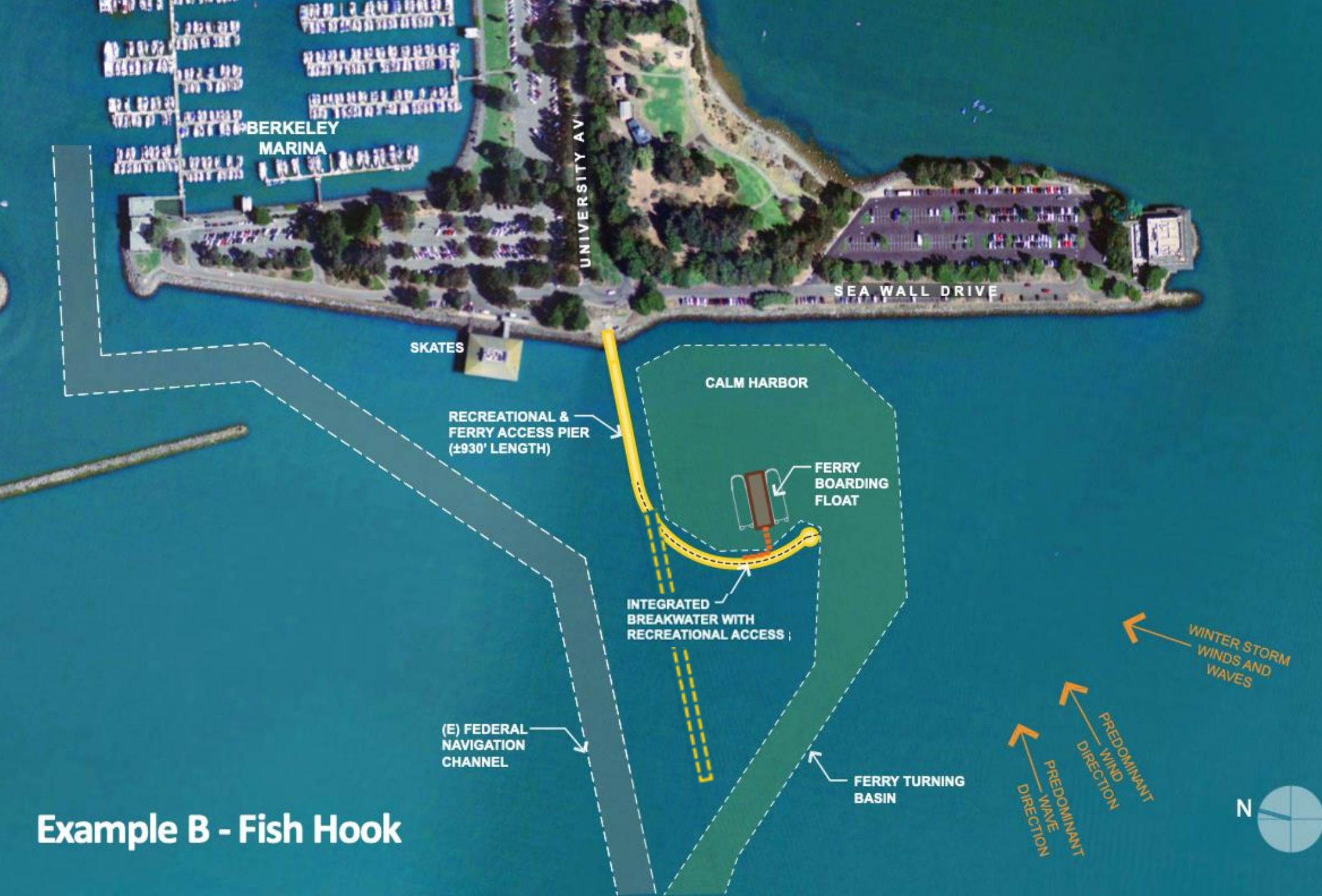
WATER EMERGENCY
TRANSPORTATION AUTHORITY



Note: MOU may be terminated at any phase upon mutual agreement.



Example A - Detached Breakwater



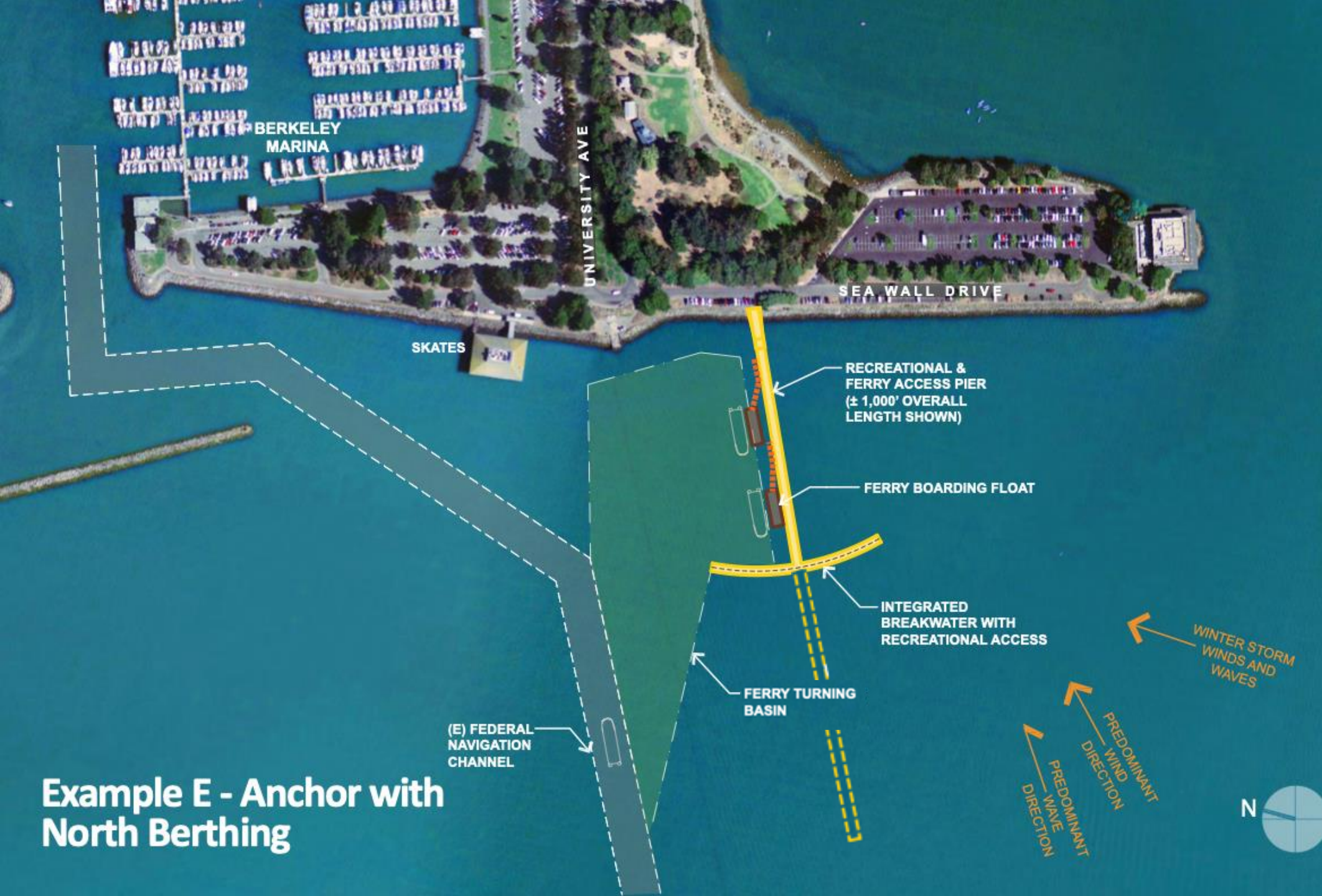
Example B - Fish Hook



Example C - Northside Berthing with Extension



Example D - Southside Berthing



Example E - Anchor with North Berthing

Parking & Mobility Considerations

1

Develop baseline travel mode share for ferry



On a typical day, how many passengers would use each travel mode to get to/from ferry?

2

Compare mode share to existing infrastructure



How many ferry riders could the Waterfront support with existing parking, transit, multimodal facilities?

3

Consider supportive programs & enhancements



What programs & enhancements would support non-drive-alone travel & improve access to the Waterfront?

In Process

Parking & Mobility Considerations

Initial Findings:

- City/WETA goal is to accommodate ferry service with 250 spaces.
- Parking management strategies could accommodate many spaces in existing lots.
- Initial target of 60% ferry riders to arrive by bike, walking, transit, carpooling and other shared travel modes.



Upcoming Public Input Opportunities

- Online Questionnaire at project website
- Project email: bmasp@cityofberkeley.info
- Community Workshops #2
 - Pier/Ferry Planning Study – targeted for June 2021
 - BMASP - targeted for Sept 2021

Council Worksession Discussion Topics

#1 What revenue-generating solutions/funding mechanisms should be studied in greater depth and evaluated for feasibility at the Berkeley Waterfront?

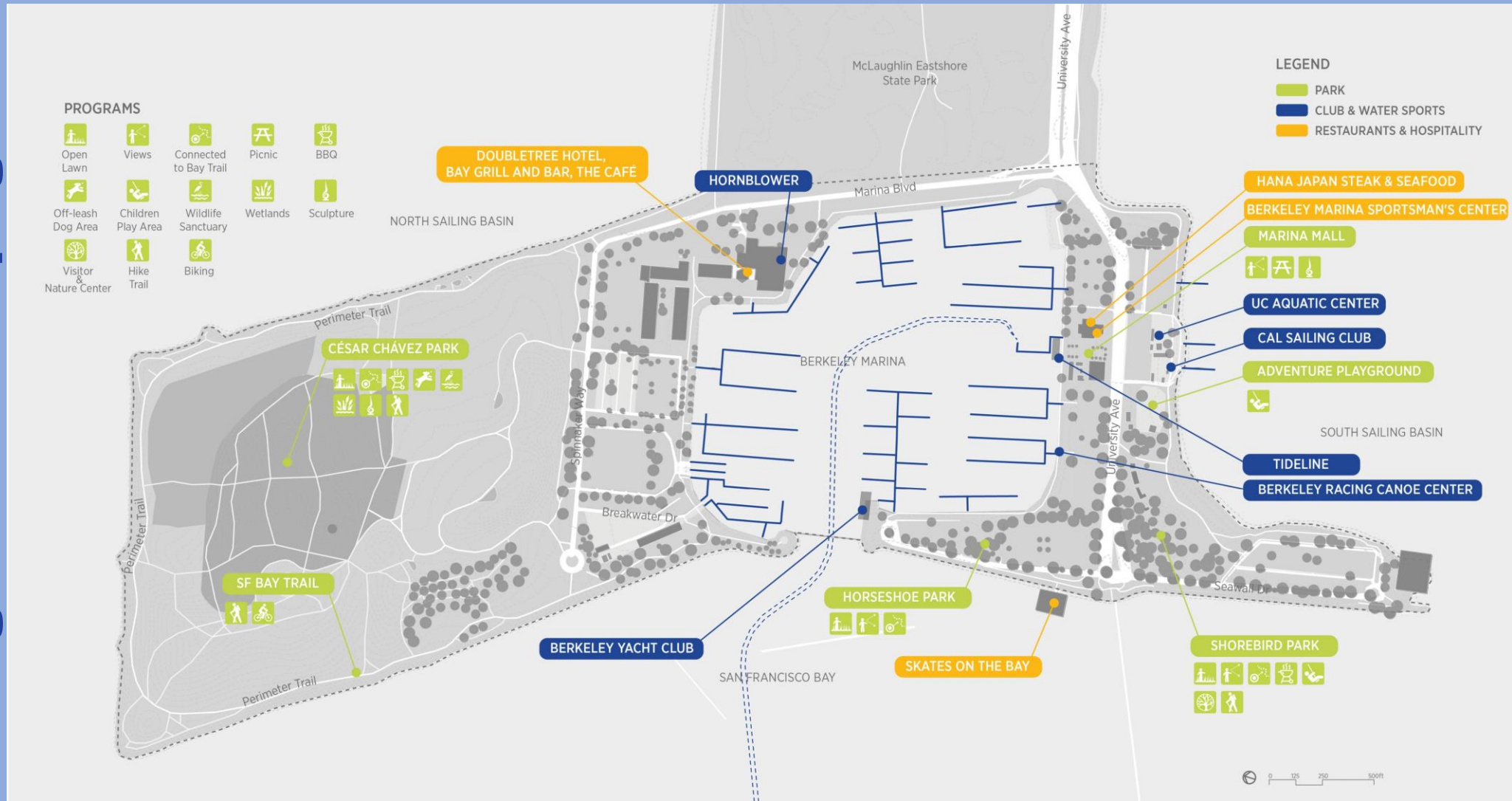
	Potential New Facilities
A	Additional Hotel
B	Restore Berkeley Pier with Regional Ferry Service
C	Restaurant
D	Boat Slip Reconfiguration
E	New Businesses or Activities
F	Special Events
G	Event/Party Areas
H	Fish Market/Commercial Fishing Amenities
I	Recreation Businesses
J	<i>Others?</i>

	Potential Fees, Taxes, Bonds
A	Parking Fee
B	Vehicle Entrance Fee
C	Special Assessment Tax
D	Infrastructure Bond Measures
E	<i>Others?</i>

Council Worksession Discussion Topics

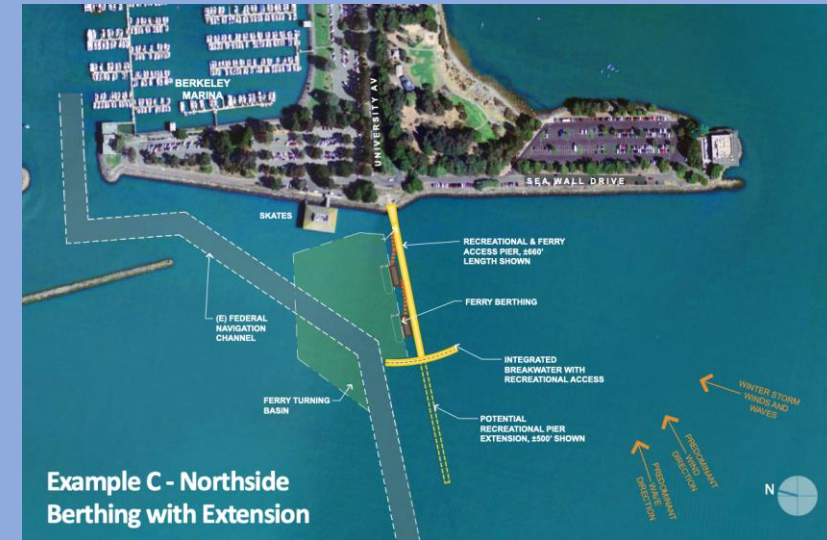
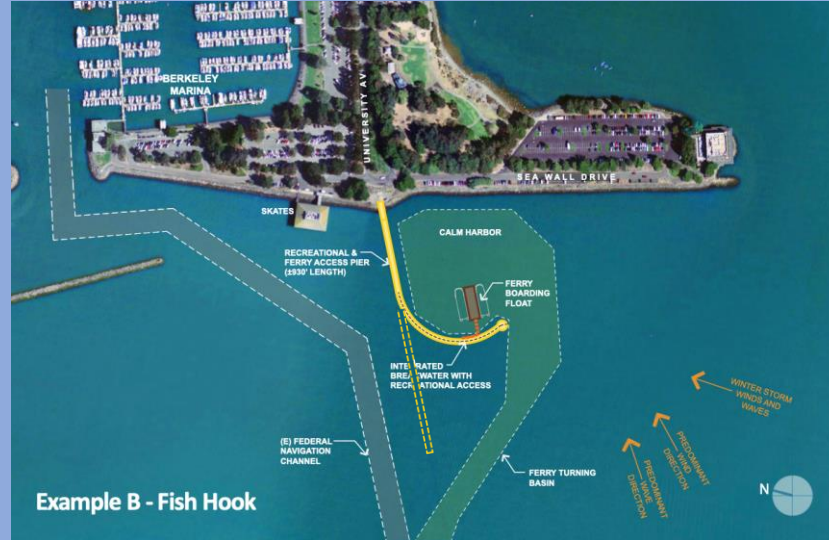
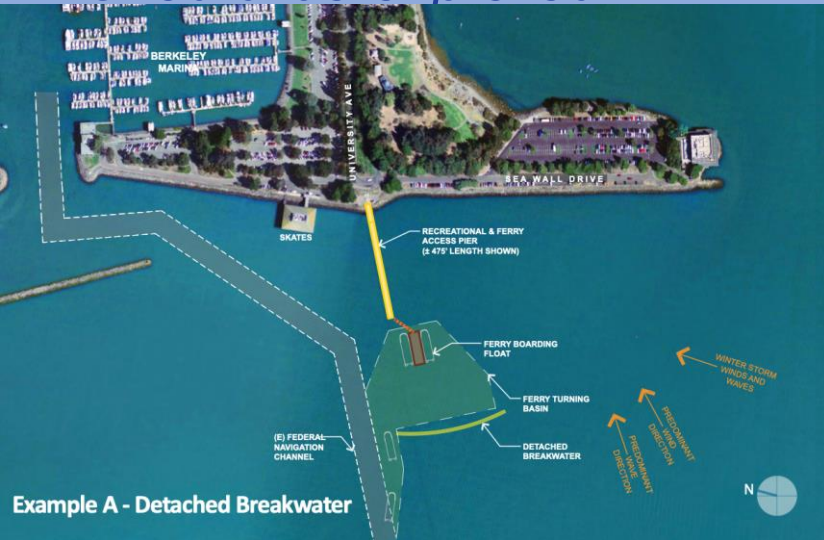
#2 What kind of uses/amenities and locations should be evaluated?

existing facilities and programs



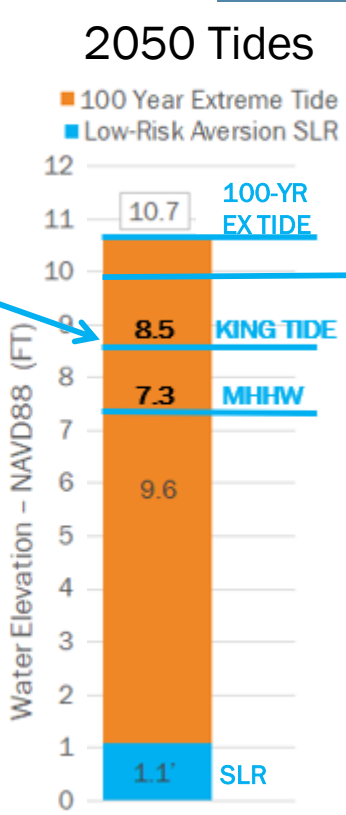
Council Worksession Discussion Topics

#3 What waterside and landside access concepts for a Berkeley Pier/Ferry terminal should be explored?

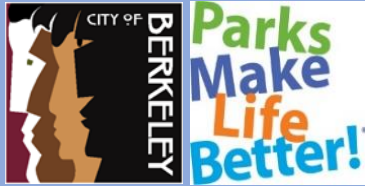


2050 Sea Level Rise (SLR) Impacts

- 2019 Draft Study
- Berkeley Marina less affected
- Shoreline: +10 FT NAVD88
- 2050 SLR (+1.1 FT)
 - 17% Likely to Occur
- Waves make a difference



Supporting Policies & Studies



WATER EMERGENCY
TRANSPORTATION AUTHORITY

City of Berkeley

Policy:

- *City General Plan Updates (2001)*
- *Climate Action Plan (2012)*: Sustainable transit
- *Local Hazard Mitigation Plan (2019)*: High priority action for emergency response

Studies:

- *Berkeley Municipal Pier Structural Assessment*
- *Small-scale Ferry Transportation Feasibility Study on Waterside Improvements*

Water Emergency Transportation Authority

Policy:

- *System Expansion Policy (2015)*: Standards & process for new ferry services.
- *Strategic Plan (2016)*: Identifies Berkeley as a near-term project.
- *Emergency Response Plan (2016)*: Sets WETA role in provision of emergency water transportation.
- *Plan Bay Area 2050 (pending)*: Includes Berkeley ferry service as 'Regionally Significant Project.'