

OAAC Adapt Projects

January 2025





Oakland Alameda Adaptation Committee (OAAC):

A coalition of shoreline communities, agencies and stakeholders working to coordinate the Oakland Alameda sub-region flood and adaptation projects to protect and restore water quality, habitat, equity, transportation and community resilience.



OAAC Adapt: Project Partners

Agency Partners



Community Partners



Consultants

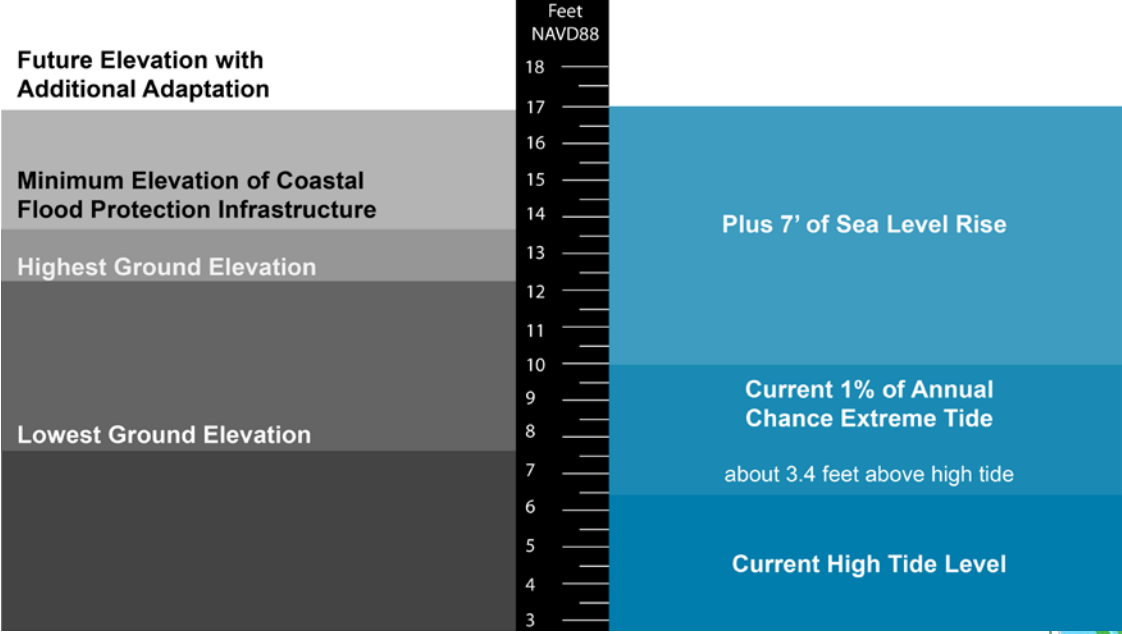
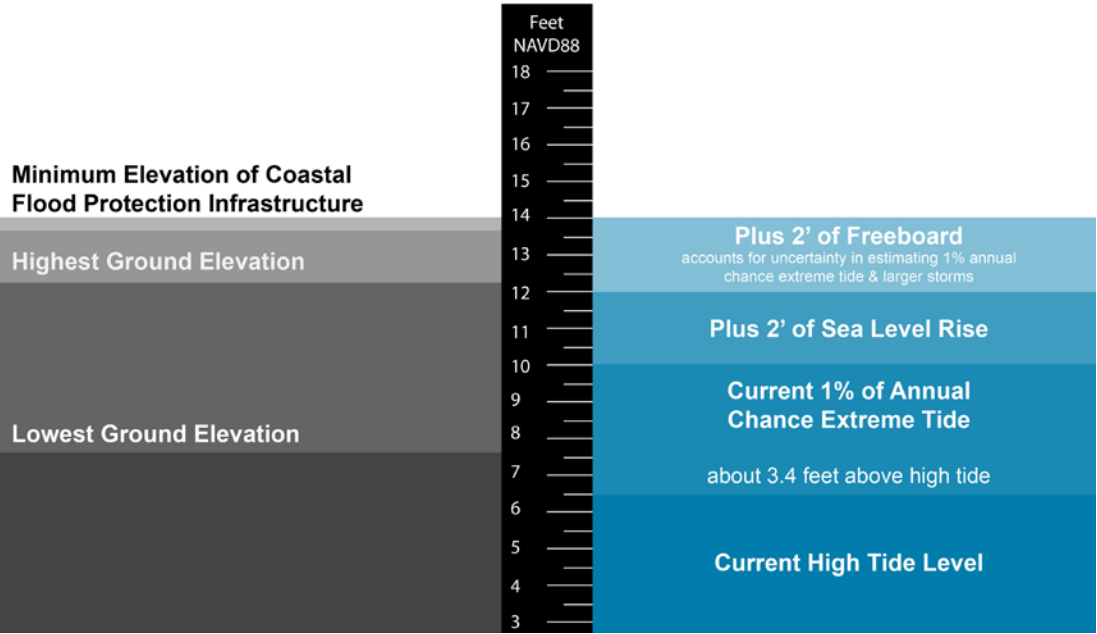
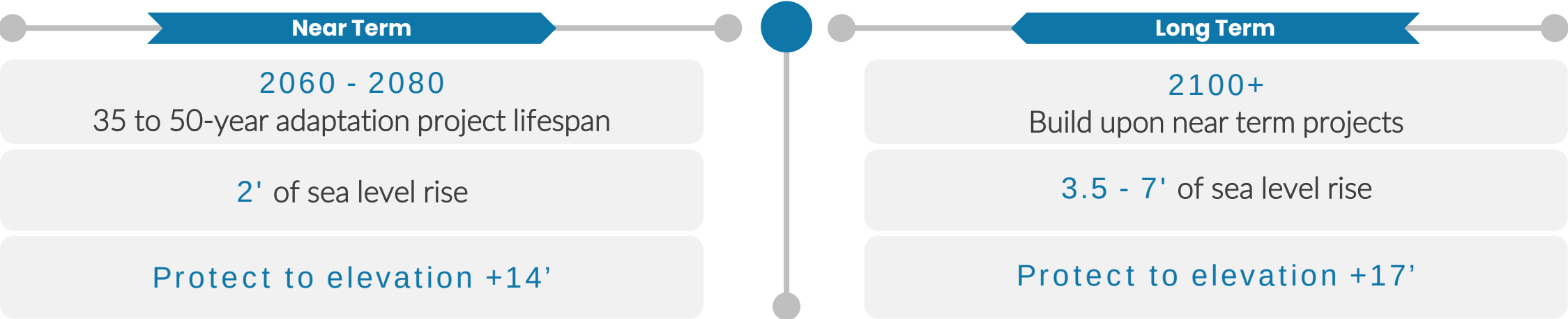


OAAC ADAPT Projects

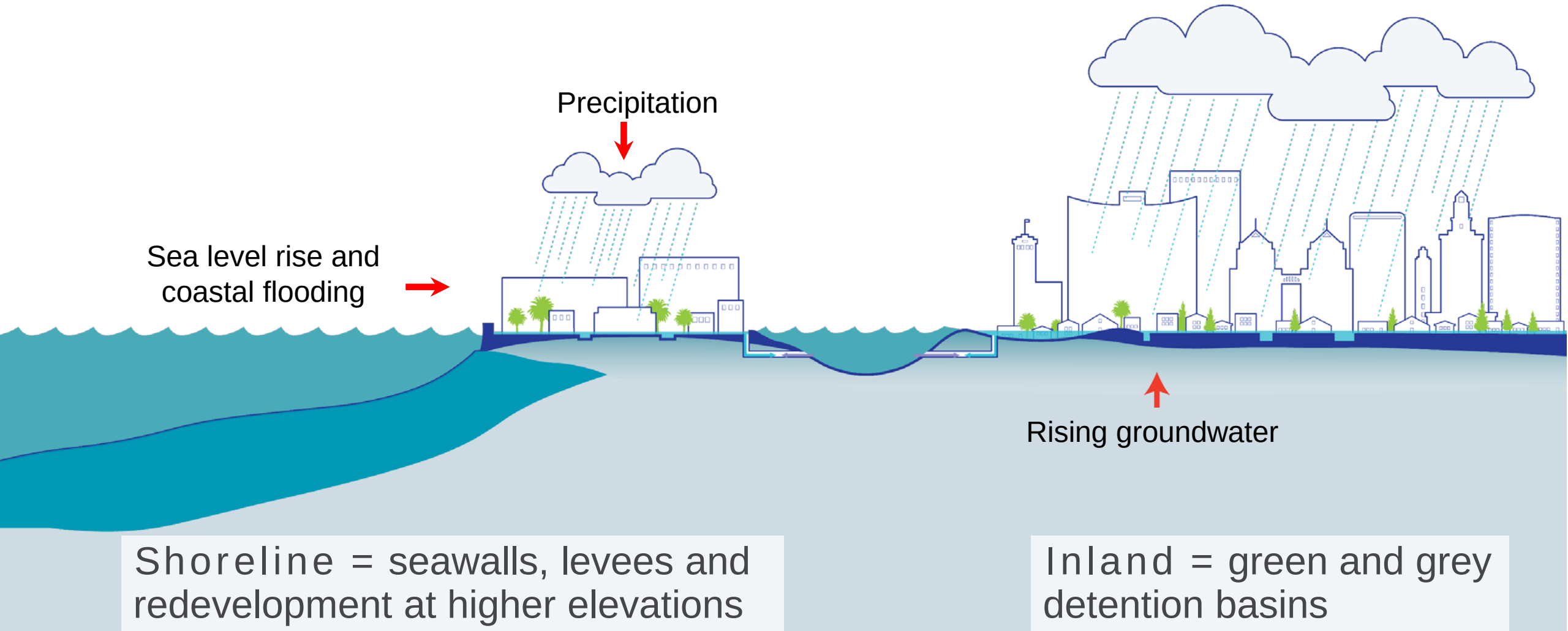
- The **Subregional Adaptation Plan** is a long-term plan that details preliminary strategies and pathways for shoreline communities to take as the climate and shorelines change over time
- The **Oakland Alameda Estuary Project** is a near-term sea level rise adaptation design concept to address increased coastal, stormwater, and groundwater flooding for up to two feet of sea level rise over the coming decades
- The **Bay Farm Island Adaptation Project** is a near-term sea level rise adaptation design project to address compound flooding and up to two feet of sea level rise and long-term planning coordination.



Sea Level Rise Project Criteria



Combined Adaptation:



Potential Adaptation Measures

*Levee and Seawall
with Bay Trail*



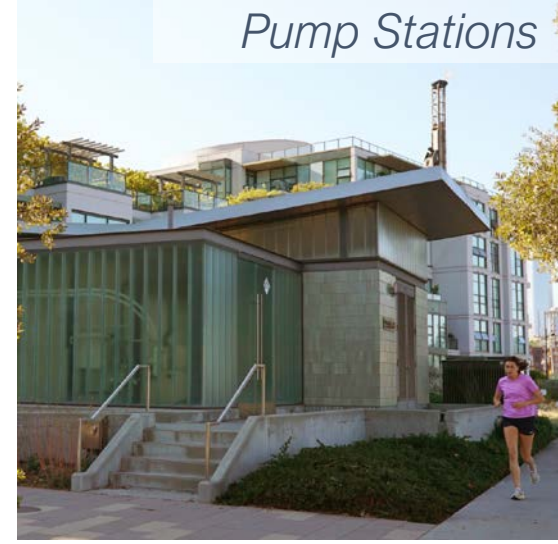
*Levee with Beach
Access*



Green detention basin



Pump Stations



*Levee with
Waterfront Park*



*Seawall with
Tidal Marsh*



*Levee with Tidal
Marsh*



Oakland-Alameda Estuary Near-Term Adaptation Project



Project Area: Oakland-Alameda Estuary



Jack London Square

Bohol Circle

Oakmont

Barnhill Marina

The Landing

Estuary Park

Lake Merritt Channel

I-880

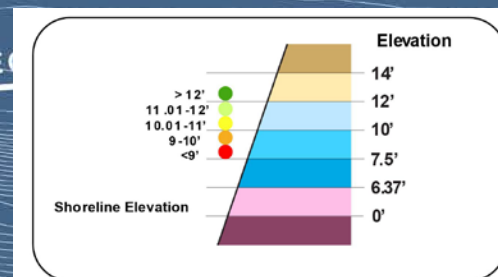
Marina Village

Shoreline Park

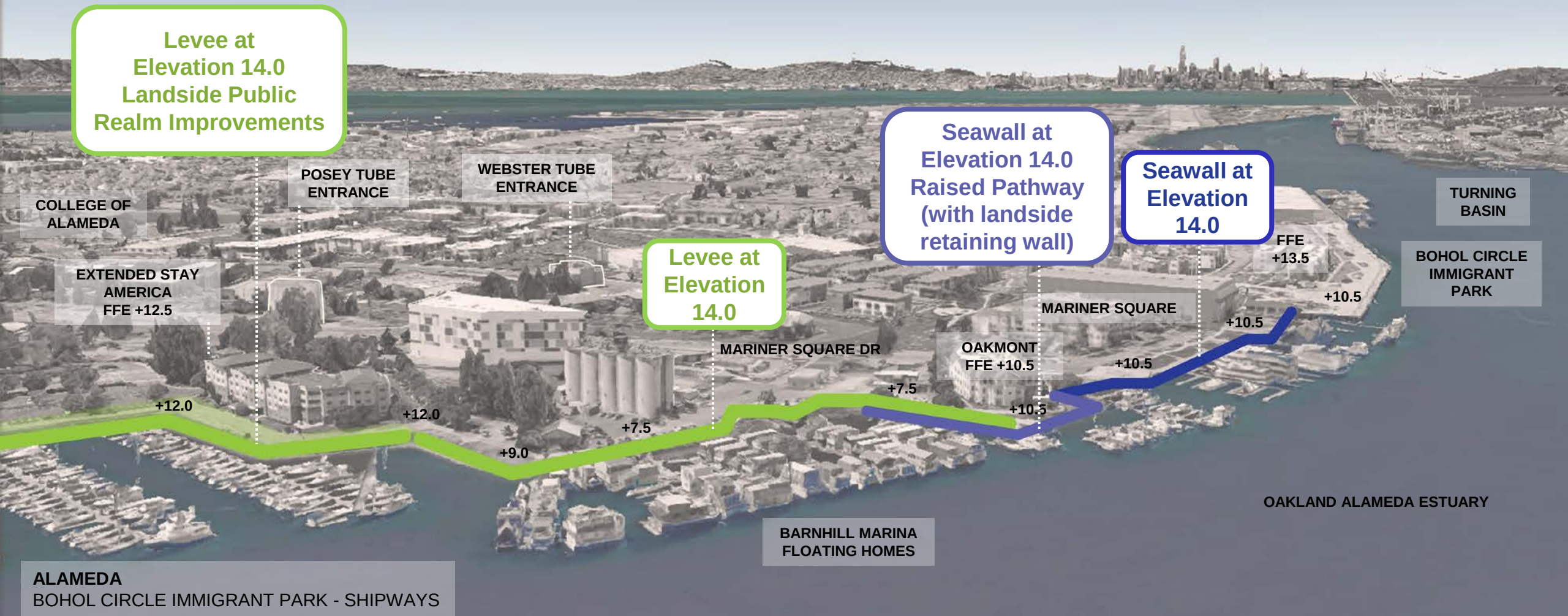
OAKLAND ALAMEDA
ESTUARY

Shoreline Analysis: Alameda

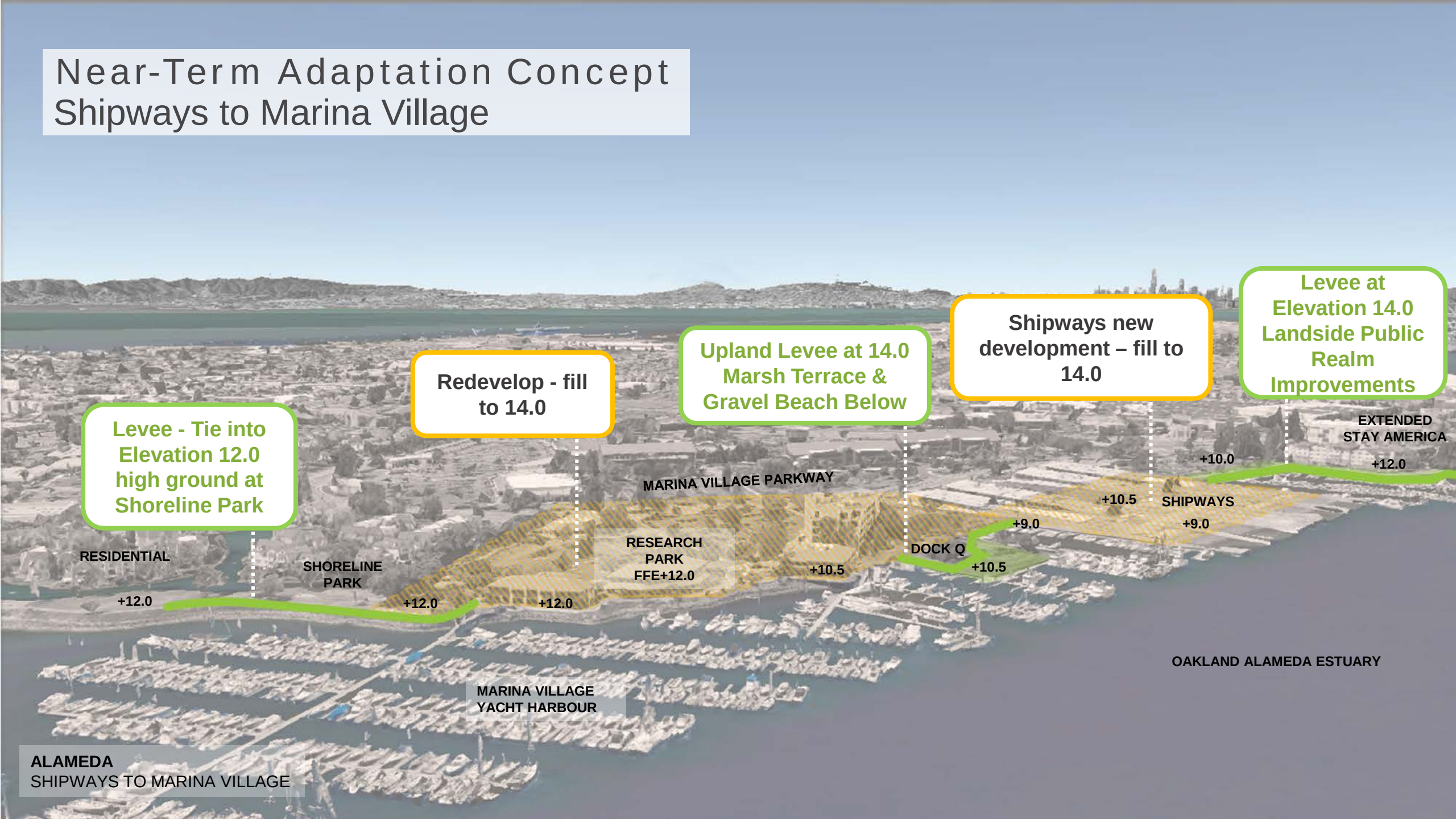


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Near-Term Adaptation Concept Bohol Circle Immigrant Park to Shipways

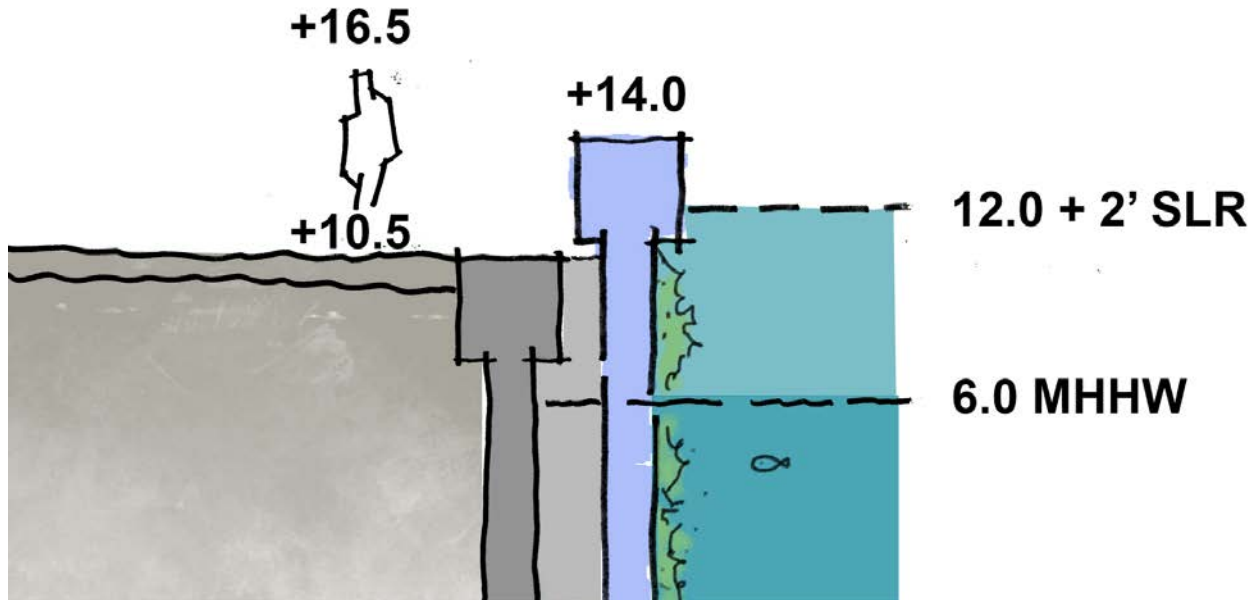


Near-Term Adaptation Concept Shipways to Marina Village



Alameda Shoreline – Near Term Adaptation Elevated **Seawall**

Build new Seawall water side
of existing wall.
Environmental permits and
agency coordination required.



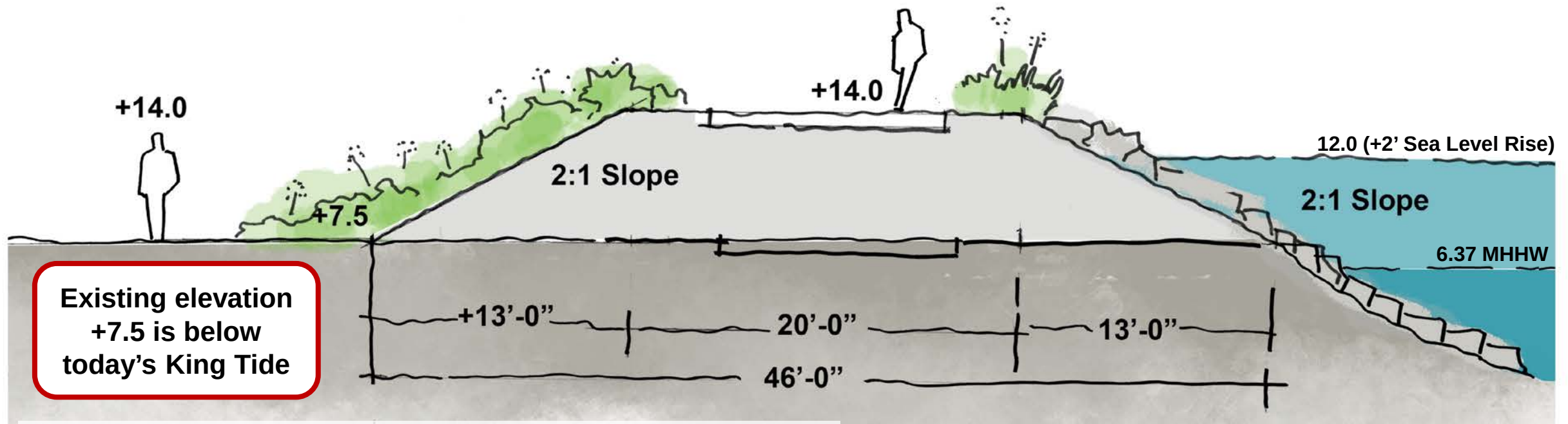
Section 1 – Typical condition at
Cardinal Point and Mariner Square Drive

Existing Elevations at Mariner Square



Alameda Shoreline – Near Term Adaptation Shoreline **Levee**

Levee elevated to +14.0.
Over 6 feet tall relative to
adjacent grade.



Section 2 – Typical condition at Barnhill Marina

Alameda Shoreline – Near Term Adaptation

PICNIC AREA

UPLAND HABITAT
PLANTING

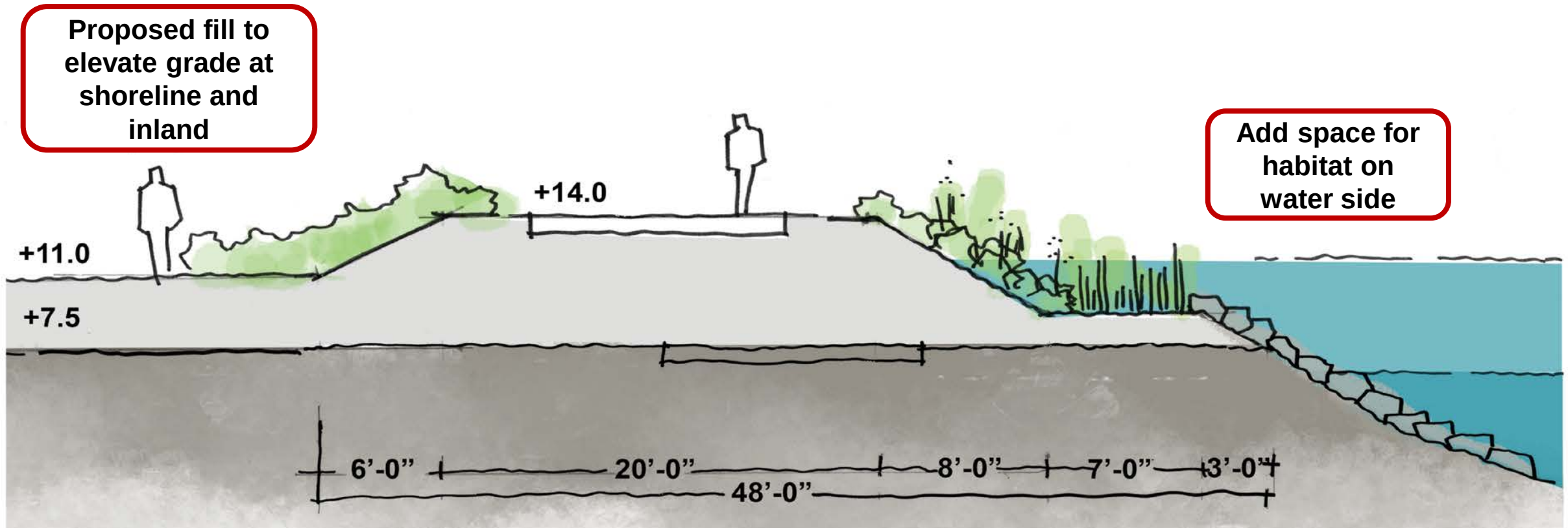
LEVEE & IMPROVED
BAY TRAIL

SLOPE ENHANCEMENT & PLANTING FOR ROCK AND
LOG INTERTIDAL HABITAT



Alameda Shoreline – Near Term Adaptation

Raised Grade at Shoreline and Inland



Section 4 – Typical condition at Marina Village

Inland Flooding Analysis

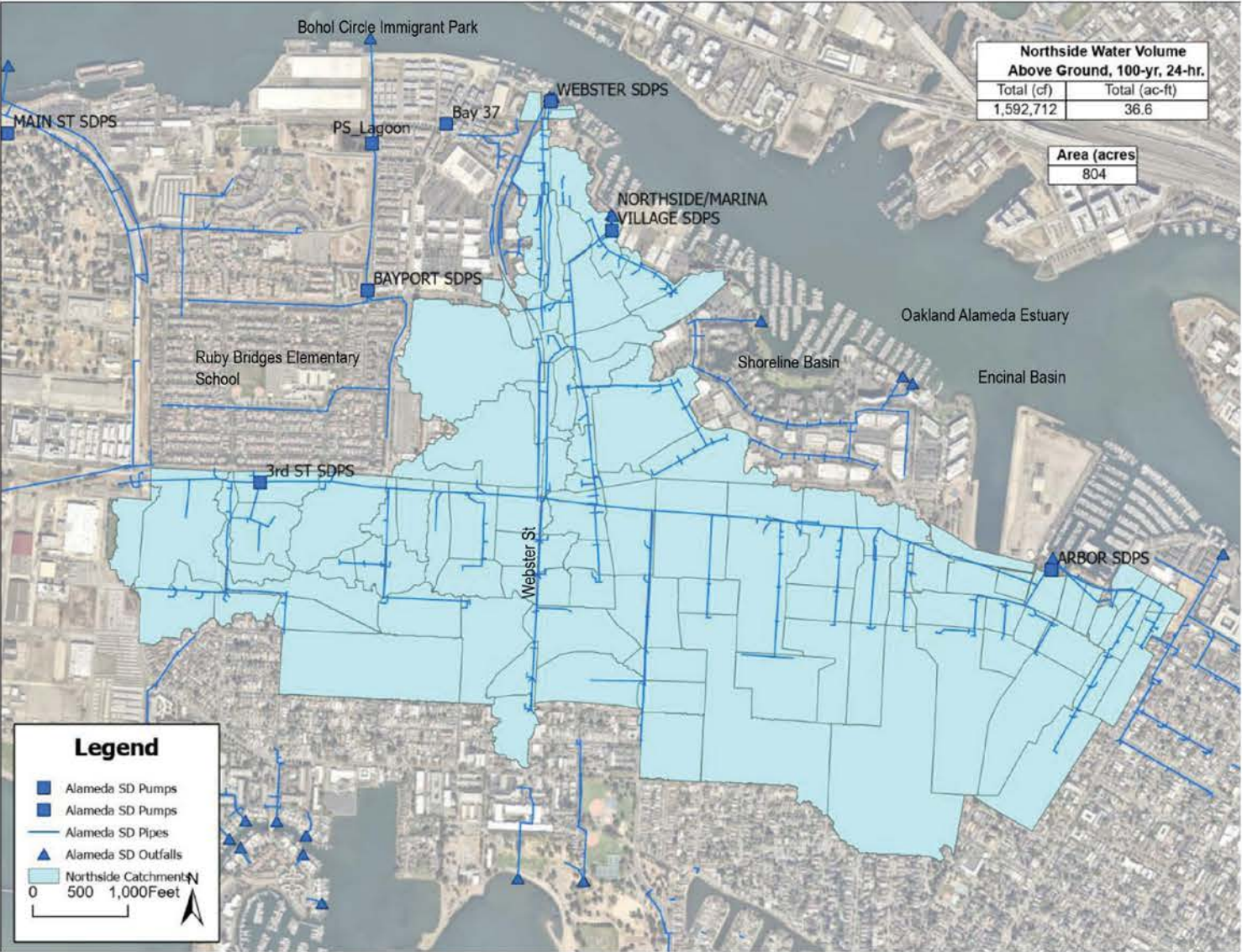
Stormwater Modeling: Northside of Alameda

- System is designed for 10-year storm
- Volume of water that does not fit in storm drain system after 100 yr, 24-hr storm: 36.6 acre-feet
- Analysis includes stormwater detention for today's volume with added capacity for future increases

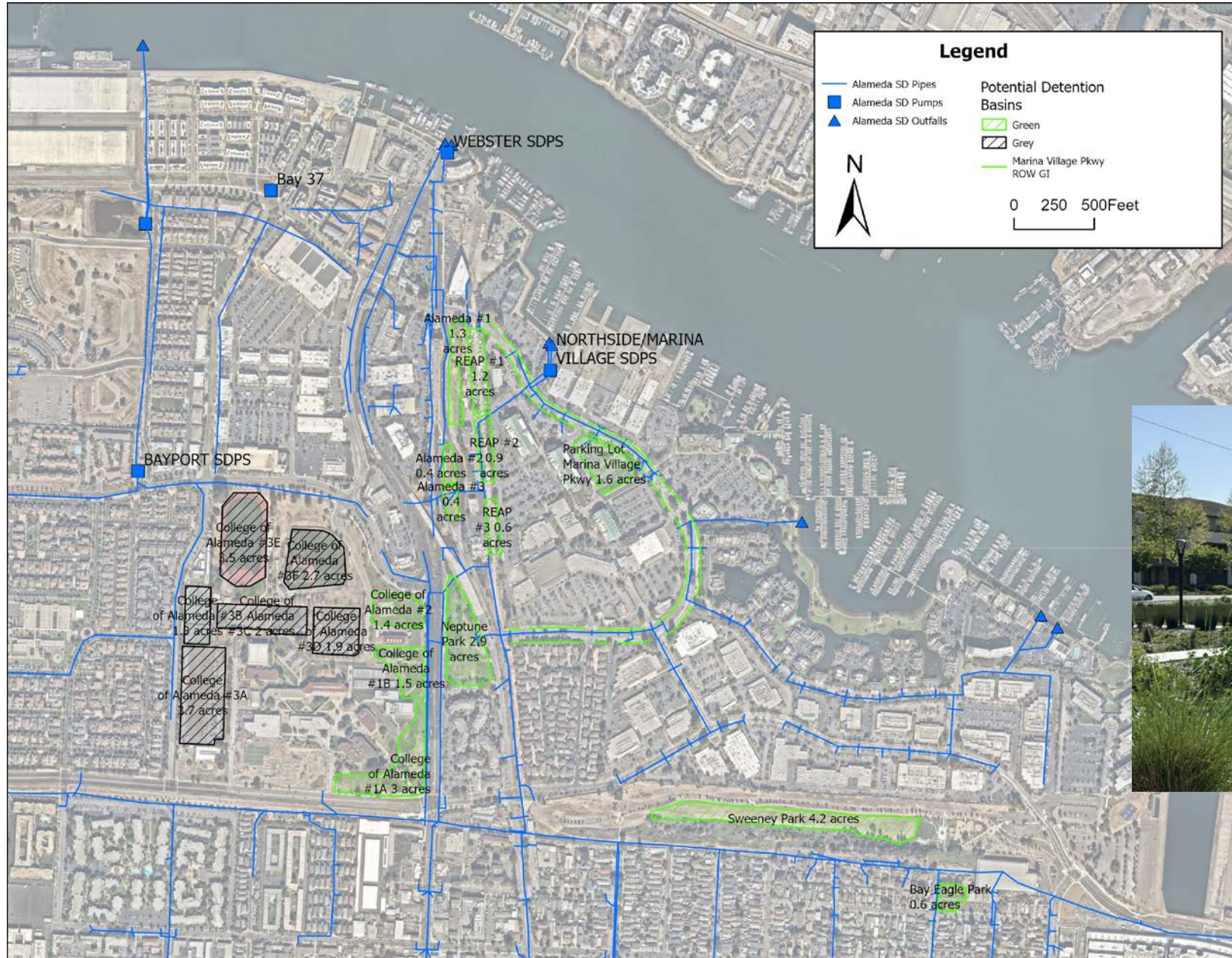
Estimated Future Precipitation % Increase With Climate Change

		10-yr	100-yr
2050	3-hr	21.6%	25.8%
	24-hr	17.9%	22.1%
2060	3-hr	27.8%	32.7%
	24-hr	22.2%	26.8%
2070	3-hr	33.7%	39.3%
	24-hr	25.9%	31.2%
2080	3-hr	40.7%	47.1%
	24-hr	30.7%	36.6%
2090	3-hr	49.6%	56.9%
	24-hr	37.1%	43.7%
2100	3-hr	59.0%	67.2%
	24-hr	43.6%	51.0%

San Francisco Bay Area Domain SSP5-8.5



Potential Inland Detention Basin Locations



- Basins store more water
- Storm drains pump water to bay at low tides within 72 hours
- Most polluted street runoff heads to storm drain system

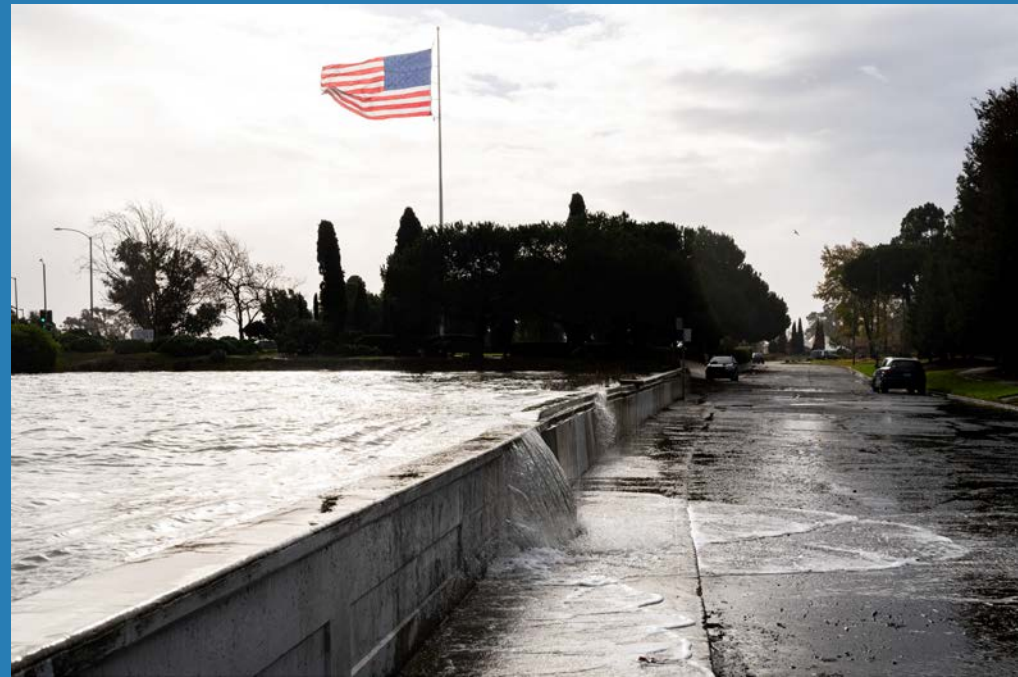


Alameda Inland – Detention Basin Concept Plans

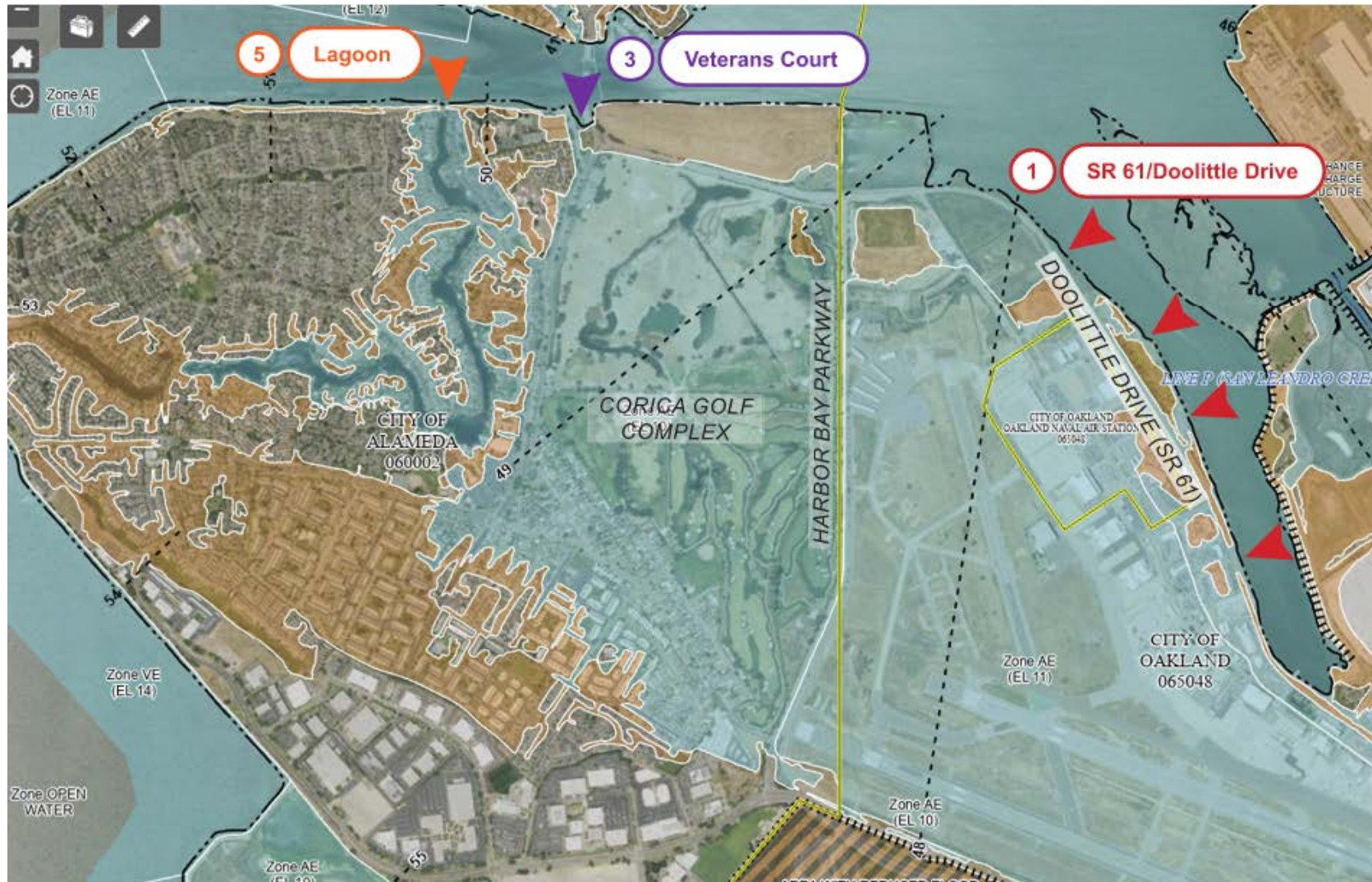
Alameda #2 & #3



Bay Farm Island Adaptation Project



BFI Project: Current Flood Conditions



BFI Project: Near-Term Project Area

NORTHERN SHORELINE

LAGOON OUTFALL

VETERANS COURT



BFI Project: Preferred Near-Term Alternative

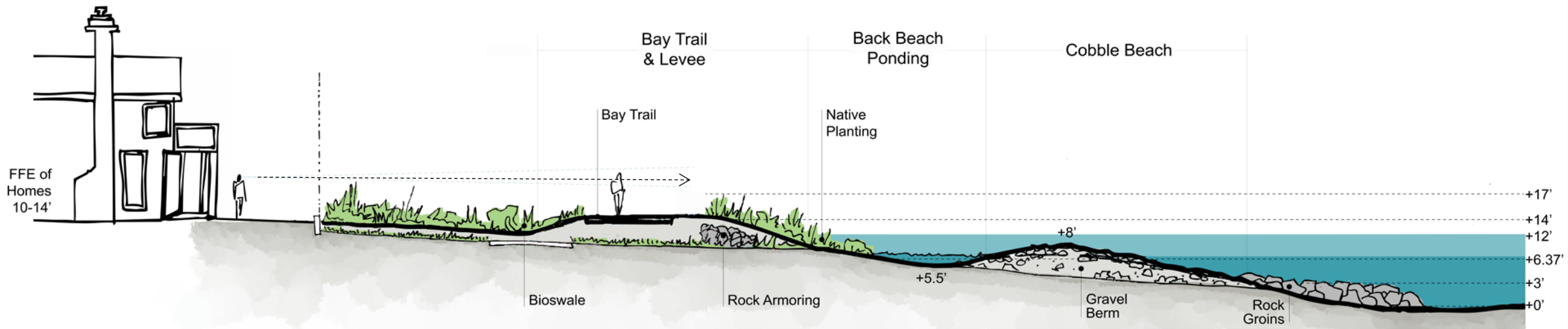
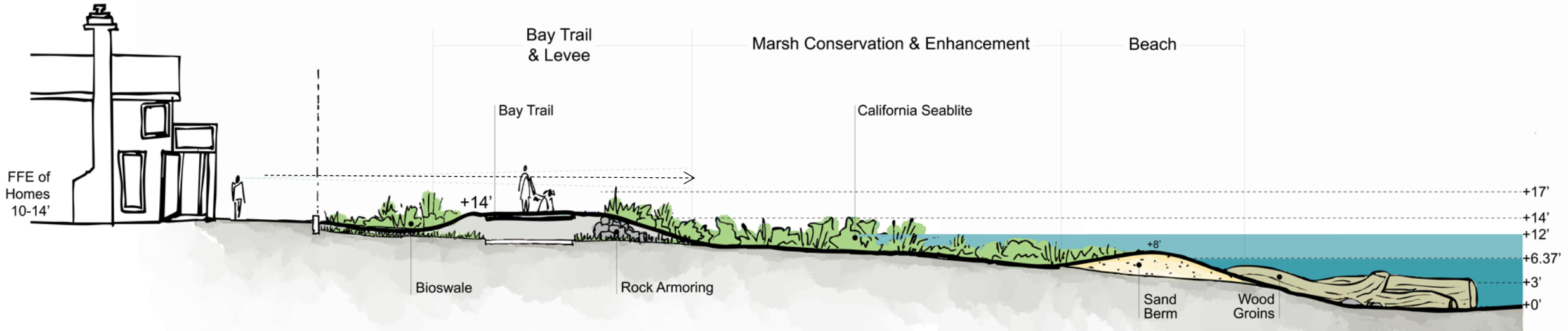
- Nature-based Solutions
- Levee: Lagoon to Veterans Court
- Lagoon: New tide gate, pump station & gravity pipe
- Marsh expansion

Nature-Based Solutions

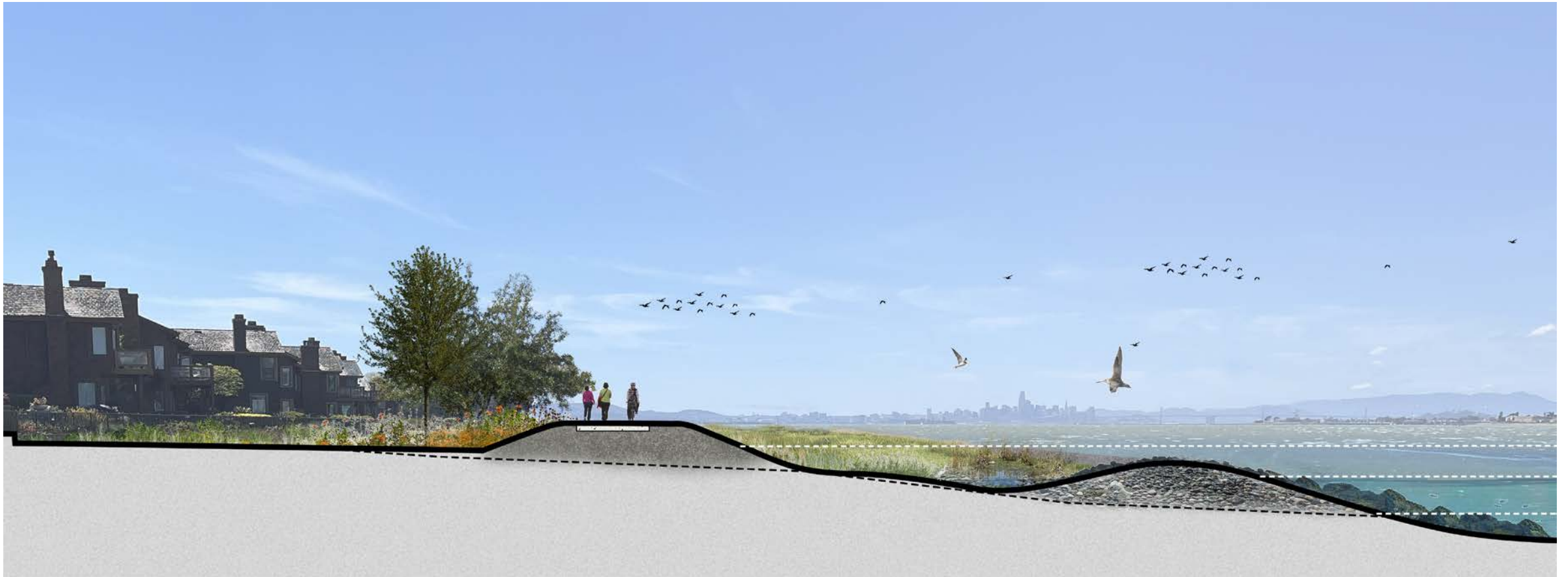
Levee & Floodwall & Nature-Based Solutions



BFI Project: Levee / Bay Trail / Marsh Expansion



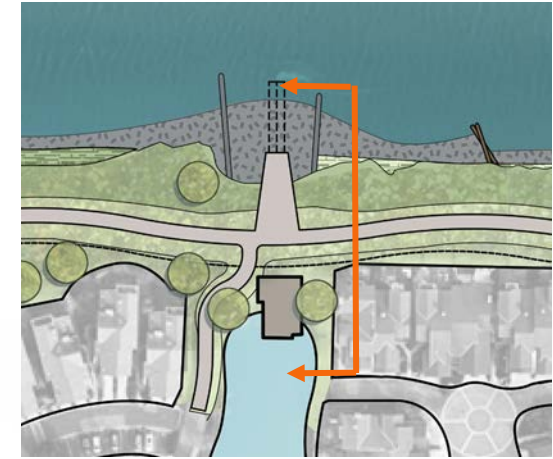
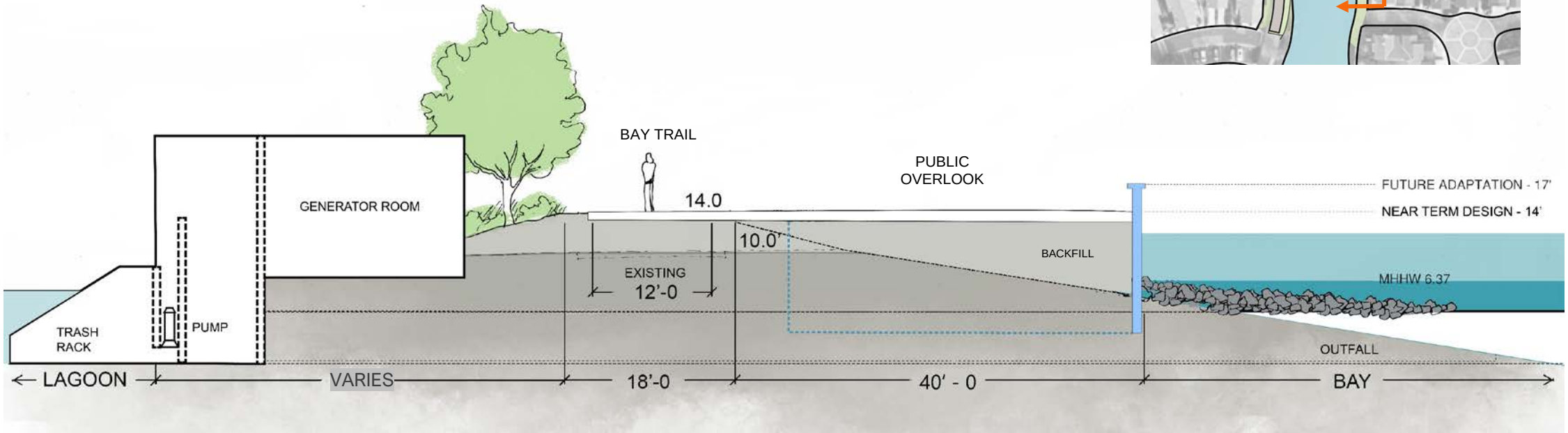
BFI Project: Levee, Bay Trail & Nature-Based Solutions



Perspective View of Typical Bay Trail condition



BFI: Pump Station & Tide Gate Replacement



- Interior drainage to comply with FEMA 65.10
- Maintain existing lagoon circulation & stormwater management goals
- Clarify Operations & Maintenance responsibilities
- Obtain right-of-way or easements for gravity pipe



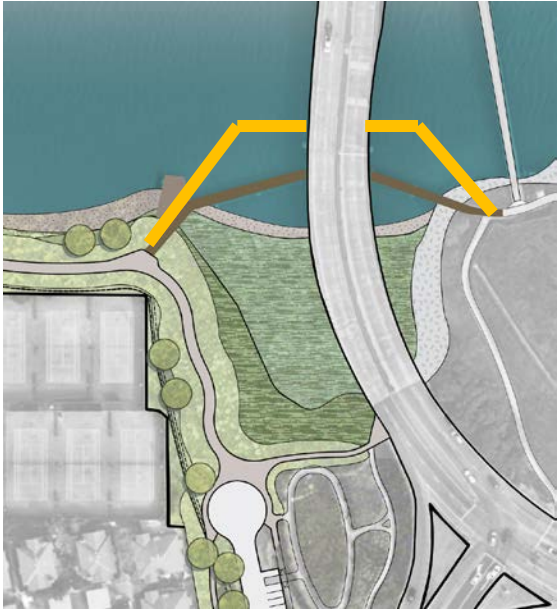
BFI Project: Veterans Court Adaptation



- Expands marsh to enhance habitat
- Shortens road to Veterans Park
- Maintains 20-25 parking spaces, including ADA spaces.
- Does not include wooden bicycle/pedestrian bridge – analysis for replacement in near term



BFI Project: Bay Trail Bridge Adaptation Alternatives (Phase 2)



Alternative 1
Bridge Relocation Outboard



Alternative 2
Underpass Crossing



Alternative 3
Bridge Over Land



Alternative 4
At Grade Crossing



FEMA BRIC Grant: Near-term Project (Phase 1)



BRIC federal \$50M
(90%)

Non-federal \$5.5M
(10%)

Total \$55.5M

***Recommended for
further review by FEMA***

Start: 2025?

Construction: 2030



Subregional Adaptation Planning

January 2025



Subregional Adaptation Plan Process

Oct 2023 – Mar 2024

Charting the Course

Apr 2024 – Mar 2025



Strategy Development

Apr – Jun 2025

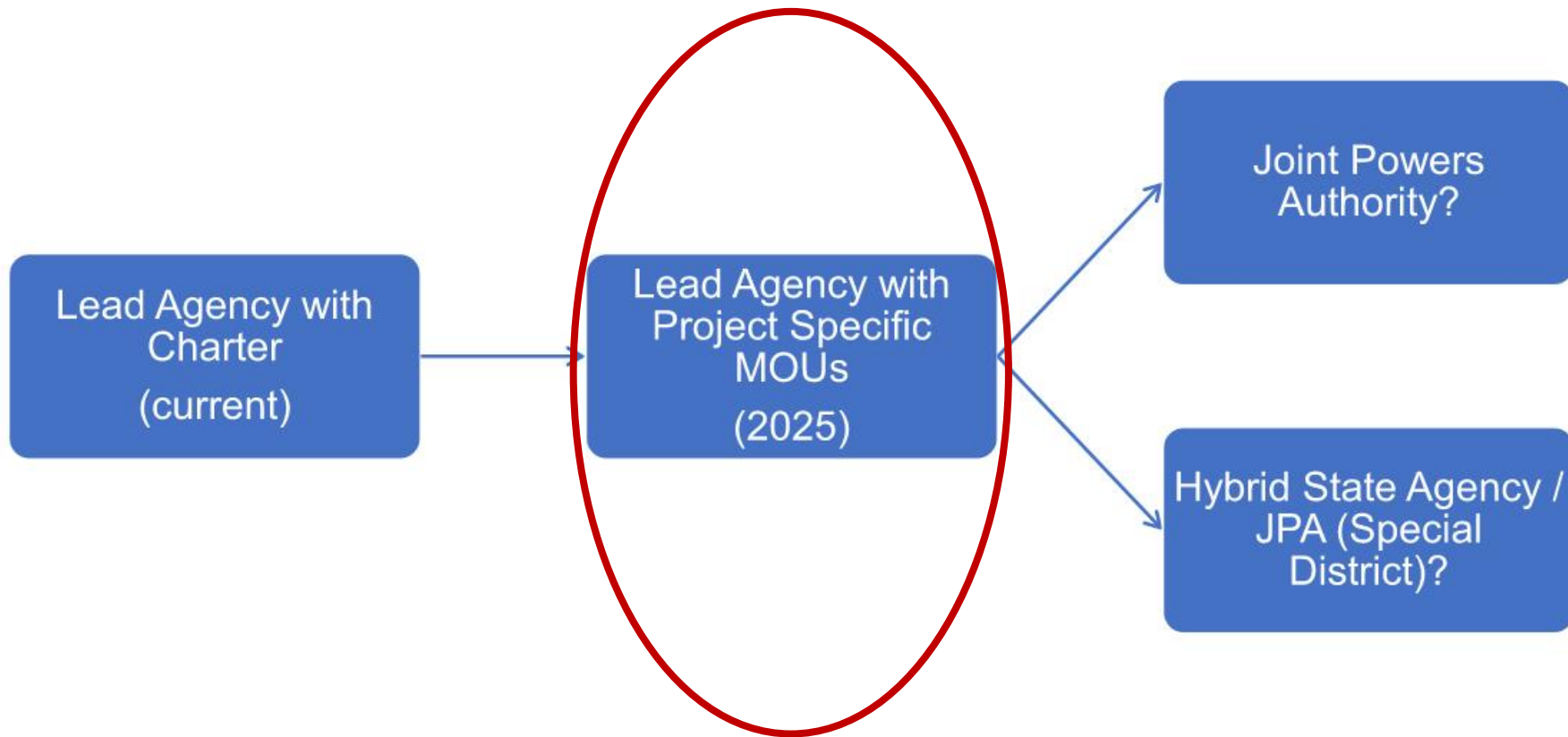
Public Input &
Strategy Refinement

Jul – Sep 2025

Plan Completion &
Council Hearings



Governance: Recommended Evolution



Governance: Project-specific MOUs

Project	Funding source	MOU partners	Other potential partners
Bay Farm Island/Doolittle Project	BRIC	• City of Alameda • City of Oakland • Port of Oakland	• Caltrans • EBRPD • Community Partners
Estuary Project	WRDA	• City of Alameda • City of Oakland • Port of Oakland	• Caltrans • Community Partners



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Learn more:

www.alamedaca.gov/OaklandAlamedaAdaptationCommittee

