Presentations for August 17, 2022 Board of Directors Meeting
Item 4: Business Plan Workshop
Board Workshop #1
August 17, 2022
bayferry2050.org
WETA 2050 Service Vision & Business Plan


Business Plan: “The How”
Agenda

**Background**
- Overview
- Initial stakeholder outreach
- Focus areas

**Outreach**
- Advisory Groups
- Working Groups
- Survey results

**Service vision development**
- Network expansion concepts
- Scenario planning process
- Futures

**Financial capacity**
- Baseline scenario financial analysis
Goals for today

<table>
<thead>
<tr>
<th>Update</th>
<th>Share</th>
<th>Inform</th>
<th>Discuss</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer outreach activities</td>
<td>Stakeholder and advisory group feedback</td>
<td>Initial scenario's based on discussions</td>
<td>Range of service options</td>
</tr>
<tr>
<td>Initial service, financial analysis</td>
<td>Website survey</td>
<td>Financial capacity analysis</td>
<td>Range of possible futures</td>
</tr>
<tr>
<td></td>
<td>Future work program</td>
<td>Integration of service vision with emergency response, environmental stewardship</td>
<td>Future outreach and stakeholder participation</td>
</tr>
</tbody>
</table>
Background
# Project team

<table>
<thead>
<tr>
<th>WETA Board Subcommittee</th>
<th>WETA Staff</th>
</tr>
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<tbody>
<tr>
<td><strong>Fehr &amp; Peers</strong></td>
<td>Transportation Planning</td>
</tr>
<tr>
<td><strong>civic makers</strong></td>
<td>Public Outreach</td>
</tr>
<tr>
<td><strong>AECOM</strong></td>
<td>Emergency Response</td>
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<tr>
<td><strong>NNC Partners</strong></td>
<td>Financial Planning</td>
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<tr>
<td><strong>Elliott Bay Design Group</strong></td>
<td>Naval Architecture</td>
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<tr>
<td><strong>TBD</strong></td>
<td>Management</td>
</tr>
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</table>
Initial stakeholder outreach

Workshop pre-planning

SEPTEMBER – OCTOBER 2021

15  Stakeholder interviews
5   Focus groups
77  Survey responses

Stakeholder workshop

OCTOBER 22, 2021

44  Participants
6   Focus areas for a new service vision discussed
Focus areas

- Regional ferry network
- Emergency response
- Environmental stewardship
- Community connections
- Financial capacity
- Organizational capacity
Project timeline & milestones
Stakeholder & public outreach
Why provide ferry service?

<table>
<thead>
<tr>
<th>Grow transit ridership</th>
<th>Connect job and activity centers</th>
<th>Complement the region’s transit system</th>
<th>Support economic development</th>
</tr>
</thead>
<tbody>
<tr>
<td>An opportunity to move more people across the region’s traffic bottlenecks.</td>
<td>Connect communities to jobs and activities that are not easily reached via driving.</td>
<td>Fill gaps in the region’s transit system and emergency response needs at pinch points.</td>
<td>Support transit-oriented development and diversify access to economic opportunities.</td>
</tr>
</tbody>
</table>
Creating a competitive ferry service

- **Frequency**
  Ferries offer riders choices and flexibility

- **Service hours**
  Ferries are running when riders need them

- **Ride quality**
  Ferries enable riders to relax, multitask, and travel comfortably

- **Travel time**
  Ferries save people time compared to other modes of travel

- **Fares**
  Ferries are a reasonable cost compared to other modes of travel
Navigating constraints

<table>
<thead>
<tr>
<th>Market competitiveness</th>
<th>Terminal access</th>
<th>Cost effectiveness</th>
<th>Environmental sensitivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not all markets can support ferry service due to demand, travel times, and operational constraints.</td>
<td>Barriers to terminal access can limit the usefulness of ferry service.</td>
<td>Ferry service can be more expensive to provide on a per-passenger basis than other modes of transit.</td>
<td>Many areas of the Bay are not suitable for ferry service due to wetlands, tides, and water depths.</td>
</tr>
</tbody>
</table>
What kinds of markets could WETA serve?

**Established transit markets**
A regional market that already has established rail or bus ridership

**Established auto market**
A regional market with substantial auto travel but limited transit ridership

**New markets**
A regional market with very little existing travel but potential for induced demand

**Local markets**
A local market for short distance service
Advisory groups

**Business Advisory Group**
- Alameda Chamber of Commerce
- Bay Area Council
- Berkeley Chamber of Commerce
- Chamber San Mateo County
- East Bay Economic Development Alliance
- Genentech
- Google
- Kaiser Permanente
- Oakland Chamber of Commerce
- Richmond Main Street
- Salesforce
- SAMCEDA
- San Francisco Chamber of Commerce
- Silicon Valley Leadership Group
- Solano Economic Development Corporation
- Southern Land Company
- Treasure Island Community Development
- UC Berkeley

**Community Advisory Group**
- Alameda Point Collaborative
- Bike East Bay
- Greenbelt Alliance
- One Treasure Island
- SF Port Advisory Committees
- Seamless Bay Area
- Sierra Club San Francisco Bay
- SolTrans Public Advisory Committee
- SF Transit Riders
- SPUR
- Transport Oakland
- Urban Tilth
- Vallejo Project
- Targeted outreach to additional CBOs
Business Advisory Group

First meeting on June 16, 2022

- 18 representatives
- Chambers of commerce
- Economic development alliances
- Large businesses
- Employers from across the Bay Area

Network expansion preferences

- Prioritize ridership over coverage
- Focus on all-day service versus peak-only service
- Prioritize markets with existing, seamless first and last mile connections
- No preference between complementary and overlapping markets

Uncertainty of potential futures

- Local and regional transit funding
- Commute patterns
- Earthquake resilience
Community Advisory Group

First meeting on July 13, 2022

- 22 representatives
- Community-based organizations
- Transit and environmental advocates
- Interested community members from across the Bay Area

Network expansion preferences

- Prioritize ridership over coverage
- Focus on all-day service versus peak-only service
- Advocated for ferry service in their respective markets
- Slight general preference toward overlapping markets

Uncertainty of potential futures

- Local and regional transit funding
- The environment
- Land use policy
Bay Ferry 2050 website engagement

- **2,297 microsite visitors since May 2022**
- **91% of visitors accessed the site directly**
- **3% signed up for periodic project updates**
- **9% found the site through social media and other channels**
Online priorities poll

1,048 completed submissions

Between July 12 and August 11, asked Bay Area community members to respond to 7 questions, polling general sentiment about barriers to using ferry service, how to prioritize ferry expansion, and when ferry service should be offered.
How often do you use the ferry?

- 41% A few times per year
- 20% A few times per month
- 19% A few times per week
- 12% Never
- 8% Daily
- 8%
What are the primary barriers that prevent you from using the ferry more often?

- **526** Schedule issues – Ferry doesn’t run when I need to travel
- **429** Coverage issues – Ferry doesn’t take me where I need to go
- **243** None
- **136** Too expensive
- **49** Too slow
How should we prioritize expanding ferry service?

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>AVG. RANK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routes that expand ferry connections to new parts of the region</td>
<td>2.29</td>
</tr>
<tr>
<td>Routes that bring in the most riders</td>
<td>2.36</td>
</tr>
<tr>
<td>Routes that are cost effective to operate</td>
<td>2.65</td>
</tr>
<tr>
<td>Routes that serve disadvantaged communities</td>
<td>2.70</td>
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</table>

1 = most important, 5 or 4 = least important
What kind of trips should ferries serve?

<table>
<thead>
<tr>
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<th>AVG. RANK</th>
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<tbody>
<tr>
<td>Work commutes</td>
<td>2.31</td>
</tr>
<tr>
<td>Leisure and sightseeing trips</td>
<td>3.12</td>
</tr>
<tr>
<td>Travel to transit hubs, such as airports, for longer trips</td>
<td>3.14</td>
</tr>
<tr>
<td>Travel to special events (e.g., SF Giants games)</td>
<td>3.19</td>
</tr>
<tr>
<td>Daily trips for errands and appointments</td>
<td>3.24</td>
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</table>

1 = most important, 5 or 4 = least important
When should we prioritize providing service?

<table>
<thead>
<tr>
<th>OPTIONS</th>
<th>AVG. RANK</th>
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</thead>
<tbody>
<tr>
<td>During peak commute hours (6-9am, 4-7pm) and weekends (Saturdays and Sundays), with less service at other times</td>
<td>2.27</td>
</tr>
<tr>
<td>During peak commute hours (6-9am, 4-7pm) with less frequent service during midday, evening, and weekends</td>
<td>2.35</td>
</tr>
<tr>
<td>Throughout the day on weekdays and weekends without extra peak commute period trips</td>
<td>2.55</td>
</tr>
<tr>
<td>During special events</td>
<td>2.83</td>
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</table>

1 = most important, 5 or 4 = least important
County Working Groups

**Alameda County**
- Alameda County Transportation Authority
- Alameda
- Berkeley
- Oakland
- San Leandro

**Solano County**
- Solano Transportation Authority
- Vallejo
- Benicia

**City and County of San Francisco**
- San Francisco County TA
- SFMTA
- Port of SF
- TIDA
- SF Mayor’s Office

**San Mateo County**
- San Mateo County TA
- SamTrans
- South San Francisco
- Redwood City
- Foster City
- Port of Redwood City

**Contra Costa County**
- Contra Costa Transportation Authority
- WCCTAC
- Richmond
- Hercules
- Martinez
- Antioch
County Working Groups: Common themes

**Match service to demand**

Be fiscally responsible. Invest in high-quality service on the highest demand routes.

Service to new markets with moderate or low demand can utilize new service profiles with small vessels or third-party operators.

**Emergency response and regional gaps**

Ferry service can fill existing gaps in the regional transit network and act as an important link across the Bay in the event of bridge closures.

1) San Mateo Bridge
2) Carquinez Bridge

**Equity: Fares, schedules, and first/last mile**

How will WETA design a more equitable service for more than just white-collar workers?

1) Fares should remain on par with other regional transit.
2) Schedules should reflect needs of a more diverse profile of riders.
3) Need more robust first/last mile connections at ferry terminals for transit-dependent riders.
County Working Groups: Other feedback

- Ferry service as an economic development tool (Sol, CC, Ala)
- Use of pre-pandemic assumptions for long range planning (SF)
- Threat of sea level rise is a deterrent to shoreline development (SM, CC)
- Some markets will remain white-collar commuter focus (SM)
- Strong desire for ferry service to new markets despite low demand (Sol, CC)
Outreach recap

**Blended approach**
High-ridership routes vs. cover new markets

**Prioritize access**
Terminal access and first/last mile connections

**All-day service**
Focus on equity

**Lower-demand**
Small vessels or private operators for lower demand routes

**Bridge corridors**
New transit connections and emergency response resiliency

**Online survey**
Prioritize commute & weekend trips + consistent with other feedback
Service vision development
2050 network expansion concepts

- **Current Network**: WETA’s current network as is
- **High Growth**: Substantial expansion of routes and terminals across the region
- **Moderate Growth**: Additional service expansion with some new terminals and routes
- **Plan Bay Area Baseline**: Expansion as envisioned in Plan Bay Area
Current Network

Current WETA system (2022)
- 10 Terminals
- 6 Routes

Special event service to AT&T Park and Chase Center not shown on map.
Plan Bay Area Baseline

Expansion as envisioned in Plan Bay Area
• 13 Terminals
• 12 Routes
Moderate Growth

Additional service expansion with some new terminals and routes

- 18 Terminals
- 17 Routes

- Treasure Island
- Richmond
- Alameda
- Oakland
- South San Francisco
- Redwood City
- Larkspur
- Martinez
- Hercules
- Vallejo
- Pier 41
- Ferry Building
- Hunters Point
- Mission Bay
- South San Francisco
- Mare Island
- Pier 41
- Mission Bay
- Special event service to AT&T Park and Chase Center not shown on map.
High Growth

Substantial expansion of routes and terminals across the region

- 21 Terminals
- 29 Routes

Special event service to AT&T Park and Chase Center not shown on map.
# Network concept summary

<table>
<thead>
<tr>
<th>Network concept</th>
<th>Terminals</th>
<th>Routes</th>
<th>Vessels</th>
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<tbody>
<tr>
<td>Current Network</td>
<td>10</td>
<td>6</td>
<td>18</td>
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<tr>
<td>Baseline</td>
<td>13</td>
<td>12</td>
<td>29</td>
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<tr>
<td>Moderate Growth</td>
<td>18</td>
<td>17</td>
<td>44</td>
</tr>
<tr>
<td>High Growth</td>
<td>21</td>
<td>29</td>
<td>61</td>
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</table>
Scenario planning process

Planning for uncertainty

WETA and its peer transit agencies face an increasingly uncertain future. Previous trends and assumptions are not necessarily a reliable guide of what may happen next.

Considering different futures

The Business Plan will consider scenarios for network expansion, travel behavior, terminal conditions, and service conditions. The combination of these scenarios will form distinct futures.

Developing a resilient vision

The scenario planning process will help inform a resilient service vision that can succeed under a range of potential futures.

For other recent examples of scenario planning in transportation plans, see Plan Bay Area 2050 & Caltrain Business Plan
# Scenario analysis

## Network Expansion Concepts

<table>
<thead>
<tr>
<th>Futures</th>
<th>(#1)</th>
<th>(#2)</th>
<th>(#3)</th>
<th>(#4)</th>
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<tbody>
<tr>
<td>Baseline</td>
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<td></td>
</tr>
<tr>
<td>Moderate Growth</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>High Growth</td>
<td></td>
<td></td>
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</table>

2050 Scenarios - Networks evaluated against a range of futures
Futures

PEAK PERIOD SERVICE

Throttle Back

Full Steam Ahead

LASTING CHANGES

TRAVEL BEHAVIOR

Tack to the Wind

Chart a New Course

TRANSIT POLICY

ALL DAY SERVICE

PRE-PANDEMIC EXPECTATIONS

Full Steam Ahead

Chart a New Course

Throttle Back

Tack to the Wind

ALL DAY SERVICE

LASTING CHANGES

TRAVEL BEHAVIOR

PRE-PANDEMIC EXPECTATIONS

TRANSIT POLICY

Futures
## Scenario analysis

<table>
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<tr>
<th>Network Expansion Concepts</th>
<th>Futures</th>
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<tbody>
<tr>
<td></td>
<td>Full Steam Ahead</td>
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<tr>
<td>Baseline</td>
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<tr>
<td>Moderate Growth</td>
<td></td>
</tr>
<tr>
<td>High Growth</td>
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</table>

### 2050 Scenarios – Networks evaluated against a range of futures
Financial capacity analysis
Financial capacity analysis overview

Key question
The financial capacity analysis presents WETA’s capacity to fund its ongoing current operations along with planned enhancements and expansion.

Data sources
Service assumptions incorporated in Plan Bay Area 2050 and WETA Short-Range Transit Plan form the basis of the analysis.
Financial capacity analysis approach

**Known current revenue sources for operations**

- Federal formula funding (various programs)
- RM1 2% and 5% (flexible funds)
- Measure BB
- AB664 Bridge Tolls

**Known current sources for vessel and terminal repair and replacement**

- Fare Revenue
- State Revenue Assistance
- RM2
- RM3
- RM1-5%
- Measure J (expires FY28)
- COVID Relief

Current analysis does not include capital expansion investment costs or additional repair costs associated with those investments
Financial capacity analysis assumptions

**Service assumptions derived from existing plans**

1) **Existing**
   - Continuation of Current Service Levels

2) **Plan Bay Area Baseline**
   - SRTP enhancements and introduction of planned new services - TI, Mission Bay, Berkeley, Redwood City

**Service scenarios developed in Bay Ferry 2050**

3) **Moderate Growth**
   - Increase beyond Plan Bay Area assumption

4) **High Growth**
   - Highest level of investment and service
Plan Bay Area Baseline

Expansion as envisioned in Plan Bay Area

- 13 Terminals
- 12 Routes
Without RM3...

We assume RM3 is available in FY25

$11m deficit without RM3 in FY25

$653 cumulative deficit without RM3

All planned service assumptions presented assume RM3 availability in FY25

Without RM3, operating deficits would commence in FY 2025 starting with an $11 million need in that year

Cumulative deficit in the baseline assumption is that RM3 provides $653 million in operating funds needed to run current service in the future
## Service assumption financial capacity

### Millions

<table>
<thead>
<tr>
<th>Expenses &amp; shortfall</th>
<th>Existing Network</th>
<th>Plan Bay Area Baseline</th>
<th>Moderate Growth</th>
<th>High Growth</th>
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<tbody>
<tr>
<td>Operating expenses</td>
<td>$2,579</td>
<td>$4,659</td>
<td>TBD</td>
<td>TBD</td>
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<tr>
<td>Operating shortfall</td>
<td>($18)</td>
<td>($1,062)</td>
<td>TBD</td>
<td>TBD</td>
</tr>
<tr>
<td>First year of shortfall</td>
<td>FY2045</td>
<td>FY2034</td>
<td>TBD</td>
<td>TBD</td>
</tr>
</tbody>
</table>

Analysis does not include electrification or capital repair and replacement expenses.
Next step: Full evaluation of Network Expansion Concepts

1. Estimate operating expenses and revenues
2. Identify capital investment costs and revenues
3. Identify repair and replacement costs of new capital
4. Further analyze expansion scenario repair and replacement costs
THANK YOU

Bay Ferry 2050 microsite
bayferry2050.org

WETA staff contacts
Mike Gougherty Gougherty@watertransit.org
Gabriel Chan Chan@watertransit.org
MV Dorado Passenger Experience
New @SFBayFerry ferry boat?!? 😊 The Dorado just picked us up to go to Seaplane! Consdently I also just joined the Bay Ferry 2050's Community Advisory Group. bayferry2050.org #alamtg

On @SFBayFerry's Dorado this morning. It's fantastically quiet. And plenty of outdoor seating. Really nice.
Item 15: Vallejo Terminal Reconfiguration
Vallejo Ferry Terminal
Reconfiguration
August 17, 2022

Water Emergency Transportation Authority
# Dredge History

<table>
<thead>
<tr>
<th>YEAR</th>
<th>DEPTH</th>
<th>VOLUME</th>
<th>VOLUME/ DREDGE DEPTH</th>
<th>Δ YEAR</th>
<th>Comments</th>
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<tbody>
<tr>
<td>2008</td>
<td>-16</td>
<td>10,198</td>
<td>637.38</td>
<td>0</td>
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<tr>
<td>2011</td>
<td>-16</td>
<td>9,849</td>
<td>615.56</td>
<td>3</td>
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<td>2015</td>
<td>-16</td>
<td>7,329</td>
<td>458.06</td>
<td>4</td>
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<tr>
<td>2017</td>
<td>-16</td>
<td>3,078</td>
<td>192.38</td>
<td>2</td>
<td>Emergency Dredge- Service Disruption</td>
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<tr>
<td>2018</td>
<td>-16</td>
<td>5,836</td>
<td>364.75</td>
<td>1</td>
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<tr>
<td>2021</td>
<td>-16</td>
<td>7,487</td>
<td>467.94</td>
<td>3</td>
<td>Service Disruption</td>
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<td>AVERAGE</td>
<td>-16</td>
<td>7,296</td>
<td>456.01</td>
<td>2.6</td>
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<tr>
<td>WEIGHTED AVERAGE</td>
<td>7,198</td>
<td>449.86</td>
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# Historic Dredge Costs

<table>
<thead>
<tr>
<th>Year</th>
<th>Volume</th>
<th>Cost/CY</th>
<th>Actual Dredge Cost</th>
<th>Total Actual Cost</th>
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</thead>
<tbody>
<tr>
<td>2003</td>
<td>~20,000</td>
<td>$13.00</td>
<td>$463,877</td>
<td>City of Vallejo</td>
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<tr>
<td>2008</td>
<td>8,133</td>
<td>$13.00</td>
<td>$124,469</td>
<td>City of Vallejo</td>
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<tr>
<td>2011</td>
<td>9,849</td>
<td>$10.00</td>
<td>$148,490</td>
<td>City of Vallejo</td>
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<tr>
<td>2015</td>
<td>7,239</td>
<td>$30.00</td>
<td>$369,870</td>
<td>$1,577,600.00</td>
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<td>3,078</td>
<td>$30.00</td>
<td>$262,813</td>
<td>$318,750.00</td>
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<td>2018</td>
<td>5,836</td>
<td>$53.60</td>
<td>$614,030</td>
<td>$2,233,211.00</td>
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<td>2021</td>
<td>8,300</td>
<td>$40.00</td>
<td>$332,000</td>
<td>$1,294,760.05</td>
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</table>
Hydrographic Model of the Strait
Reconfiguration Goals

- Improve terminal operations
- Improve Safety
- Reduce or eliminate dredging needs
- Reduce capital expenses
Reconfiguration Components Alternatives 1 and 2

- WETA standard passenger float 134.5’ x 42’
- Three (3) section gangway walkway
- 11’x90’ gangways
- Three (3) reinforced concrete dolphins supported by steel pipe piles
- Five (5) 36” diameter steel pipe anchor piles
- Four (4) 36” diameter berthing monopiles, two (2) on each side of the float
- Eight (8) 12” diameter marker piles
Construction Cost Estimate

- $11 million for Alternatives 1 or 2 (2022 Engineers Estimate)
  - Utility connections and public access improvements may vary between Alternatives 1 and 2 resulting in minor cost differences
  - Final construction materials could affect the construction cost
    - Pile material
    - Pier/walkway material and design
    - Covered walkways
Alternative 1
Alternative 1
Alternative 2
Alternative 2
Next Steps

- Continue Stakeholder Outreach
- Continue Resource Agency Coordination
- Environmental Review CEQA/NEPA
- Resource Agency Permitting
- Construction
Agenda

- Dredge History
- Sedimentation Study
- Reconfiguration Options
- Next Steps
Dredge History
Sedimentation Study

- Measured deposition rate based on surveys between dredge events

<table>
<thead>
<tr>
<th>Deposition Rate</th>
<th>Max (ft/year)</th>
<th>Mean (ft/year)</th>
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<tbody>
<tr>
<td>Full Study Area</td>
<td>4.5</td>
<td>0.22</td>
</tr>
<tr>
<td>In Terminal</td>
<td>4.5</td>
<td>2.05</td>
</tr>
<tr>
<td>Out Terminal</td>
<td>1.76</td>
<td>-0.05</td>
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