Calabazas/San Tomas Aquino Creek Marsh Connection Project

South Bay Salt Ponds
A8 Ponds, and Coyote Creek
Dick Lyons, 2017

Environmental and Water Resources Committee Meeting

April 20, 2026

Presented by: Judy Nam, Senior Water Resources Specialist

Valley Water

Purpose of Today's Presentation

- Project Overview
- Present Planning Study Results
- Introduce Staff Recommended Alternative (Alt 6)
- Highlight key benefits, risks, and tradeoffs
- Receive Committee input

PROJECT LOCATION AND OBJECTIVES

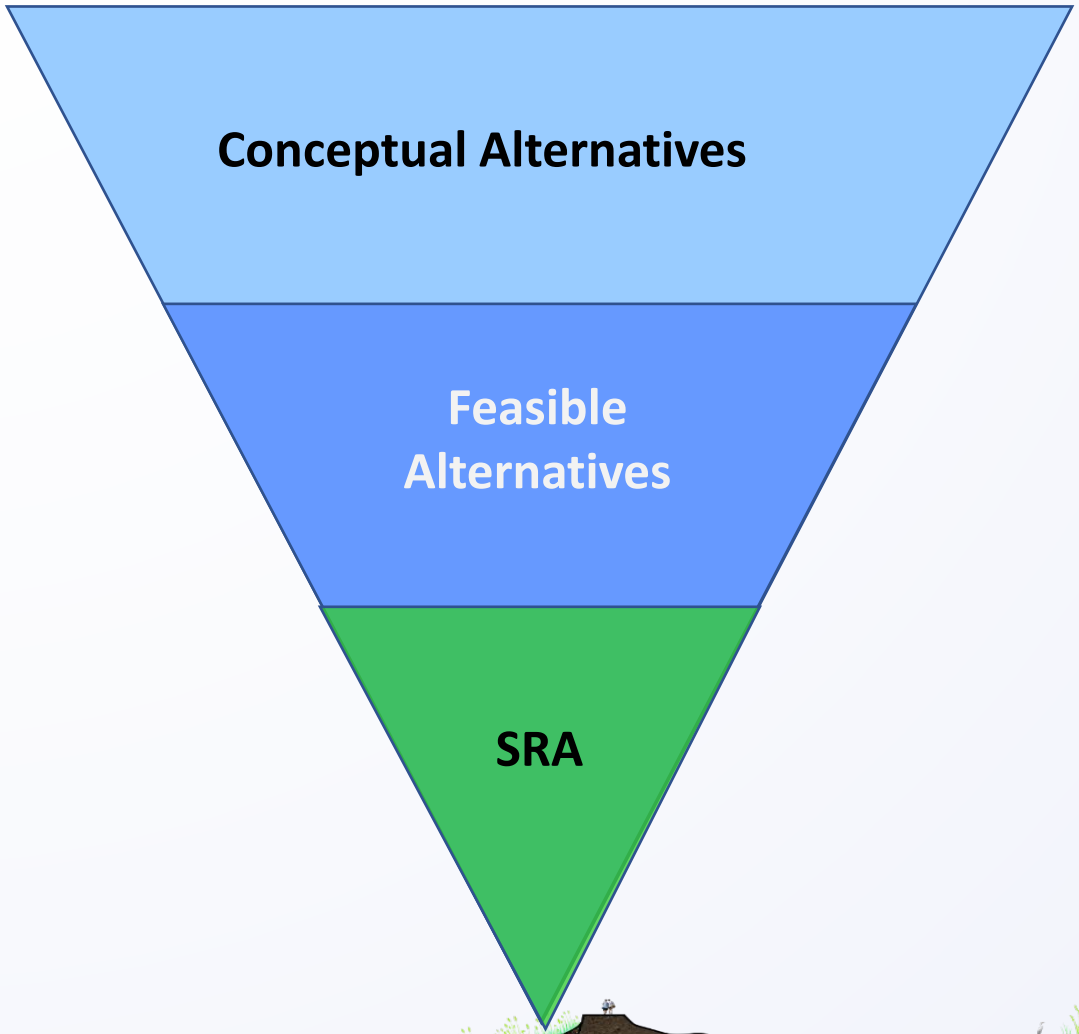
HABITAT RESTORATION

RESILIENT FLOOD PROTECTION

REDUCED MAINTENANCE NEEDS

ENHANCED PUBLIC ACCESS

PROJECT PLANNING PROCESS



2023

20 alternatives and screening process developed

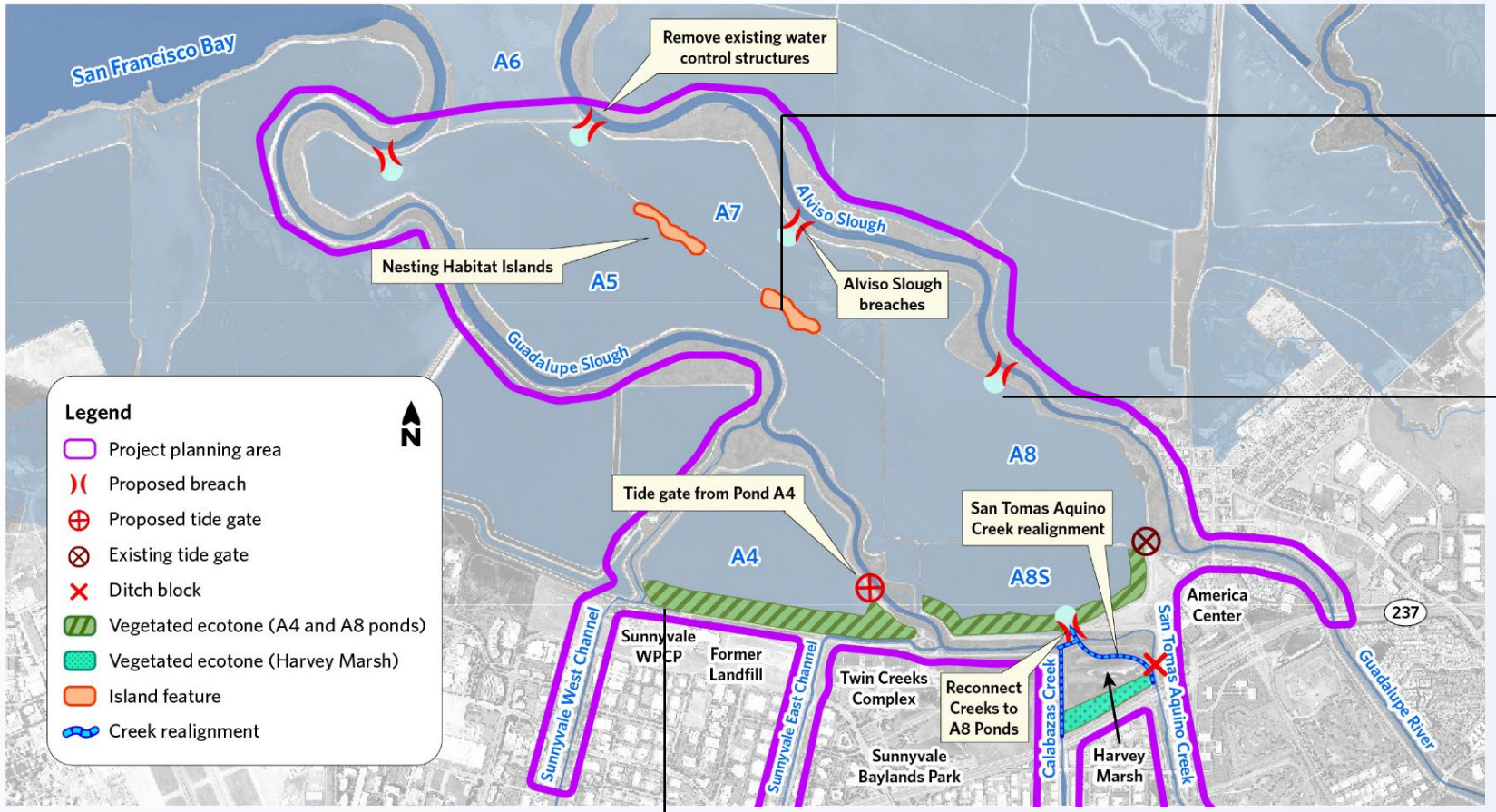
2024

Feasibility Screening
Hydrodynamic and sediment transport modeling

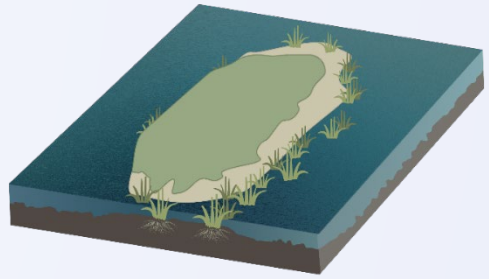
2025

Baseline assessments and Future conditions modeling

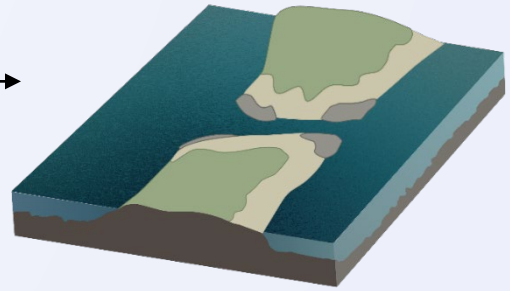
RESTORATION ELEMENTS CONSIDERED



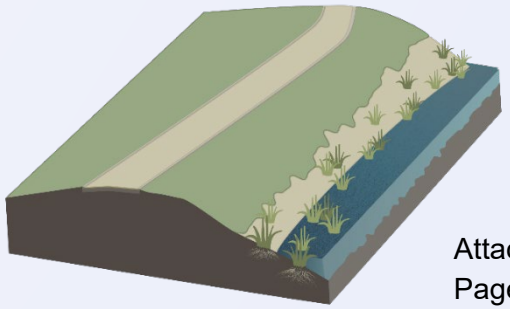
ISLAND



BREACH

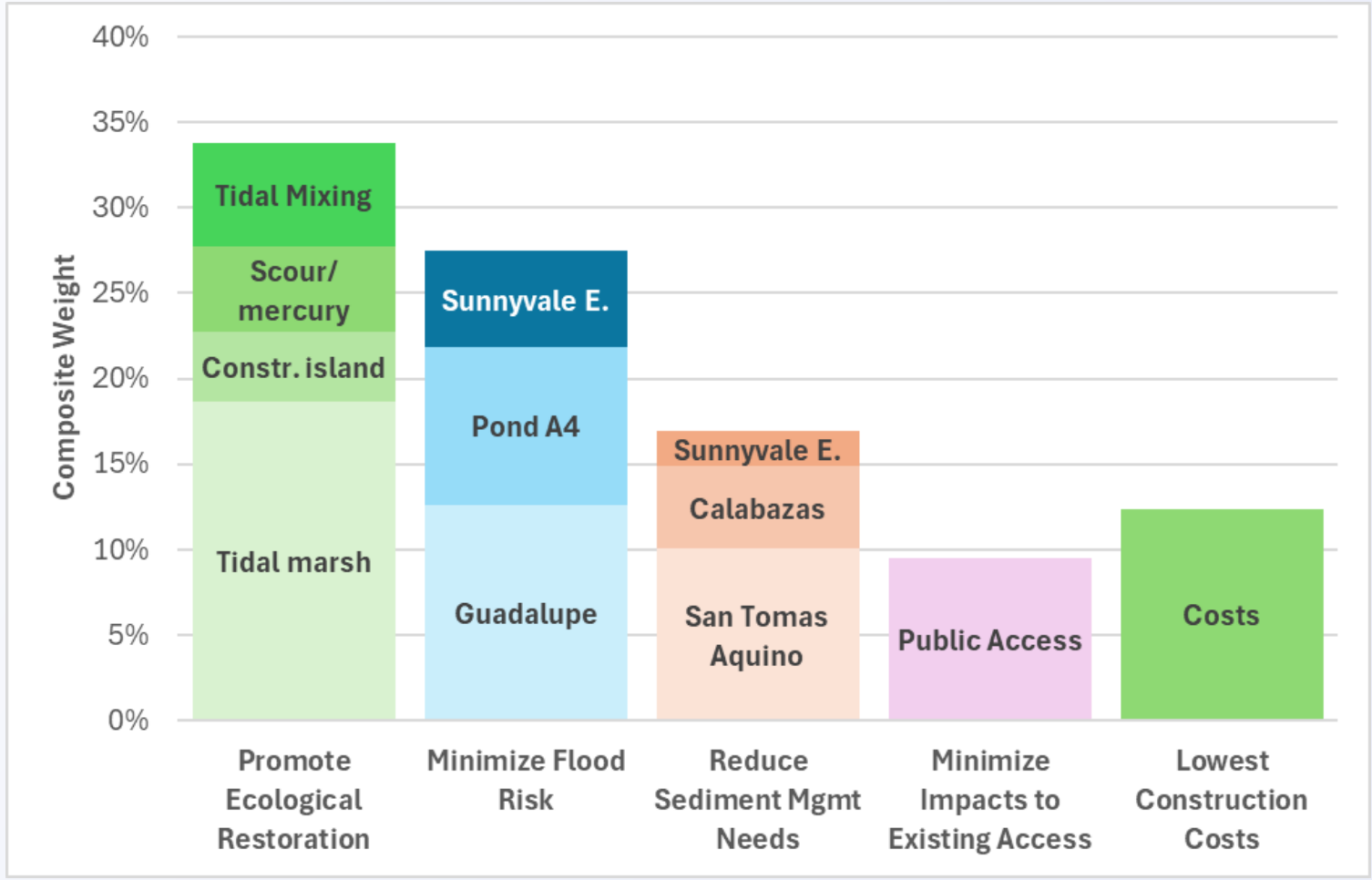


ECOTONE



FEASIBLE ALTERNATIVES ANALYSIS

- Assessment Methodology:
  - Categories broken into factors for scoring
  - Each factor given a weight



FEASIBLE ALTERNATIVES ANALYSIS SUMMARY

Assessment Categories	Alt. 1	Alt. 3	Alt. 5	Alt. 6	Alt. 7
Promote Ecological Restoration					
Minimize Flood Risk					
Reduce Sediment Management Needs					
Minimize Impacts to Existing Access					
Lowest Construction Costs					
Overall Rating					

 Poor

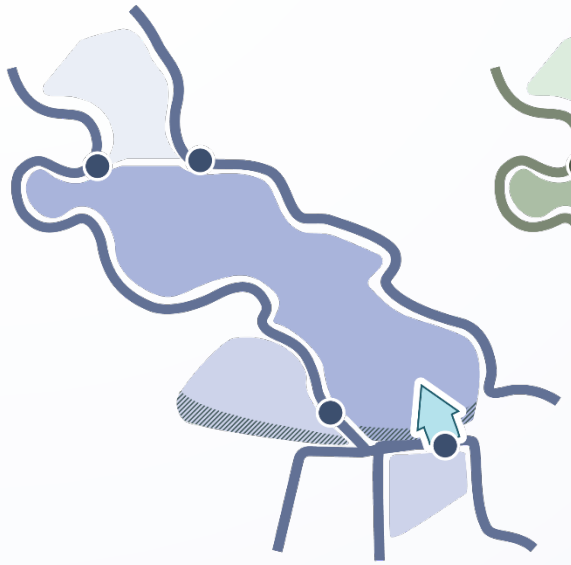
 Fair

 Adequate

 Very Good

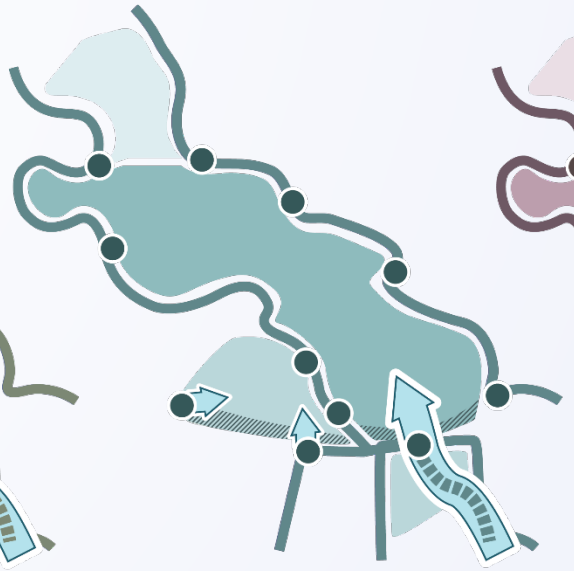
 Outstanding

FEASIBLE ALTERNATIVES ANALYSIS SUMMARY

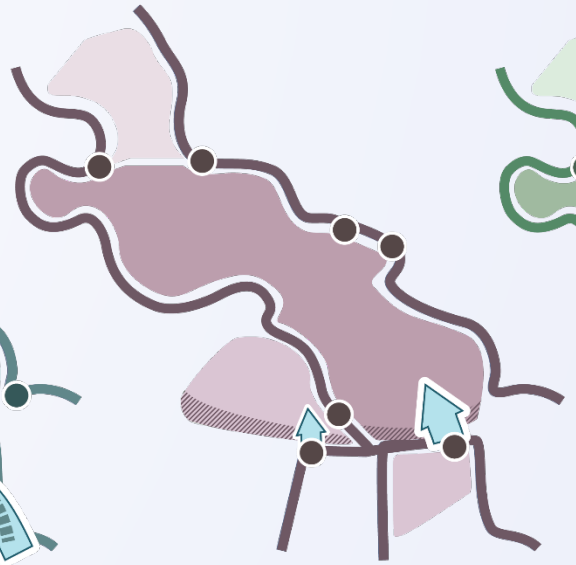


ALTERNATIVE 1

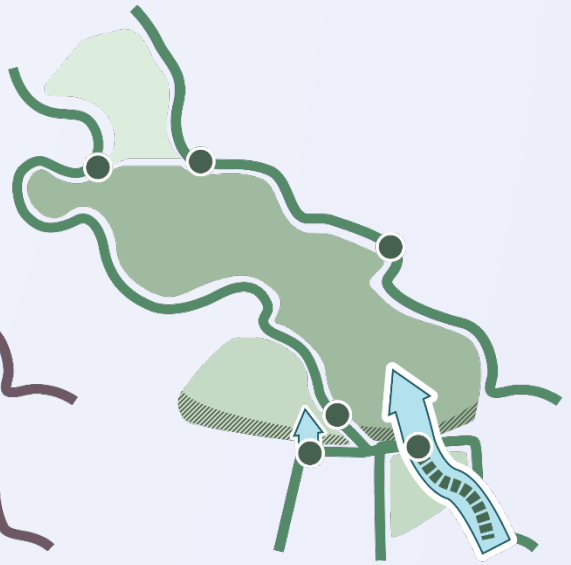
ALTERNATIVE 3



ALTERNATIVE 5



ALTERNATIVE 6



ALTERNATIVE 7

Poor

Fair

Adequate

Very Good

Outstanding

ALT. 6 – CREEK RECONNECTION, ALVISO SL. & POND A4 BREACHES

Why Alternative 6

- Most effective marsh formation
- Improves water quality over time
- Reduces sediment buildup in creeks
- Most cost-effective among high-performing options
- Balances habitat, flood, and maintenance goals

Public Access Enhancements

Support for Bay Trail Reach 9

Key Benefits of the Recommended Alternative

Habitat & Ecology

- Accelerates tidal marsh formation
- Supports long-term ecosystem health

Flood Risk

- Increased tidal storage
- Lower or unchanged water levels in most areas

Operations

- Reduced sediment removal needs and lower long-term maintenance cost
- Lowest construction cost

Key Risks & Considerations

Flood Risk (Localized)

- Increased water levels in Pond A4 under extreme events
- Mitigation to be refined during design

Water Quality (Short-Term)

- Temporary increase in mercury mobilization
- Long-term improvement expected with tidal exchange

Implementation

- Requires securing construction funding

Funding & Next Steps

Planning & Design Funding Secured

- Measure AA, EPA, Prop 1, Fund 12

Next Steps

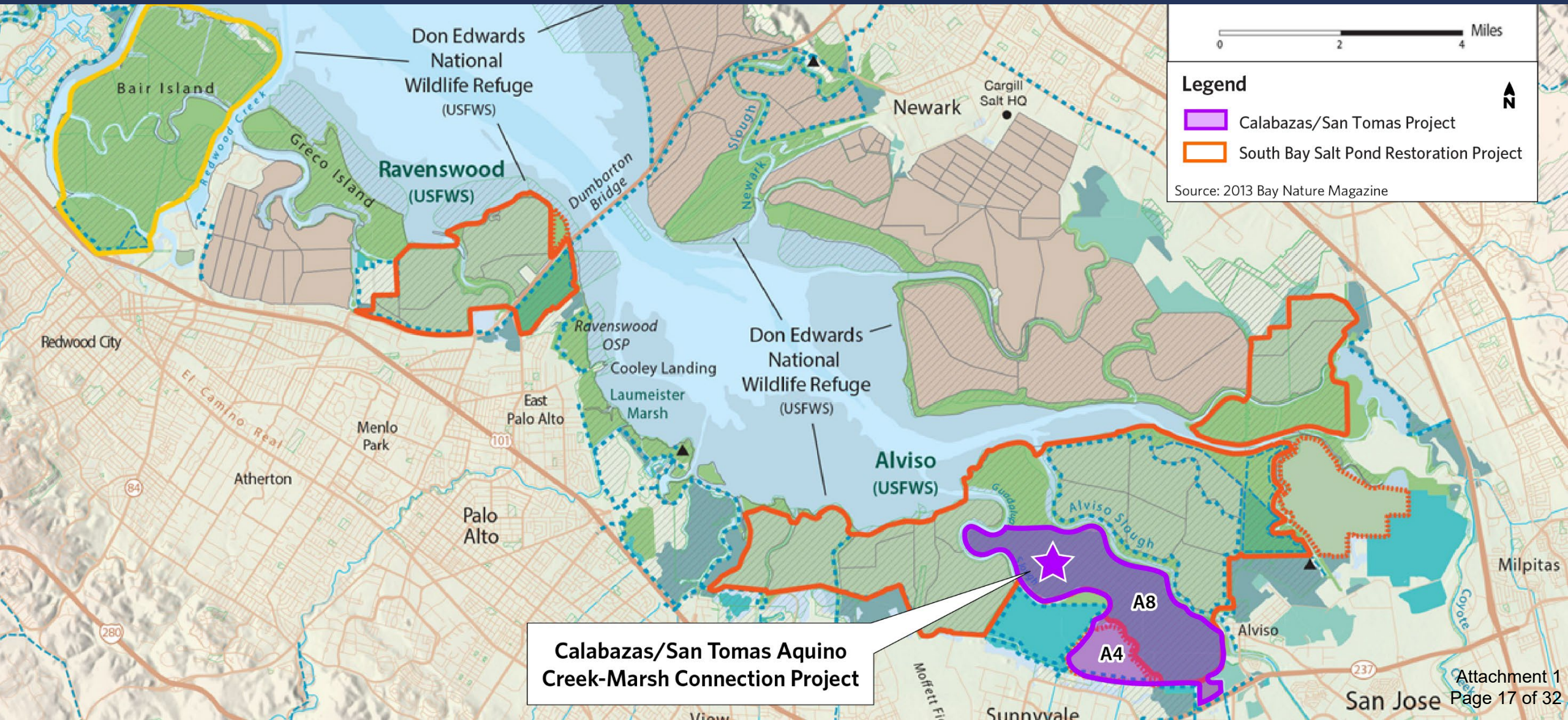
- Finalize Planning Study (June 2026)
- Begin Design (July 2026)
- Pursue construction funding

Questions

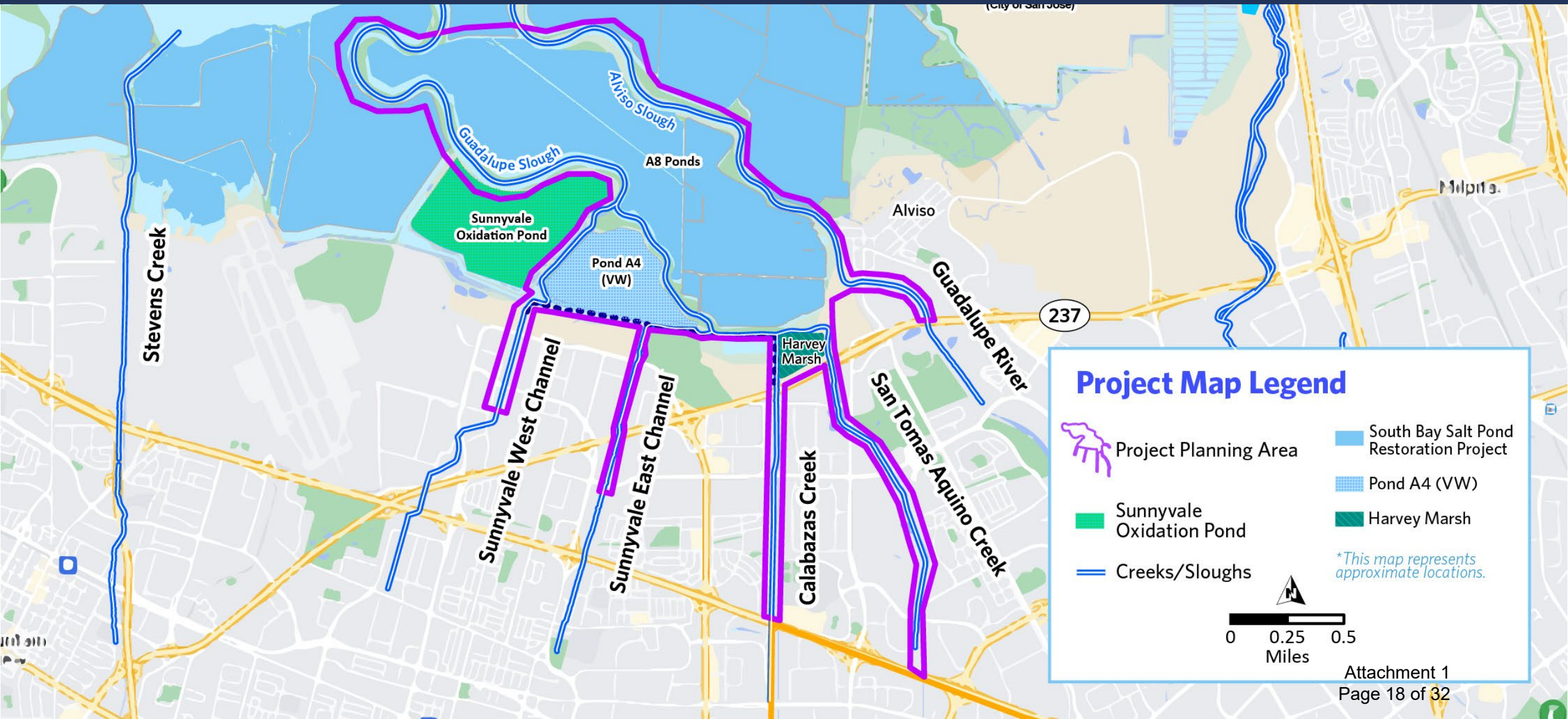
Extra:

- Restoration Elements
- Feasible Alternatives
- Alternative Analysis Details

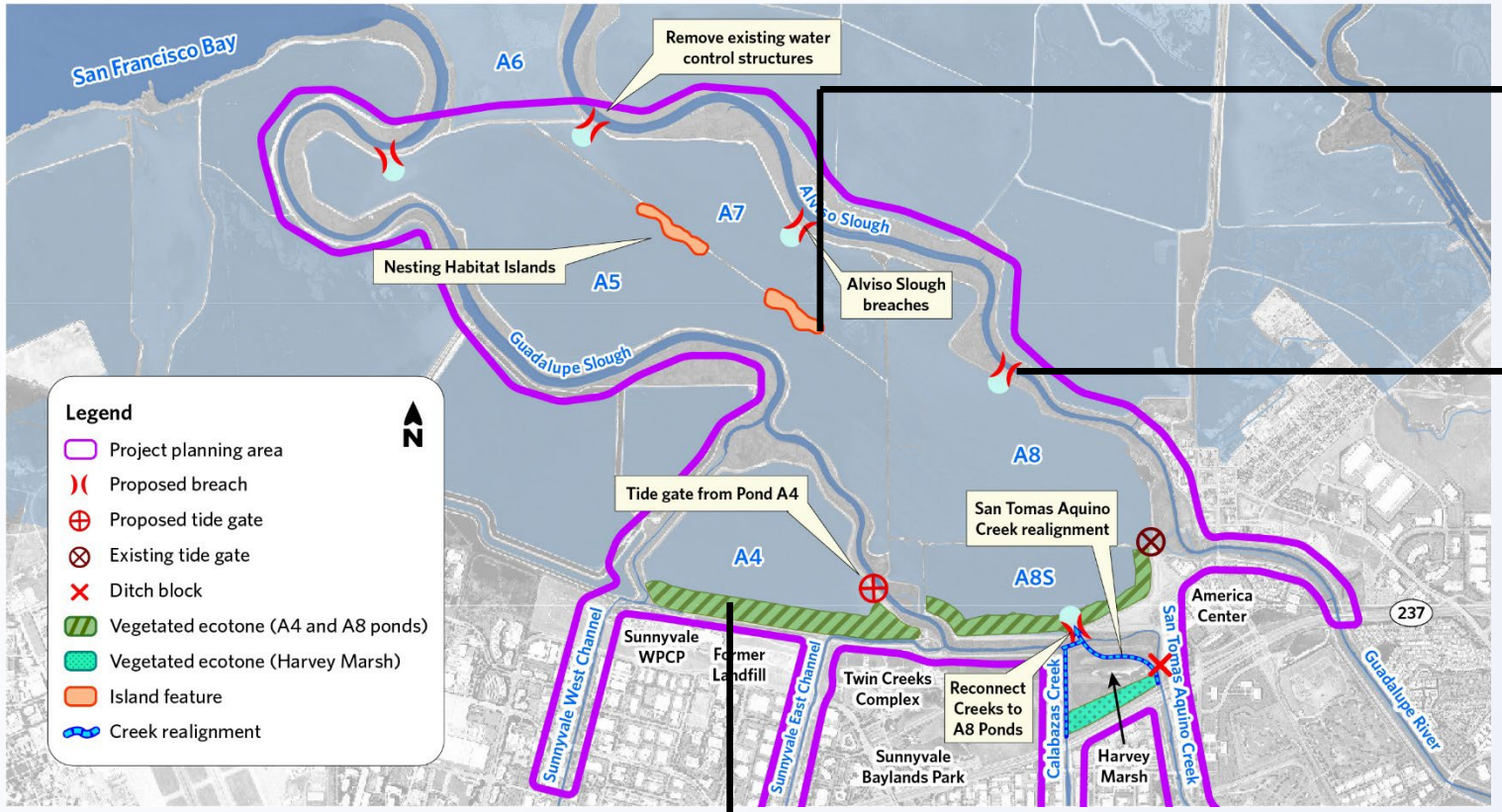
CONNECTION TO BROADER SOUTH BAY SALT POND RESTORATION



CALABAZAS/SAN TOMAS AQUINO CREEK-MARSH CONNECTION PROJECT



RESTORATION ELEMENTS CONSIDERED



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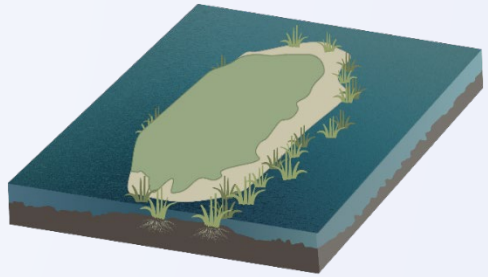

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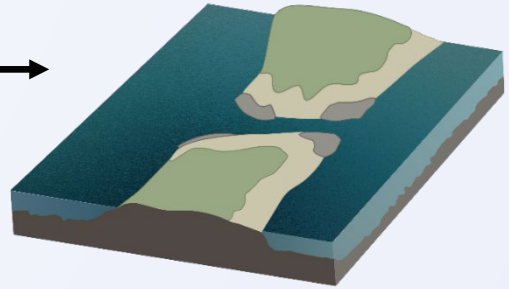

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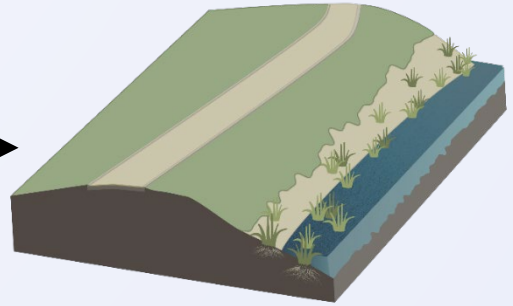
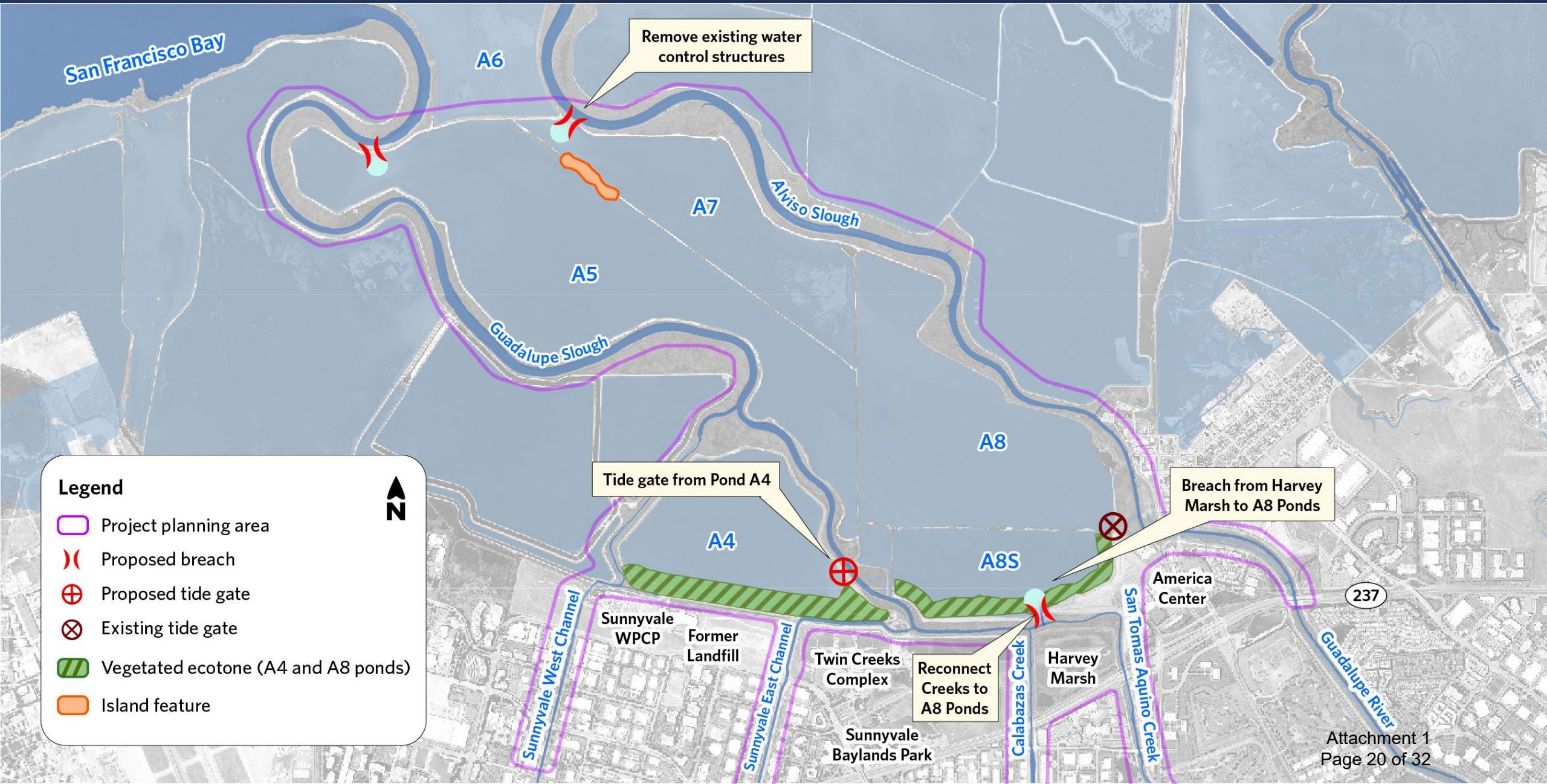
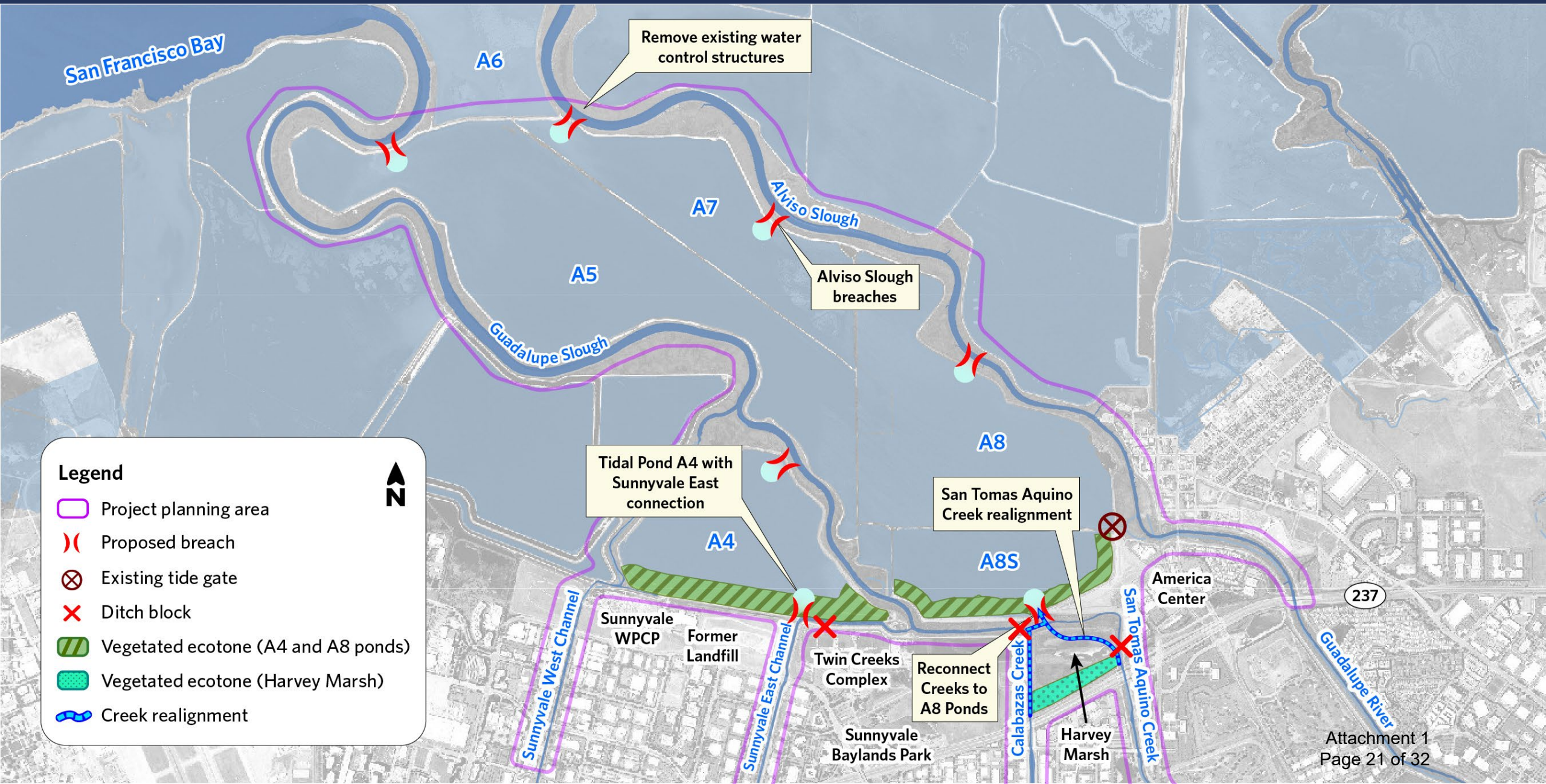


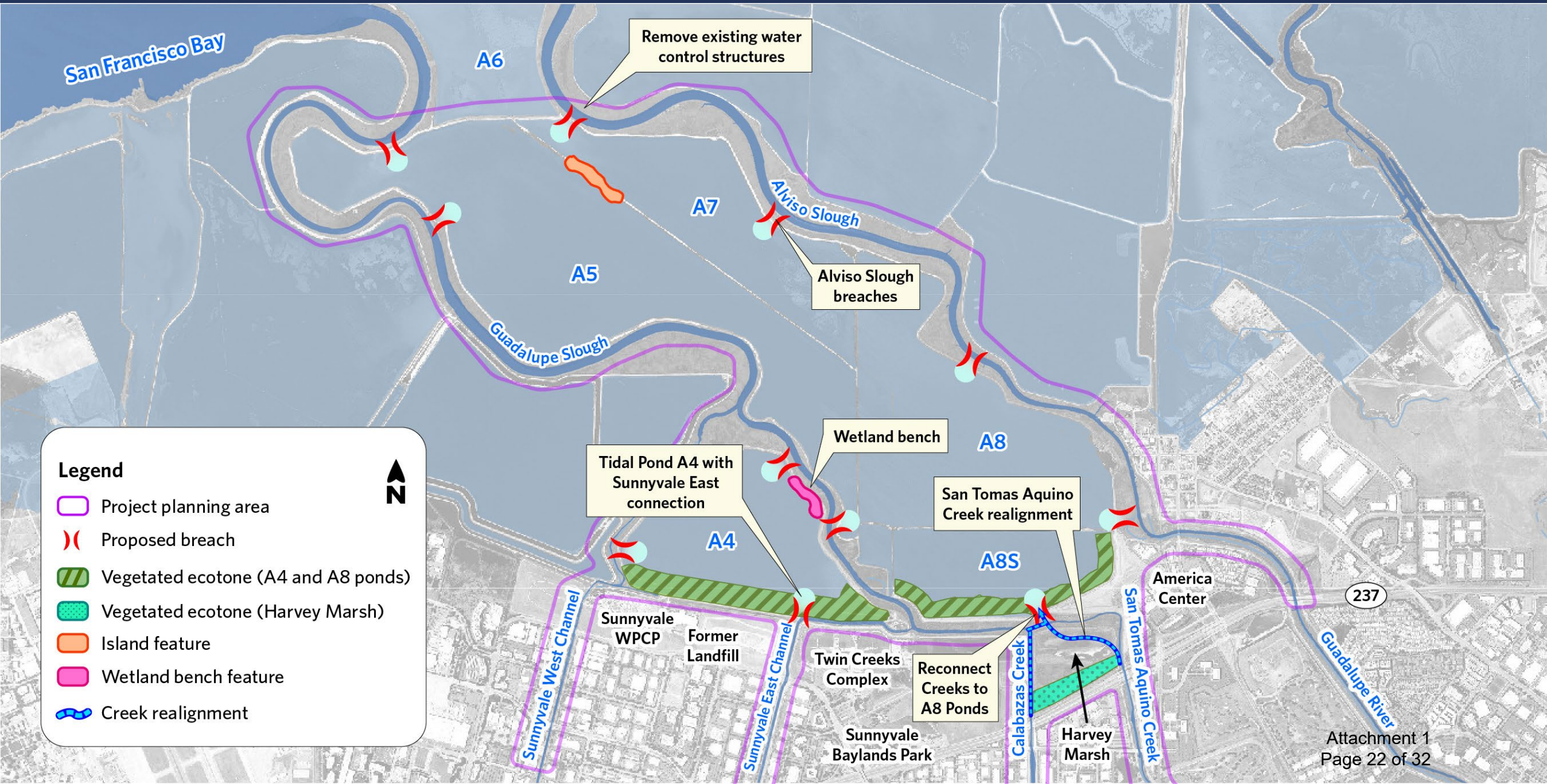
ALT. 1 – MINIMUM TIDAL CONNECTIVITY



ALT. 3 – CREEK REALIGNMENT, ALVISO SL. & POND A4 BREACHES



ALT. 5 - MAXIMUM TIDAL CONNECTIVITY



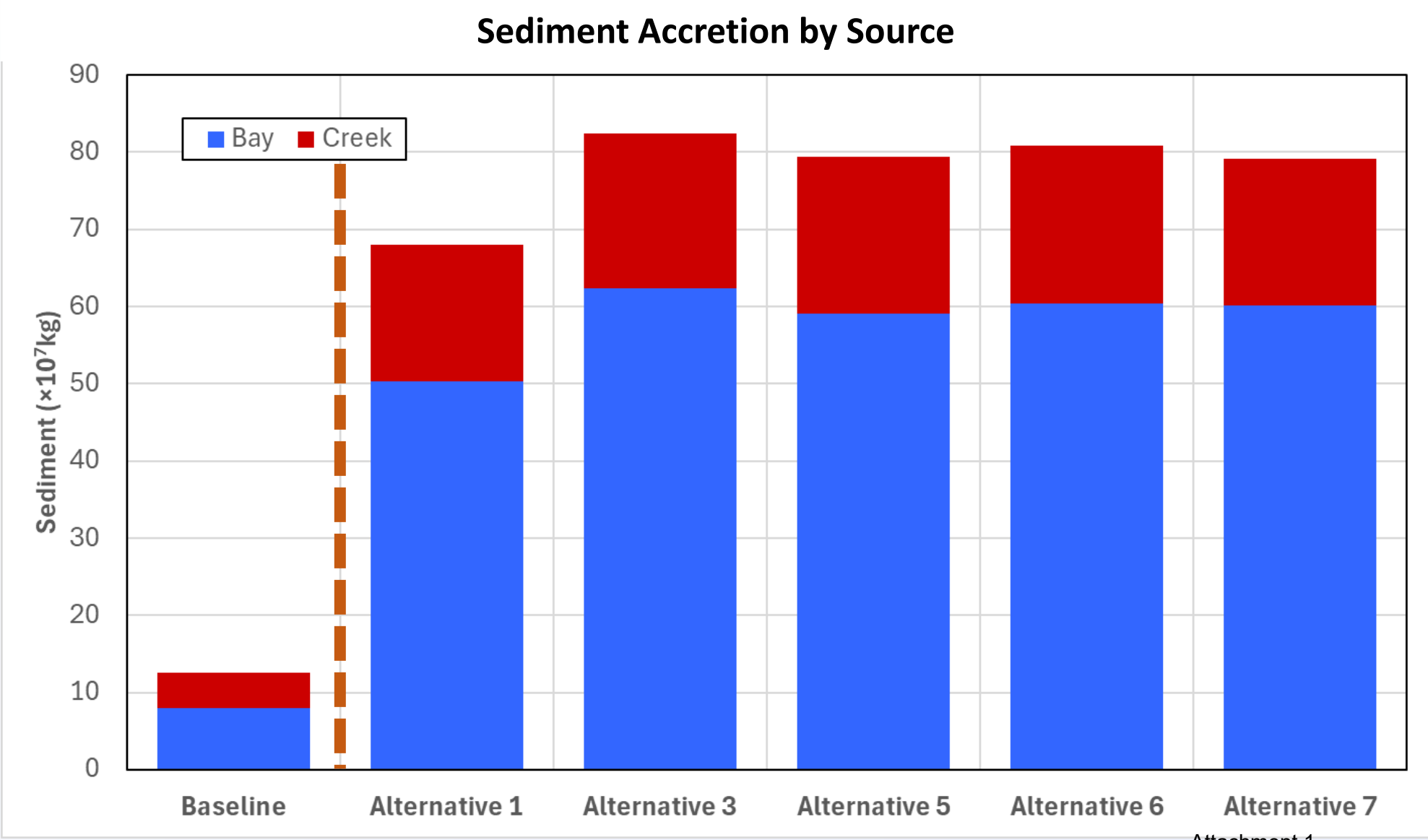
ALT. 6 – CREEK RECONNECTION, ALVISO SL. & POND A4 BREACHES

ALT. 7 - CREEK REALIGNMENT, HARVEY MARSH ENHANCEMENT

Alternatives Analysis

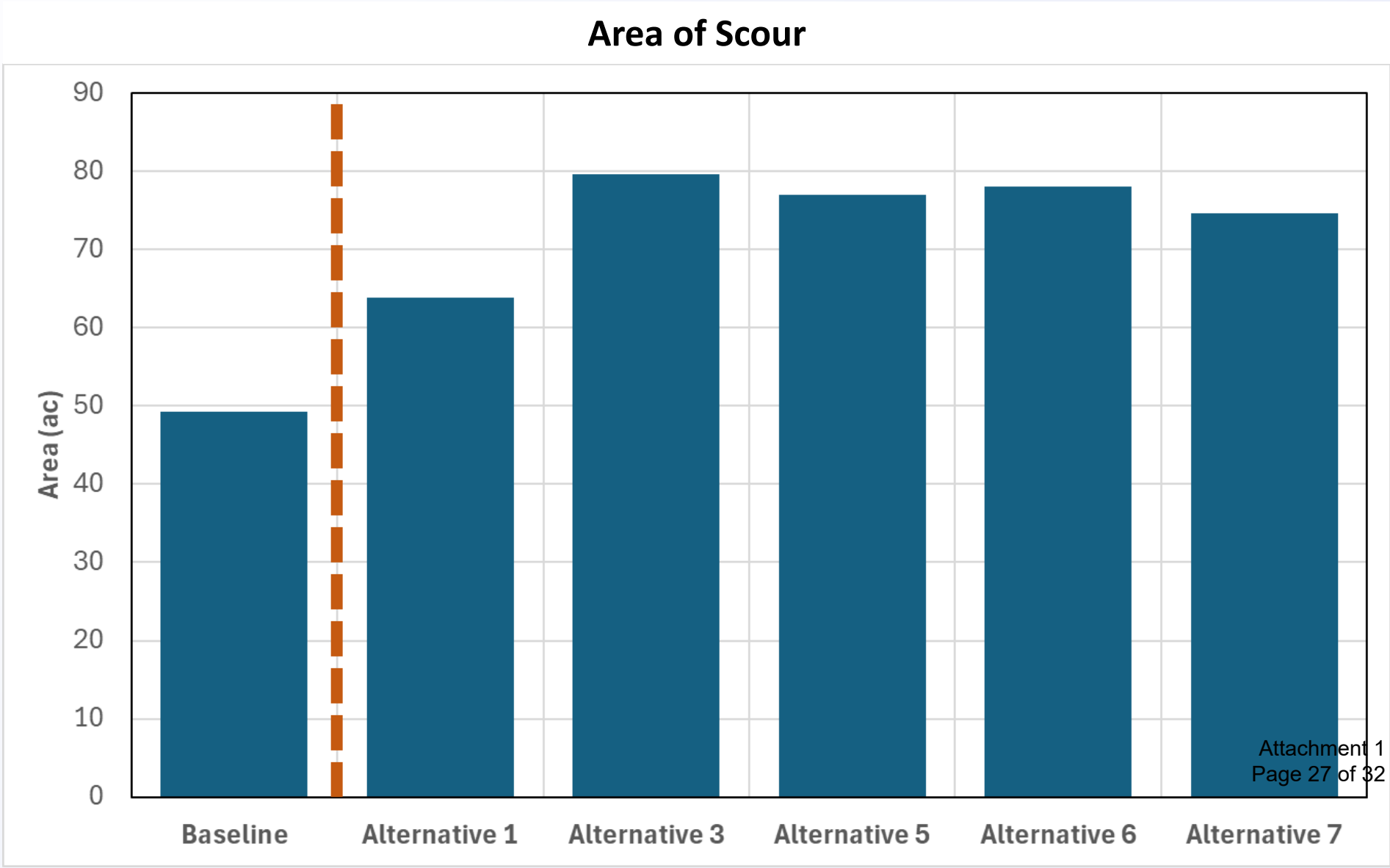
Sediment Modeling Results

Increased Tidal Marsh Sediment Accretion



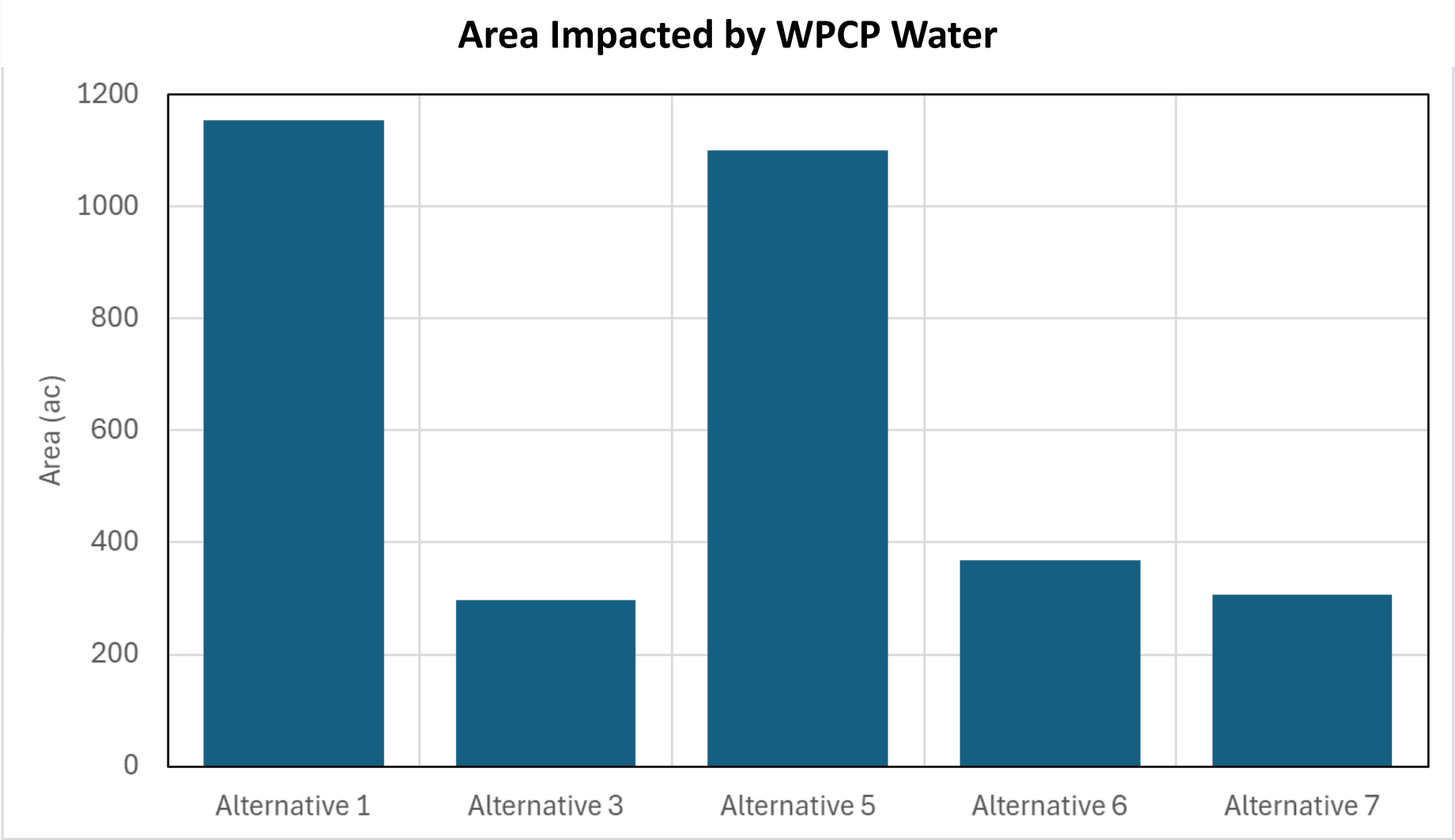
Sediment Modeling Results

Less sediment scour ⇒ Less Mercury Mobilization



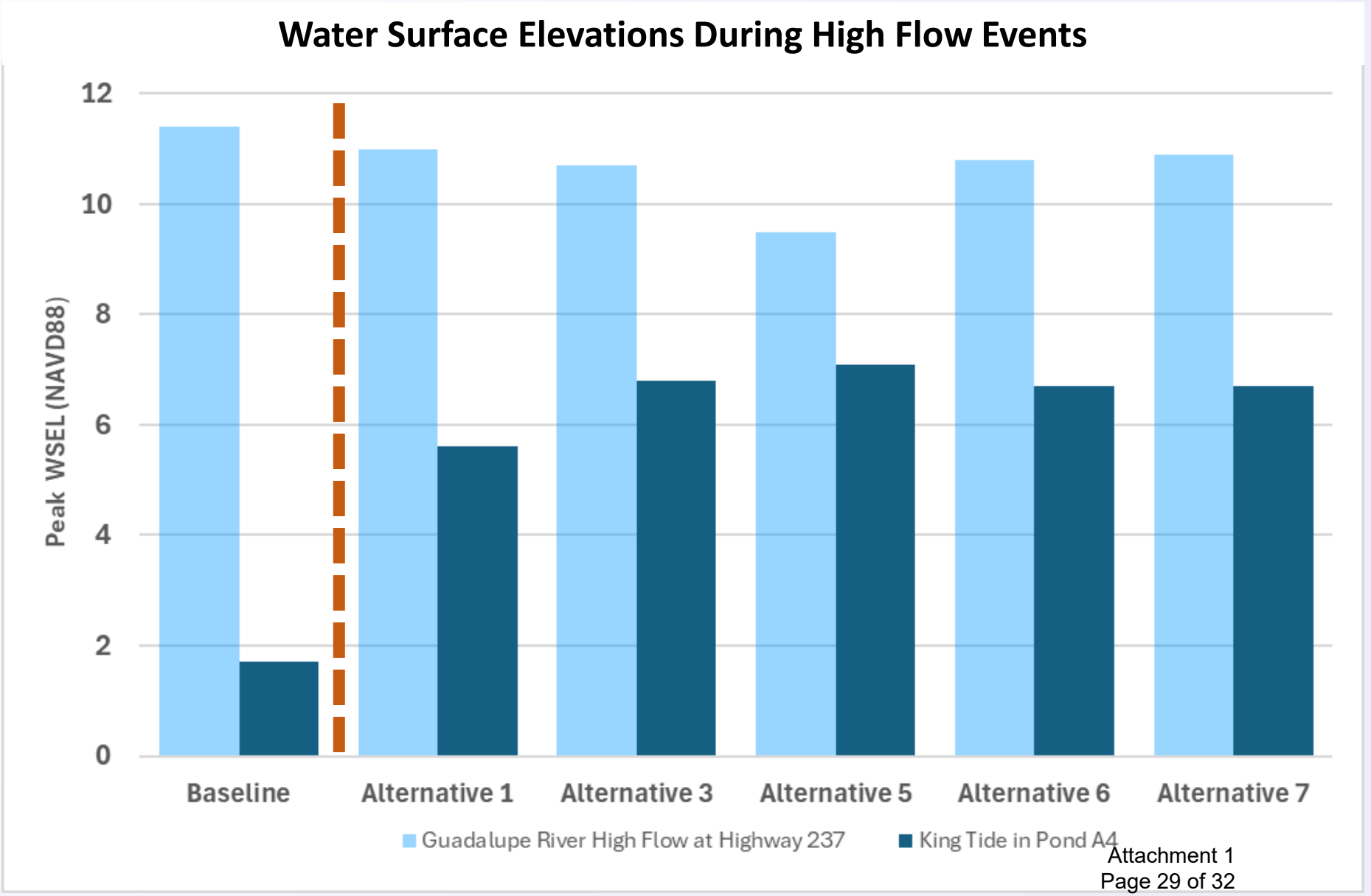
Hydrodynamic Modeling Results

Less mixing with Sunnyvale Water Pollution Control Plant (WPCP) water → Reduced potential for algae blooms



Modeling of King Tides and High Flow Events

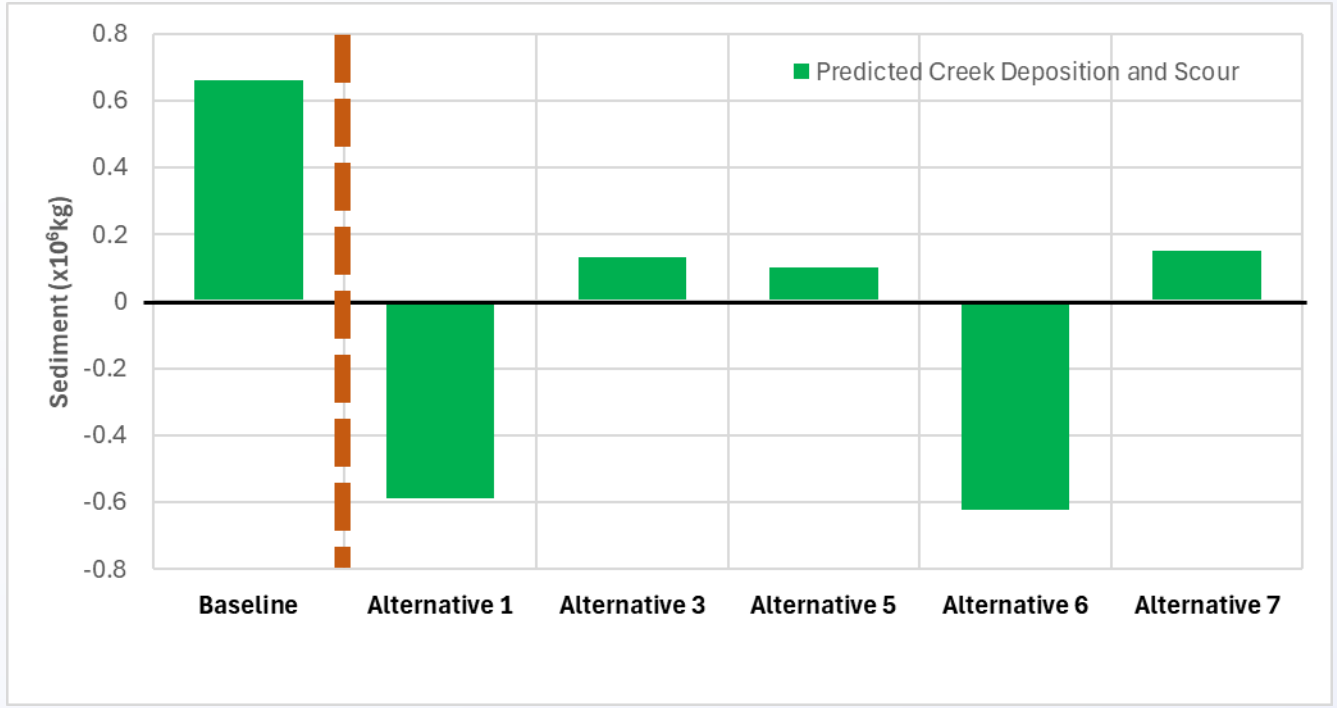
Pond breaches increase tidal storage → reduces tidal range and flood risk

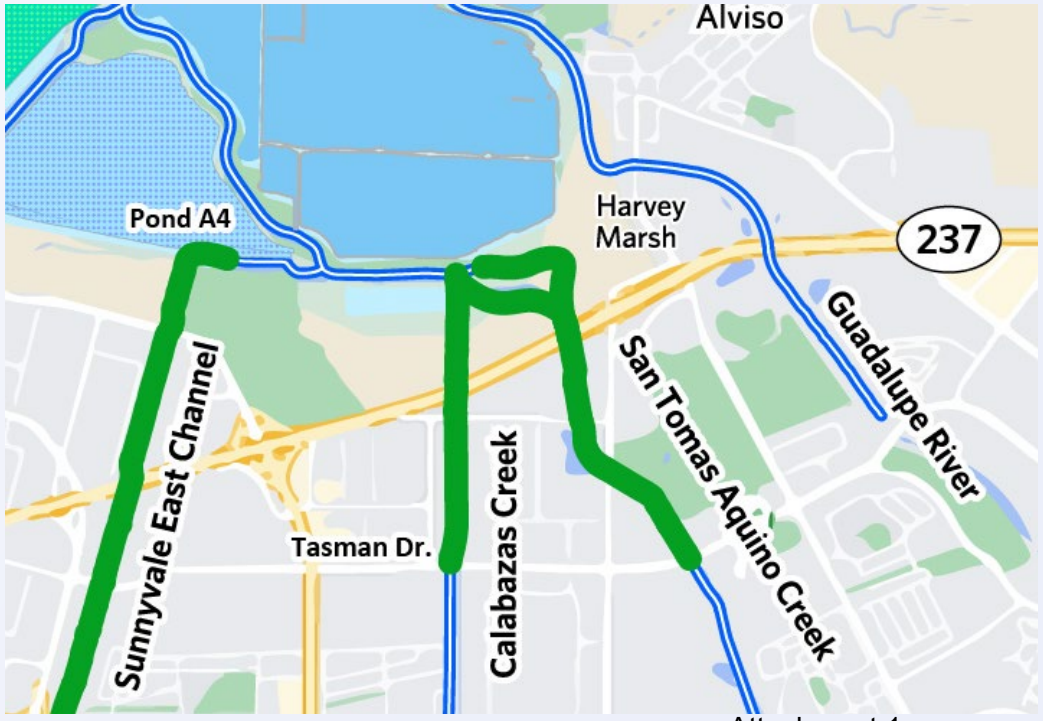


Combined Sediment Accumulation in Creeks

Reduced Sediment Deposition in Creeks

- ***Reduces future sediment removal costs***
- ***Supports tidal marsh creation at southern end of Ponds***





Public Access Enhancements

Support for Bay Trail Reach 9

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