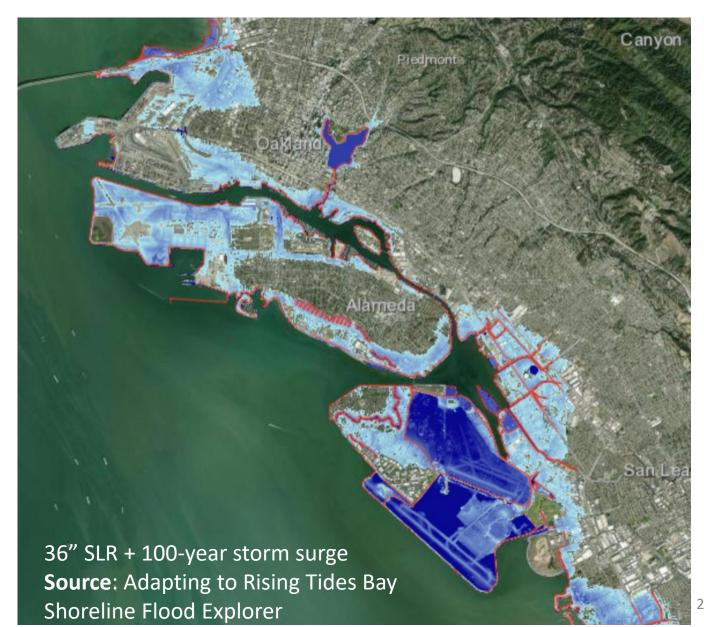


### Background: Sea Level Rise

2/3 of CA impacts will be in Bay Area

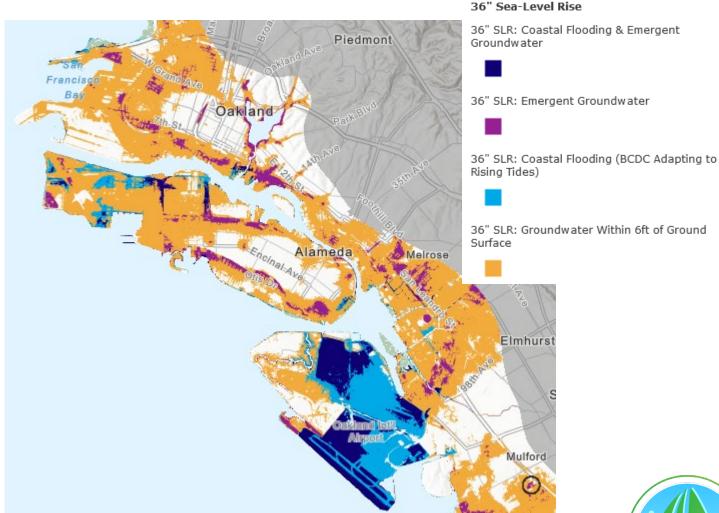
- Already seen:+8 inches SLR
- **Projected by 2050:** 9 to 12 inches
- Projected by 2100: up to 4 feet
- Costs (2050): \$110 B (committed funds = \$5 B)





### Background: Groundwater Rise

- Flooding also from emergent groundwater
- Infiltration and corrosion underground
- Damage to roads and structures
- Contaminated sites
- Increased liquefaction

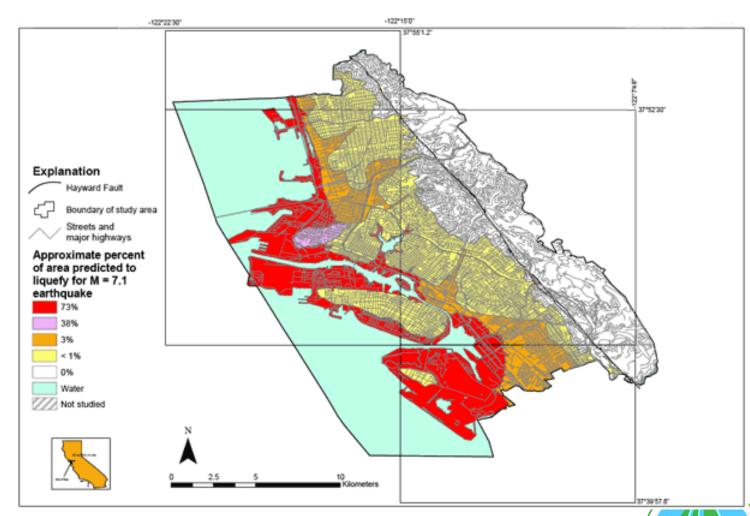


Source: SFEI Shallow groundwater response to sea-level rise



### Background: Liquefaction

- Same areas with rising groundwater
- Increases risk of liquefaction
- Risk to structures and infrastructure in lowlying areas



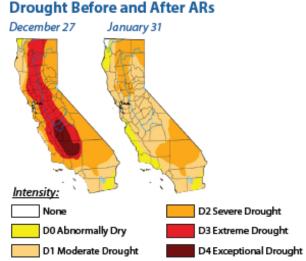
Shaking Hazard Map for Northwestern Alameda County

Source: USGS Open-file Report 02-296

### Background: Atmospheric Rivers

- Provide 50% of California's water supply
- Cause 90% of California's floods
- Expected to become stronger and wetter
- Expected to contribute to a larger share of precipitation with long periods of dry conditions





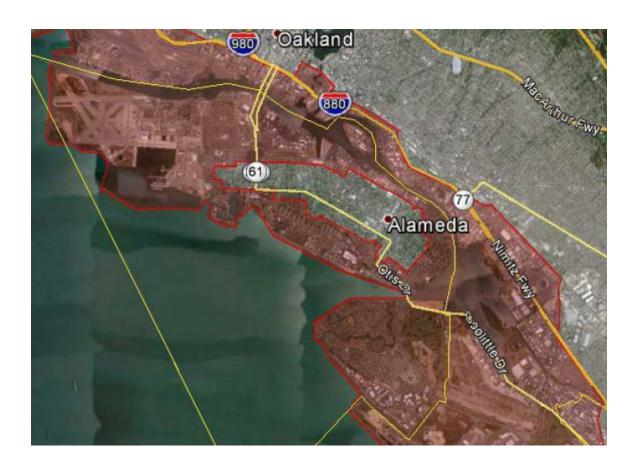
Source: Center for Western Water and Water Extremes https://cw3e.ucsd.edu/media\_portal/





## Background: Tsunamis

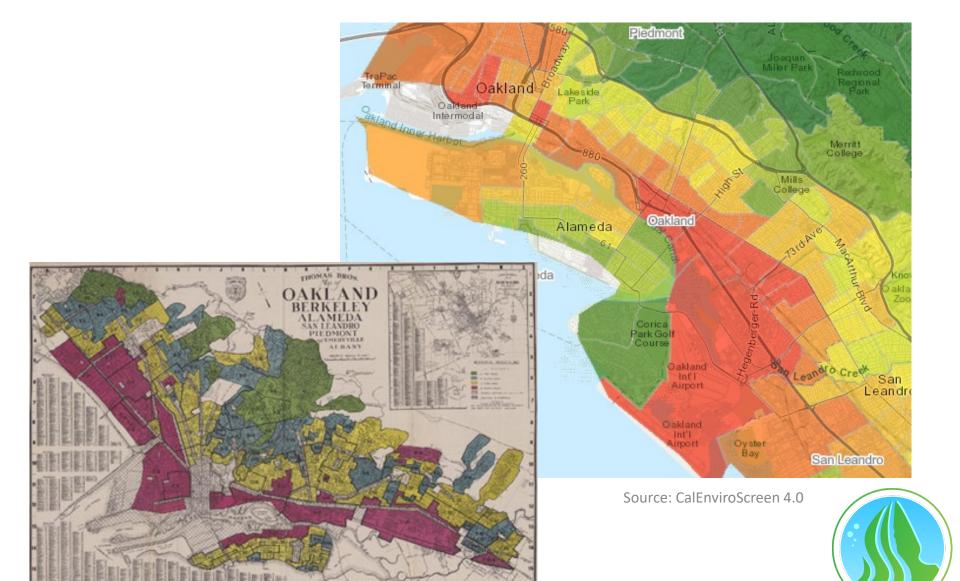
- Low probability of impact
- High risk of damage
- Caused by earthquakes, landslides, volcanic eruptions or meteors
- Can last 24 hours or more
- First surge not the largest





### Background: Vulnerable Communities

- Acknowledge injustices and collective loss
- Consider who will suffer and who will lose money
- Address lived experience and today's issues





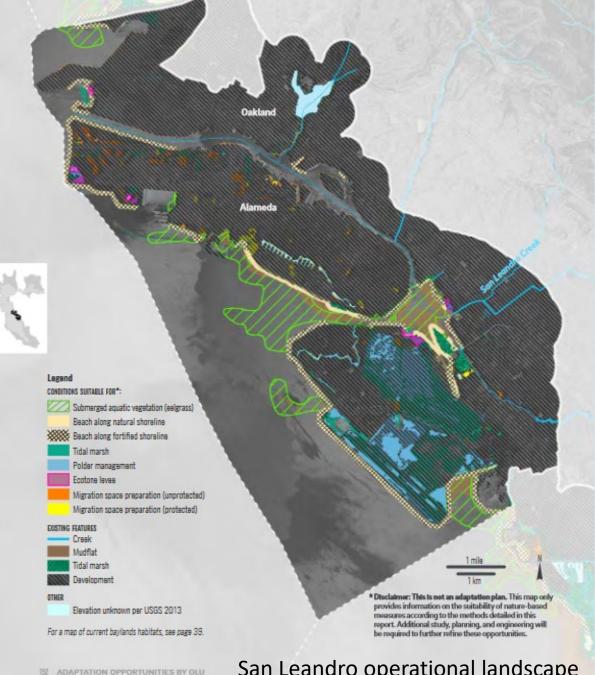


## RESILIENT

**BAY AREA CHALLENGE** 

BY

DESIGN



The Oakland Alameda Adaptation Committee (OAAC) coordinates the Oakland Alameda sub-region flood and adaptation projects to protect and restore water quality, habitat, recreation and community resilience.



San Leandro operational landscape unit (one of 30 OLUs in Bay Area)

### **OAAC: Steering Committee**

#### **Agencies**

- Caltrans
- City of Alameda
- City of Oakland
- East Bay Regional Park District
- Port of Oakland
- S.F. Bay Regional Water Quality Control Board
- Alameda County Flood Control Agency

#### **Community Partners**

- Community Action for a Sustainable Alameda
- Greenbelt Alliance
- Hood Planner/East Oakland Neighborhood Initiative
- Sogorea Te' Land Trust
- West Oakland Environmental Indicators Project





**Caltrans**®



















### **OAAC:** Activities To Date

- Met quarterly since 2021 (with 27-62 participants)
- Formed steering committee and two subarea working groups
- Adopted charter and objectives
- Participated in fieldtrips and in-person meeting
- Created logo by Alameda High School students
- Secured funding and hired consultant team
- = trust building



# OAAC: Funded Projects (2023-2025)

Project Description	Funding	Area
1. Sub-regional Adaptation Plan <a href="https://www.alamedaca.gov/AdaptationLongTermPlan">www.alamedaca.gov/AdaptationLongTermPlan</a> (Grant End Date: October 31, 2025)	\$300,000 SFEP \$540,000 NFWF = \$840,000	Oakland Alameda sub-region
2. Oakland-Alameda Estuary Adaptation Project <a href="https://www.alamedaca.gov/AdaptationEstuary">www.alamedaca.gov/AdaptationEstuary</a> (Grant End Date: February 28, 2025)	\$425,000 Caltrans \$75,000 Alameda = \$500,000	Alameda Tubes area & Oakland's Jack London District
3. Bay Farm Island Adaptation Project <a href="https://www.alamedaca.gov/AdaptationBayFarmIsland">www.alamedaca.gov/AdaptationBayFarmIsland</a> (Grant End Date: September 29, 2025)	\$1.5 million FEMA \$530,000 Alameda = \$2,030,000	Bay Farm Island & Doolittle Drive
Total Funding	\$3.37 million	

### Consultants

- Role: Lead technical analysis for three funded adaptation projects
- **Budget**: \$2,767,000
- **Selected** by Steering Committee:
  - CMG Landscape Architecture (prime)
    - Pathways Climate Institute
    - Moffatt & Nichol
    - ESA
    - Schaaf & Wheeler
    - Earth Mechanics, Inc.
    - NHA Advisors











Schaaf & Wheeler CONSULTING CIVIL ENGINEERS





### **Community Partners**

GREENBELT ALLIANCE

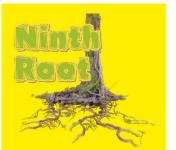
 Role: Lead community engagement process for three funded adaptation projects

• **Budget**: \$323,000



- Greenbelt Alliance (with Hood Planning Group, Ninth Root, Sogorea Té Land Trust and REAP Climate Center)
- Community Action for a Sustainable Alameda (CASA)











### Scientific Advisors

• Role: Provide technical review of documents

• **Budget**: \$35,000

• Selected San Francisco Estuary Institute





### Sub-regional Adaptation Plan

- **Purpose**: Identify actions over time as shoreline changes to protect communities
- Tasks:
  - Agency coordination
  - Governance structure analysis
  - Community engagement
  - Draft and final long-term plan
- **Budget**: \$840,000
- Terminates: October 31, 2025

www.alamedaca.gov/AdaptationLongTermPlan





### **Governance Interviews and Best Practices Approach**

Part 1: Education, Interviews, and Focus Group with OAAC Members

**Winter 2024** 

**Spring 2024** 

**Part 2: Best Practices Review** 

Includes presentations to Steering Committee

Governance options shared during 1st round of outreach

**Early Summer 2024** 

**Summer 2024** 

**December 2024** 

**Part 3: Develop Draft White Paper** 

**Part 4: OAAC Workshop** 

**Part 5: Finalize White Paper** 



### Four Basic Governance Options

Lead Agency with Non-Binding MOU (or Charter)

#### **Description**

 Lead agency manages projects and contracts with a non-binding MOU with other public entity stakeholders

#### **Examples**

- Highway 37
- North Richmond
- Oakland Alameda Adaptation Committee

#### **Description**

 Lead agency manages projects and contracts with a legally binding MOU/MOA with other public entity stakeholders

#### **Examples**

South Bay Salt Restoration Project

Lead Agency with Legally Binding MOU or MOA

Joint Powers Authority

#### **Description**

Agencies enter into a Joint Powers
 Agreement, forming a new entity that
 can execute contracts, potentially levy
 fees or taxes, issue bonds, hire staff,
 and work collaboratively

#### **Examples**

 San Francisquito Creek JPA, Hayward Area Shoreline Planning Agency, Marin Wildfire Prevention Authority

#### **Description**

- A new agency is created through State legislation to address a specific issue
- The agency can: execute contracts, potentially levy fees or taxes, issue bonds, hire staff, work collaboratively, and may have other special powers authorized by legislation

#### **Examples**

 San Francisco Bay Restoration Authority, Sacramento Area Flood Control Agency, One Shoreline, Fort Ord Reuse Authority Hybrid State
Agency / JPA
(Special District)



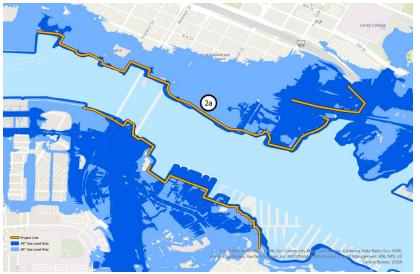
### Oakland Alameda Estuary Project

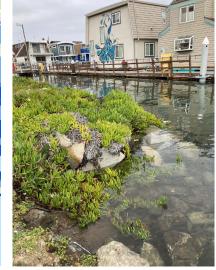
 Purpose: Develop concept to protect Jack London District, Alameda's northern shoreline, and Posey-Webster Tubes

### • Tasks:

- Alternatives
- Public engagement
- Concept (10% design)
- **Budget**: \$500,000
- Terminates: February 28, 2025









### Bay Farm Island Adaptation Project

 Purpose: Develop design for short-term fixes on northern waterfront and longterm plan for entire Bay Farm Island

#### • Tasks:

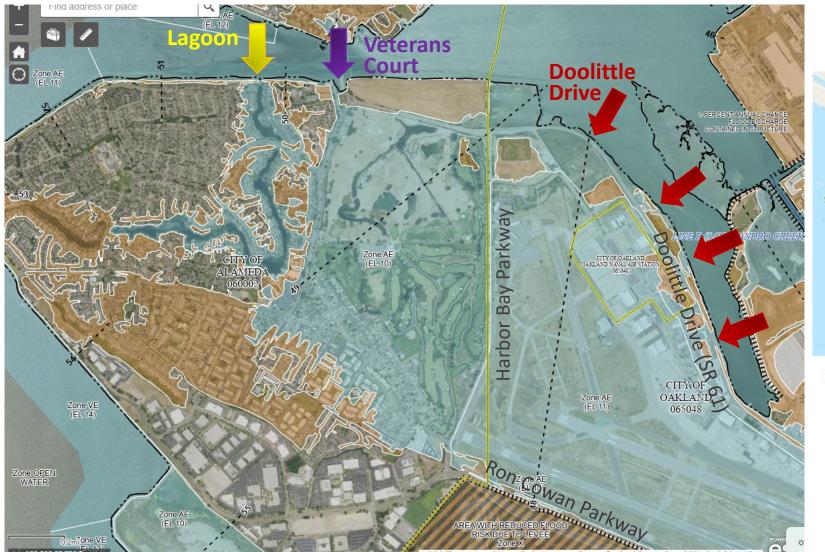
- Alternatives
- Public outreach
- Northern waterfront design
- Coordinate permitting
- Long-term concept
- Budget: \$2 million
- Terminates: September 29, 2025







## BFI Adaptation Project: Next Steps







# BFI/Airport CDRZ: BRIC Request



**BRIC federal:** \$50 m (90%)

Non-federal: \$5.5 m (10%)

**Total**: \$55.5 m

**Start:** 2025

**Construction**:

2028



### Next Steps

- 2023
  - Sept: Kick-off
  - Existing Conditions
  - Engagement Strategy
- 2024
  - Alternatives & Outreach
  - Seeking grant funding for next phases
- 2025: Concept Designs & Governance Recommendations
- 2025-2030: Design & Construction (pending funding)





#### Learn more: