



South Bay Salt Pond Restoration Project

Restoring the Wild Heart of the South Bay



April 2008



September 2009



May 2010



October 2010

SALT POND A21 SOUTH BAY SALT POND RESTORATION PROJECT

Kite aerial photographs of a small channel in the northeast corner following the 2006 breach to tidal flow. Field of view is ~ 120 feet. . C. Benton

California Adaptation Forum Conference

August 2, 2023 – Pomona, CA

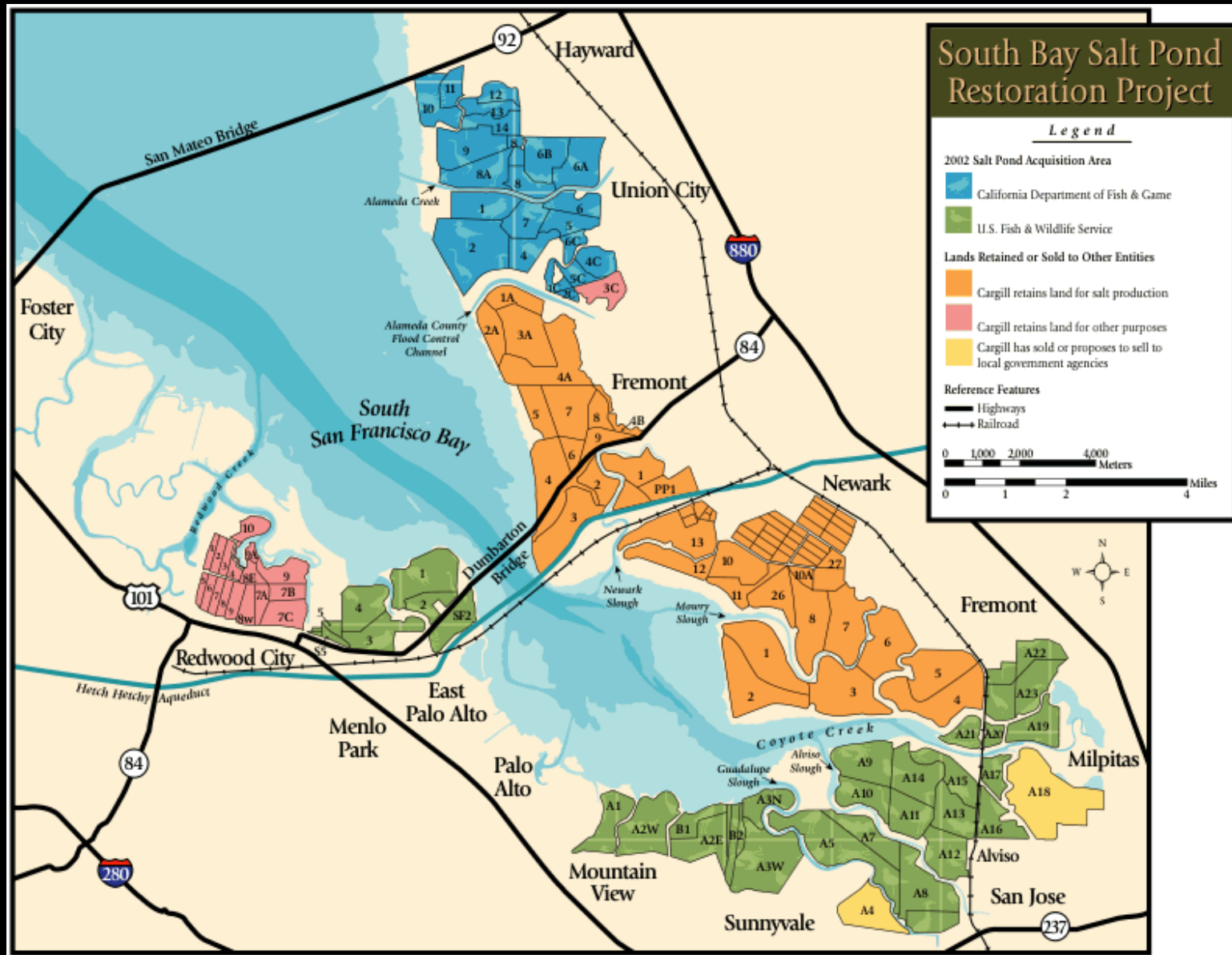
Dave Halsing, Executive Project Manager

SBSP Restoration Project

- 2003 w/ acquisition of 15,100 acres
- Restoration Plan 2003-2007
- Restoration began in 2008
- Phase 1 done in 2014
- Phase 2 underway now



SBSP Restoration Project

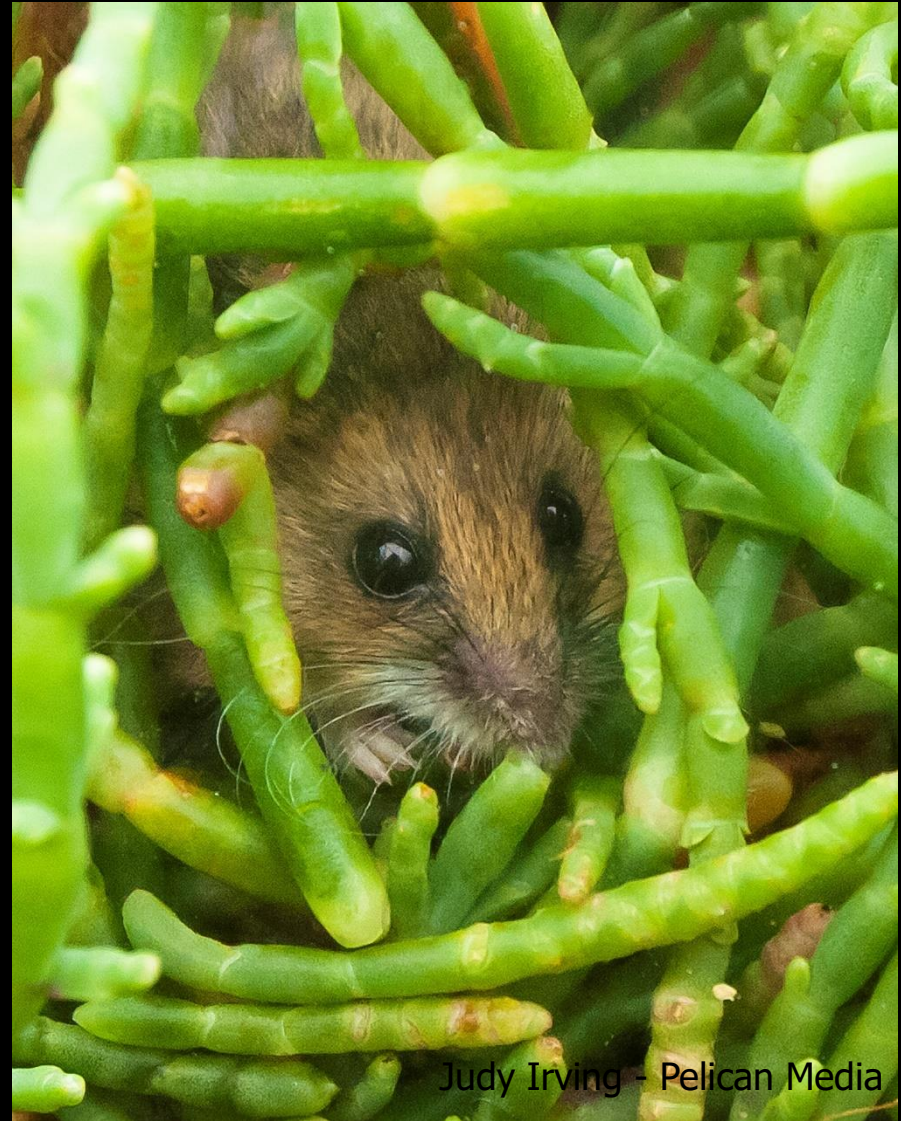




Callie Bowdish



Habitat Restoration



Judy Irving - Pelican Media



Flood Risk Management

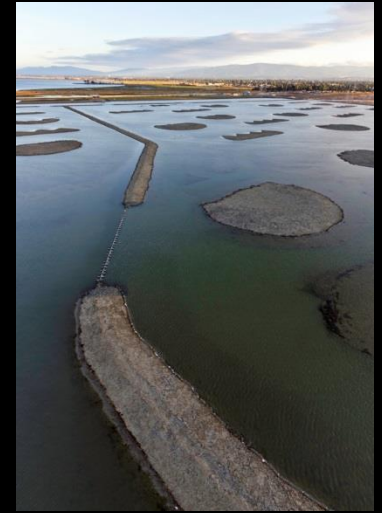




Public Access and Recreation

Jack Morris

Phase 1 Outcomes



**3,000 acres
of tidal &
muted tidal
restoration;
700 acres
managed
ponds**



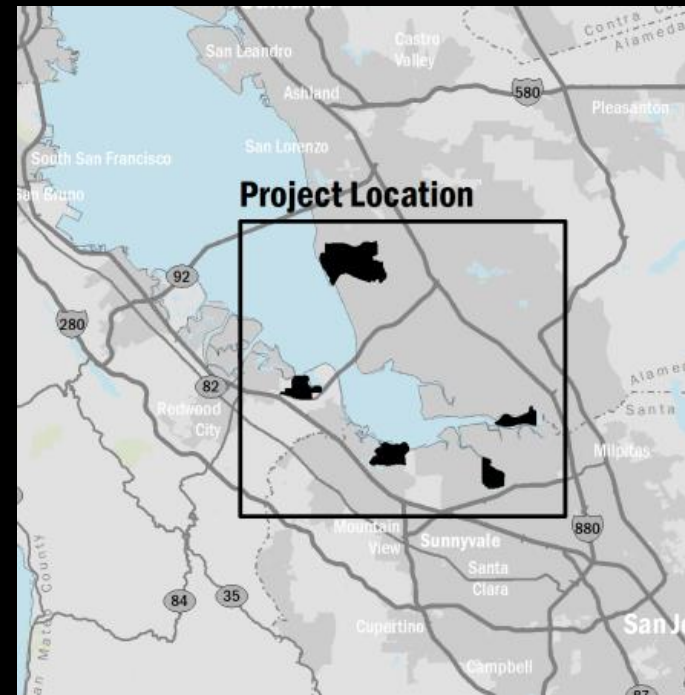
**7 miles of new trails
Kayak launch
Viewing platforms**



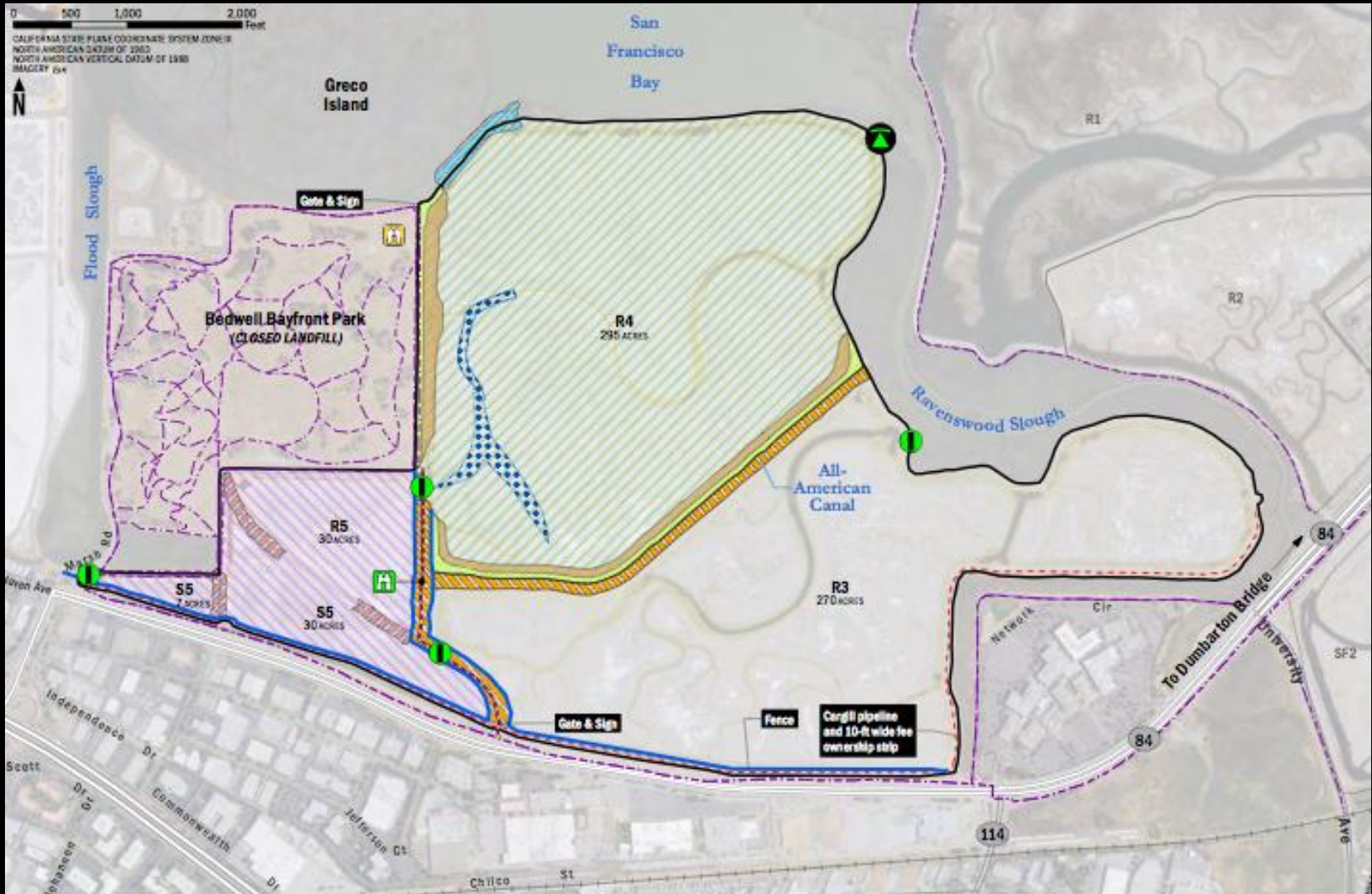
Kite photos by Cris Benton

Phase 2 Actions

- **5 locations**
- **2,300 acres tidal marsh**
- **1,150 acres enhanced ponds**
- **5.5 miles of trail**
- **6-8 viewing areas**
- **Modifying 2 Phase 1 sites**



Implementation Challenges



Ravenswood as a case study

Balance is a Challenge

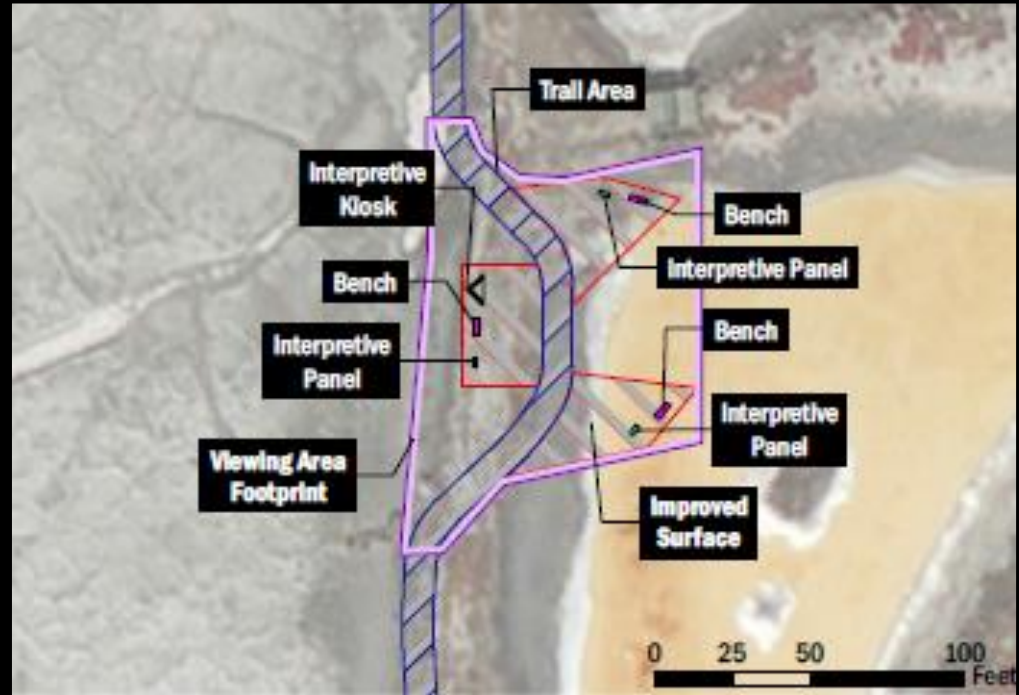
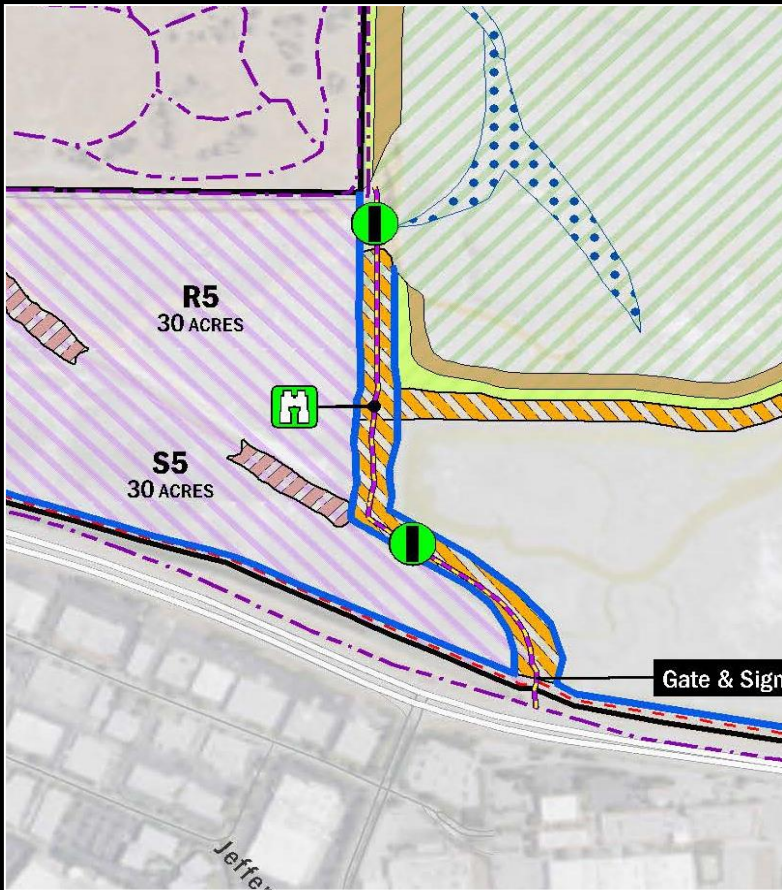
- **Incorporating recreation**
- **Work in developed areas**
 - **Flood management**
 - **Const'n impacts**
 - **Easements**
- **Clean fill**
- **Cost vs speed**
- **Env. Permitting**
- **Grant timelines**



Habitat Types

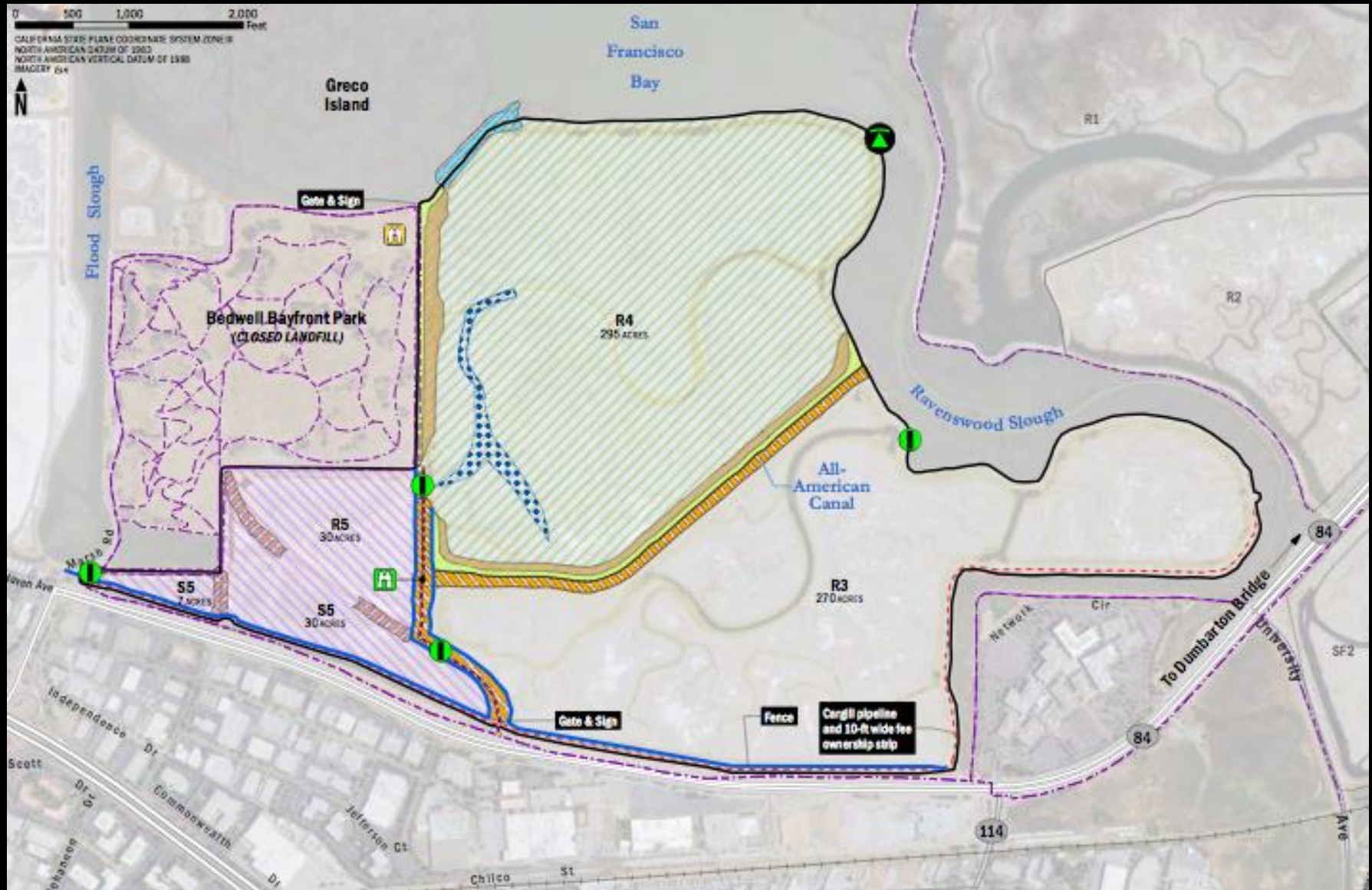


Public Access

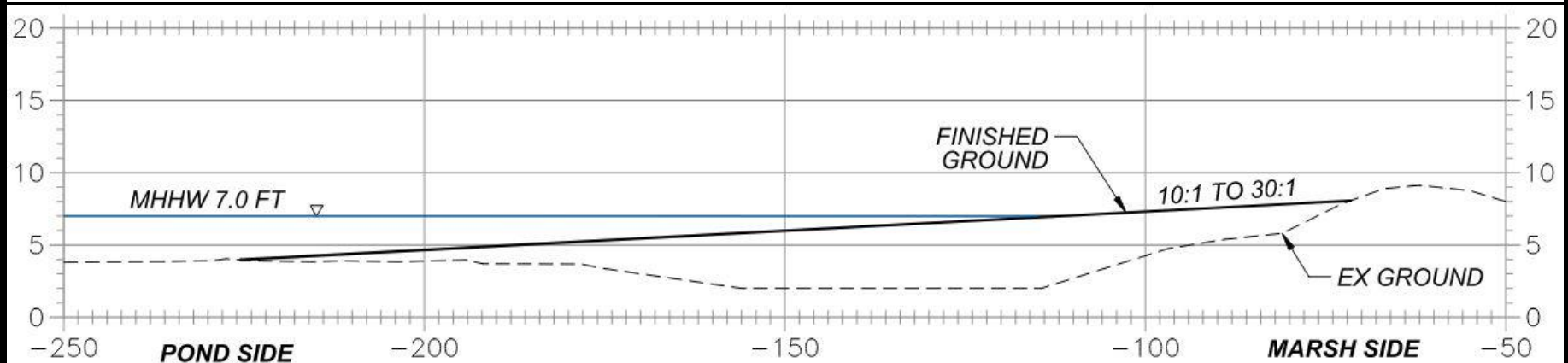
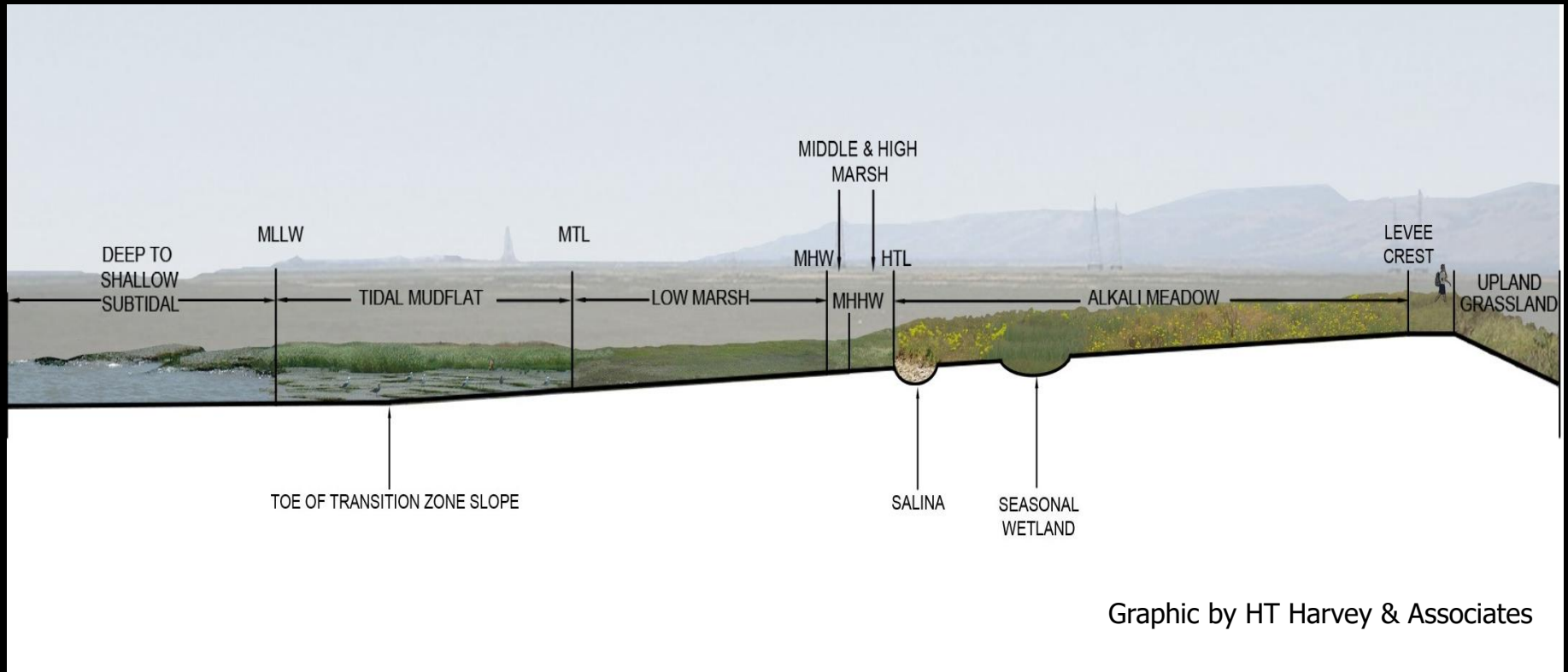


Three red outlined areas above sum to 9,960 square feet.
Each faces a different restoring habitat.
Will be elevated several feet above surrounding areas.

Managing Tides Needs Dirt



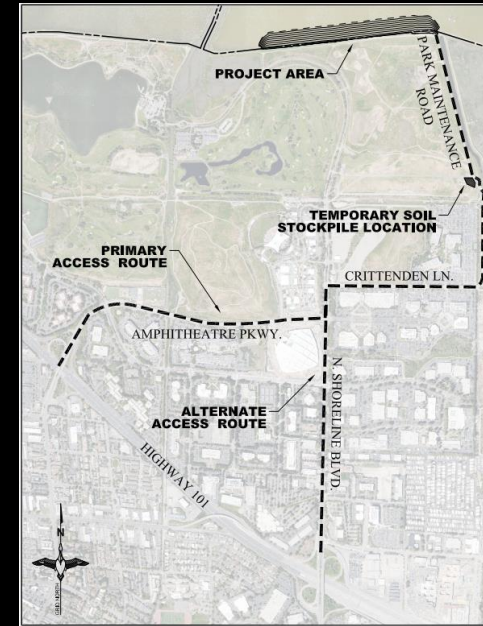
Habitat Transition Zones



Clean Dirt Is Hard To Find



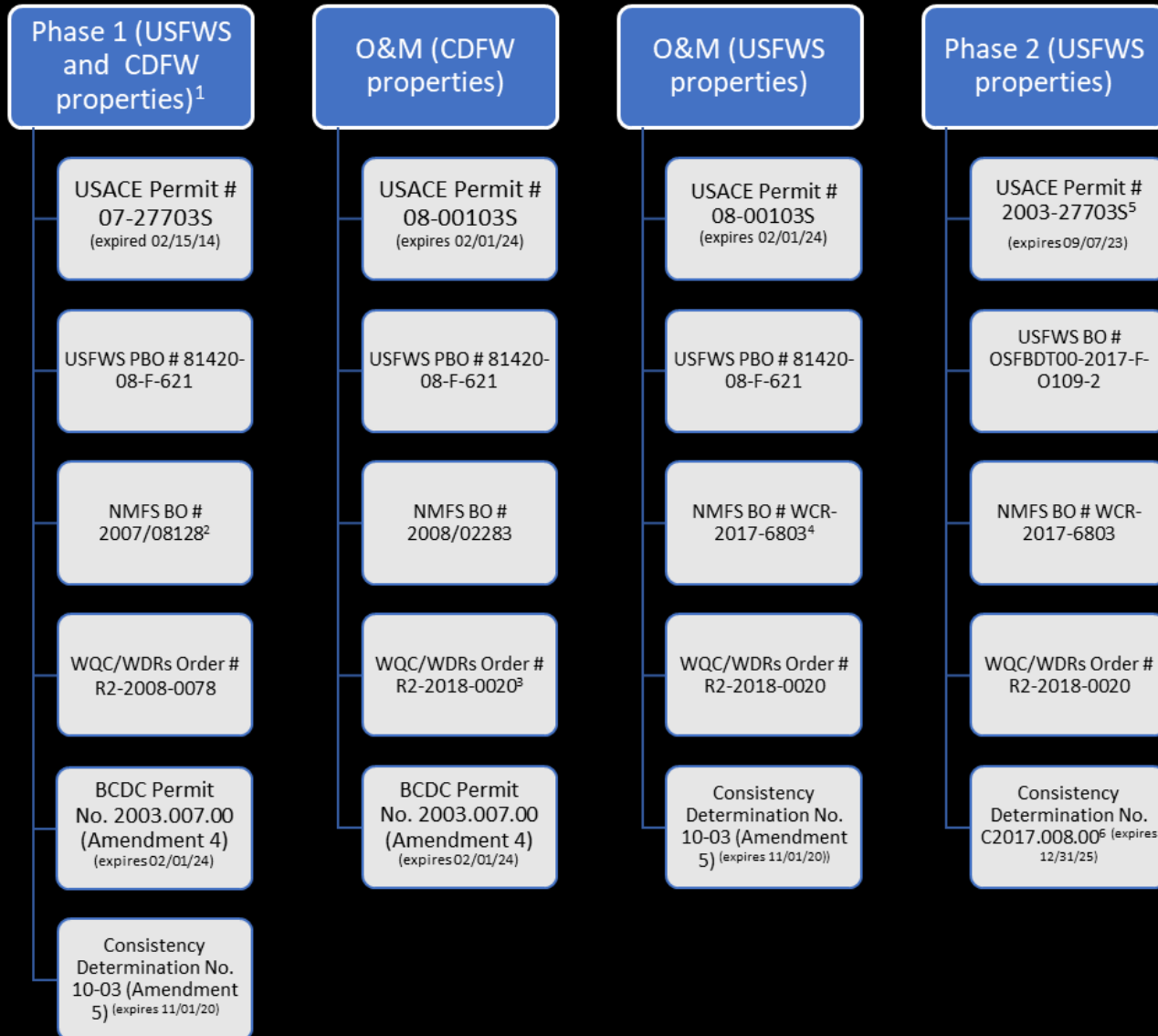
Neighbors Everywhere



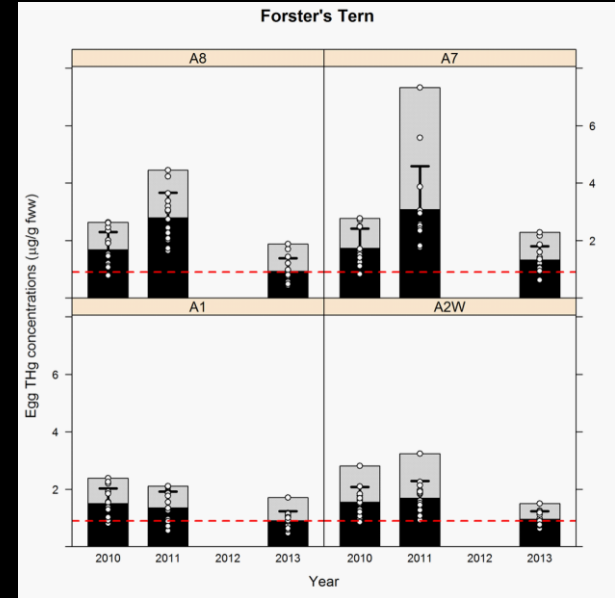
-  Flagger
-  PSEC Construction Yard
-  Truck Route
-  K-Rail
-  Temporary Fence
-  Pedestrian/bicyclist entrance access route



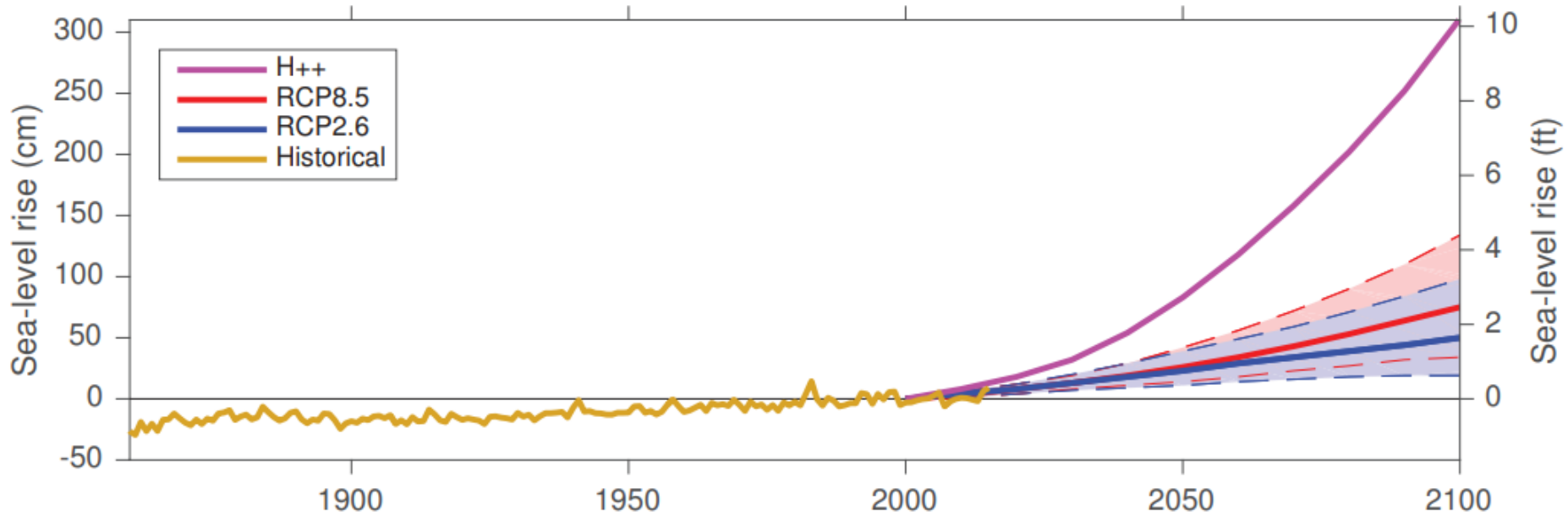
Permitting



Required Monitoring



Time – Not On Our Side



Thank You!

www.southbayrestoration.org
Follow us on Facebook

facebook



Name:
South Bay Salt
Pond Restoration
Project



Dave Halsing
dave.halsing@scc.ca.gov
650-814-0588

Calabazas/San Tomas Aquino Creek Marsh Connection Project

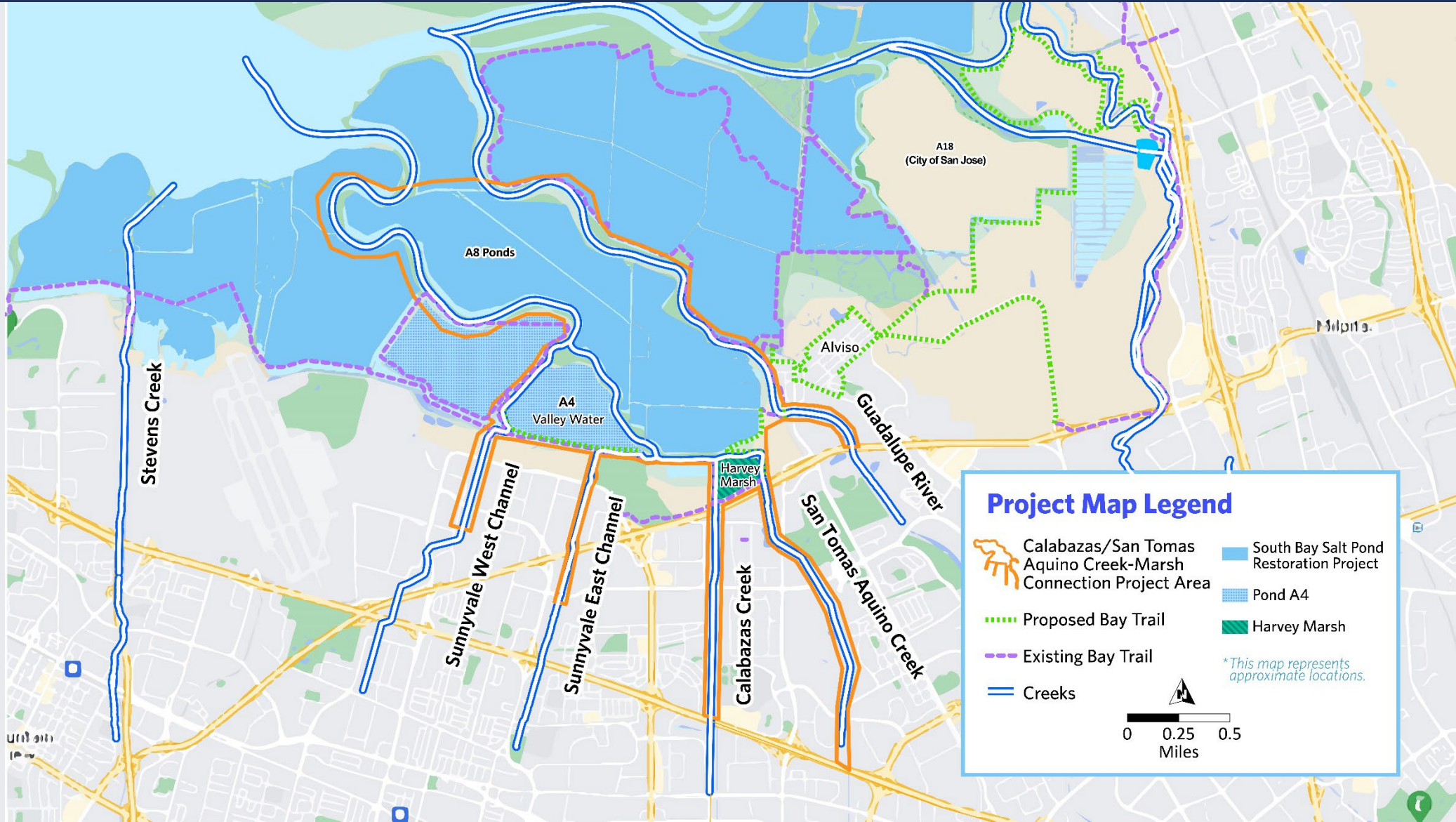
South Bay Salt Ponds
A8 Ponds, and Coyote Creek
Dick Lyons, 2017

Valley Water's Beneficial Sediment Reuse Effort

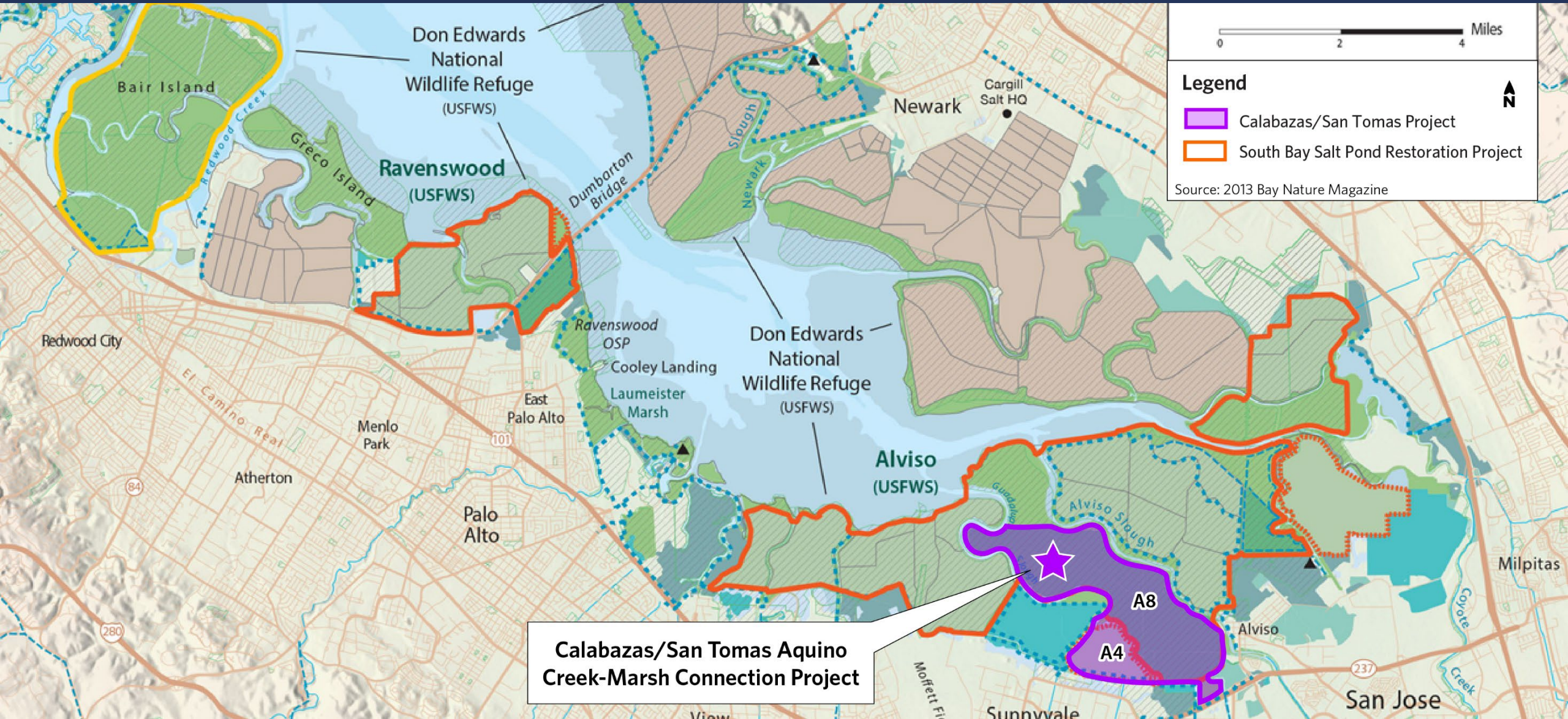
Judy Nam, Senior Water Resources Specialist
Aug 2, 2023



CALABAZAS/SAN TOMAS AQUINO CREEK-MARSH CONNECTION PROJECT



CONNECTION TO BROADER SOUTH BAY SALT POND RESTORATION



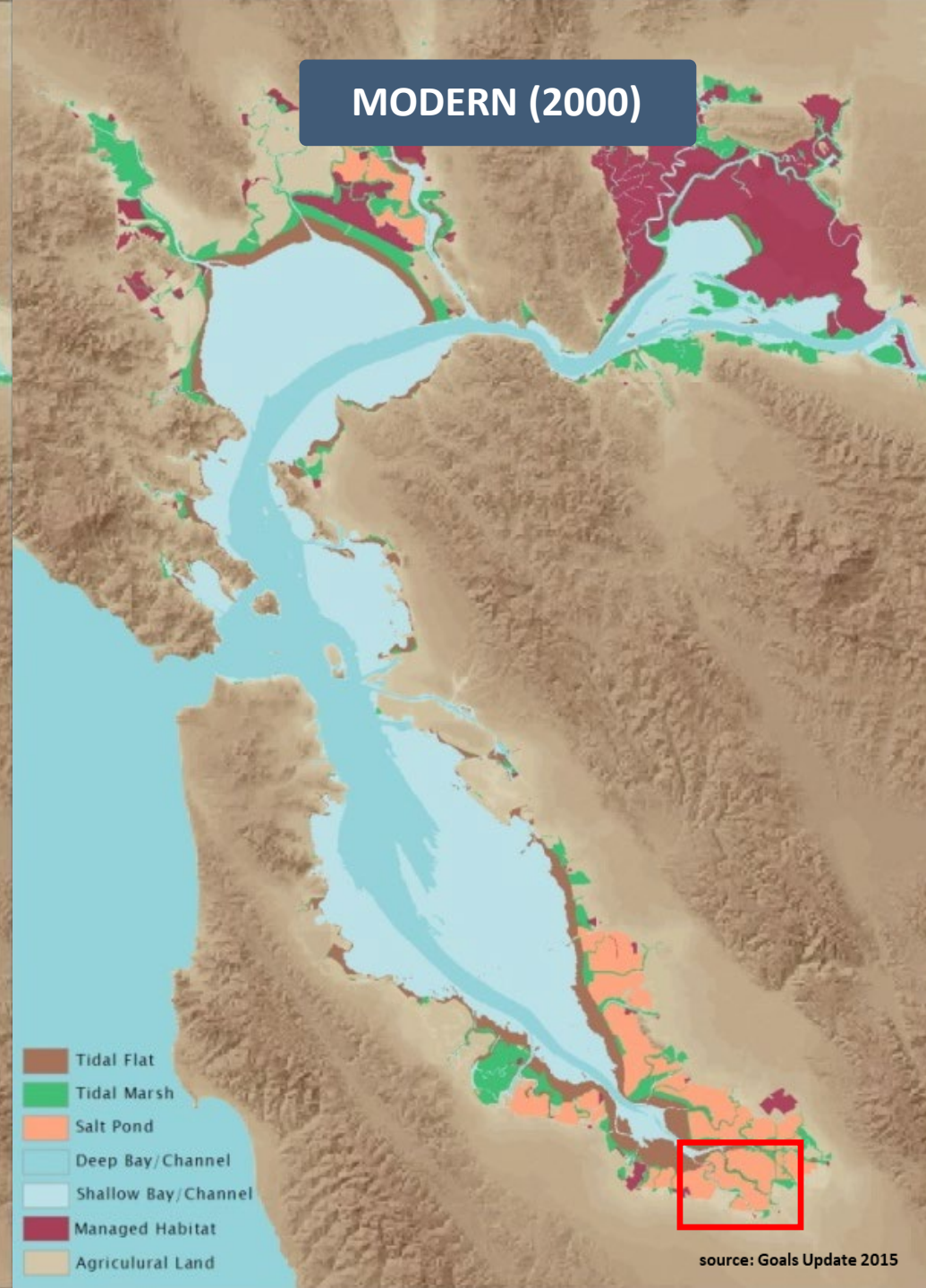
HABITAT RESTORATION

Since 1850, over 100,000 acres of tidal marsh lost around the Bay

HISTORICAL (1850)



MODERN (2000)







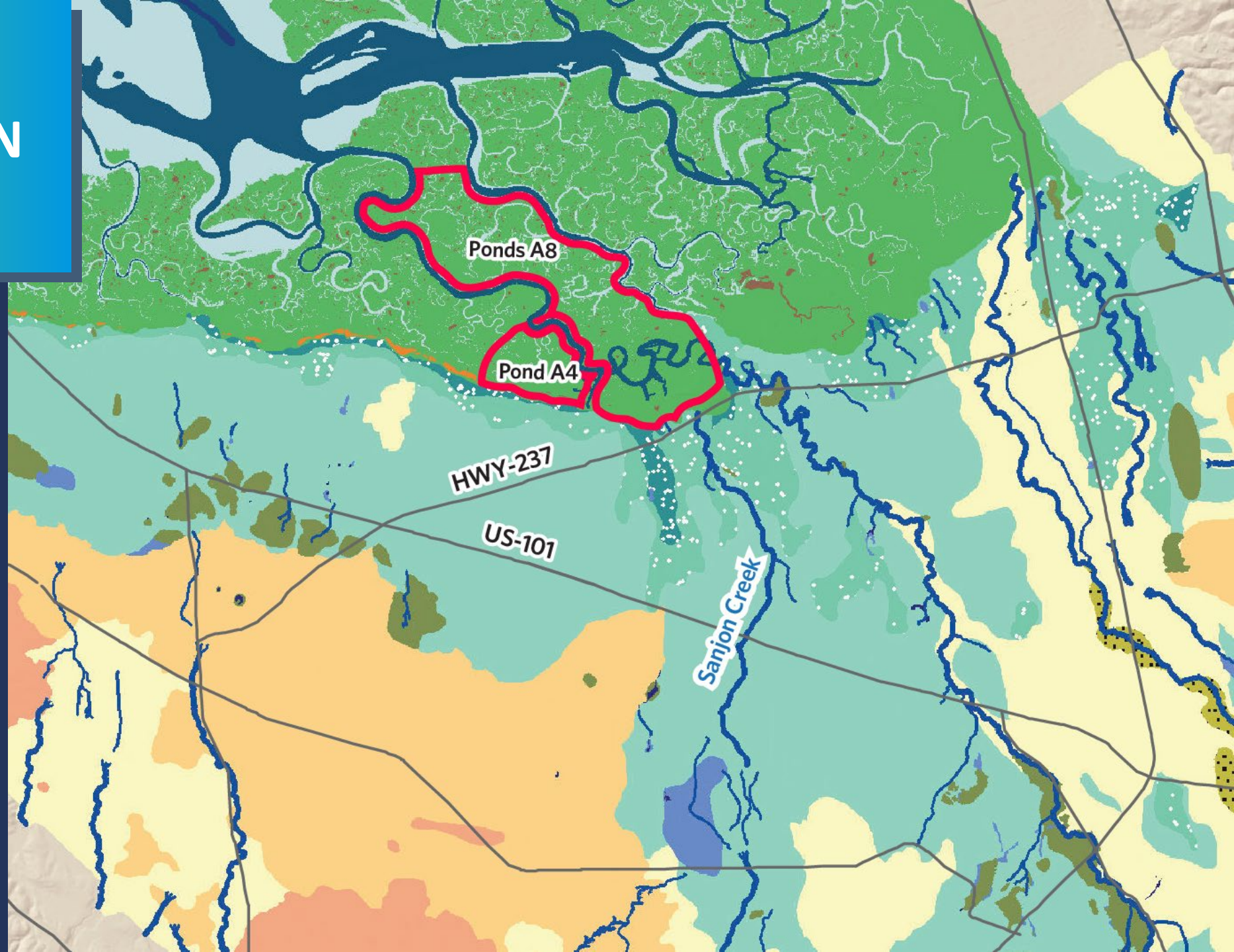
HABITAT RESTORATION

Project will capture sediments from creeks and lower South Bay to build up to 1,800 acres of new tidal marsh habitats.

Legend



-  Tidal Marsh
-  Wet Meadow
-  Oak Woodland
-  Project Area



Reuse of Excavated Sediment for Habitat Restoration



San Francisco Bay

A6

A7

A5

A8

A4

A8S

Inset showing Harvey Marsh

A8S

Calabazas Creek

237

San Tomas Aquino Creek


Great America Parkway

Old Mountain View Alviso Road

Legend



 Project Area


 Proposed breach

 Ditch block

 Vegetated ecotone (A4 and A8 ponds)

 Vegetated ecotone (Harvey Marsh)

 Island feature

 Wetland bench feature

 Creek realignment

Wetland bench

Sunnyvale WPCP

Former Landfill

Twin Creeks Complex

Sunnyvale Baylands Park

America Center

Harvey Marsh

Sunnyvale West Creek

Sunnyvale East Creek

Calabazas Creek

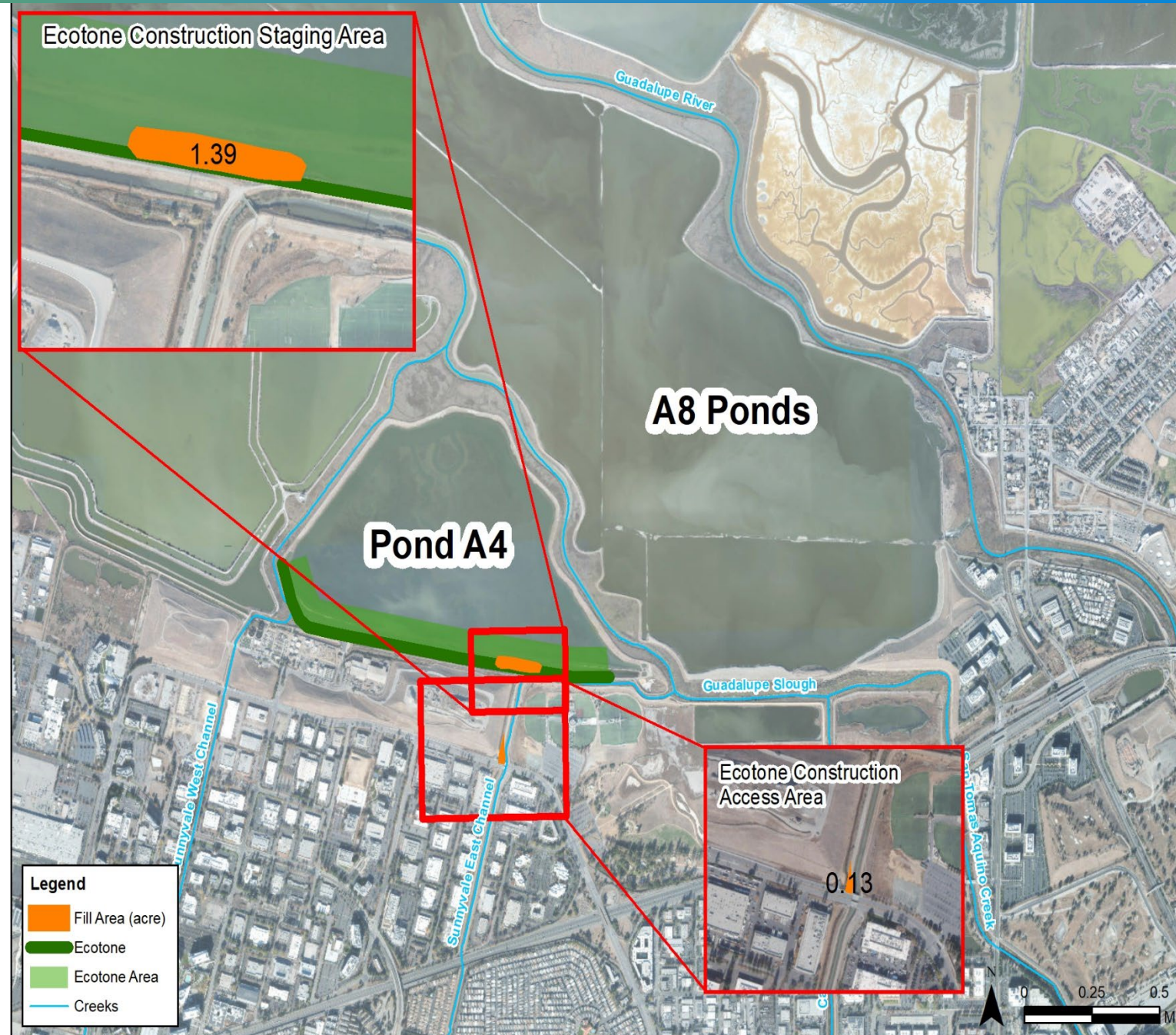
San Tomas Aquino Creek

Guadalupe River

237

Pond A4 Resilient Habitat Restoration Project

- Added to Valley Water FY2024-28 5-Yr CIP last April
- Continue Sediment Reuse Until Implementation of Calabazas/STA Creek Marsh Connection Project (est Const Schedule 2027-2029)
- Taking advantage of Statutory CEQA Exemption under CDFW's Cutting Green Tape Initiative to expedite project schedule to start construction next year
- Build interim habitat until eventual ecotone construction with full tidal restoration at Pond A4



Breakout Session: Sediment Reuse

- What are your best practices for sediment management?
- What obstacles have you faced implementing beneficial reuse of sediment?
- How can beneficial reuse for habitat restoration become more widespread?



QUESTIONS





Valley Water

Clean Water • Healthy Environment • Flood Protection

Judy Nam, Project Manager
jnam@valleywater.org



Stillwater Sciences

Schaaf & Wheeler
Consulting Civil Engineers

SFEI | AQUATIC
SCIENCE
CENTER



KEARNS WEST

pathways
CLIMATE INSTITUTE



CINQUINI & PASSARINO, INC.
GEOSPATIAL SOLUTIONS

- ▲ BOUNDARY
- ▲ INFRASTRUCTURE
- ▲ BATHYMETRY
- ▲ TOPOGRAPHIC
- ▲ DEVELOPMENT
- ▲ GEOPHYSICAL



Valley Water

Clean Water • Healthy Environment • Flood Protection



Land use and project planning across multiple jurisdictions

Makena Wong

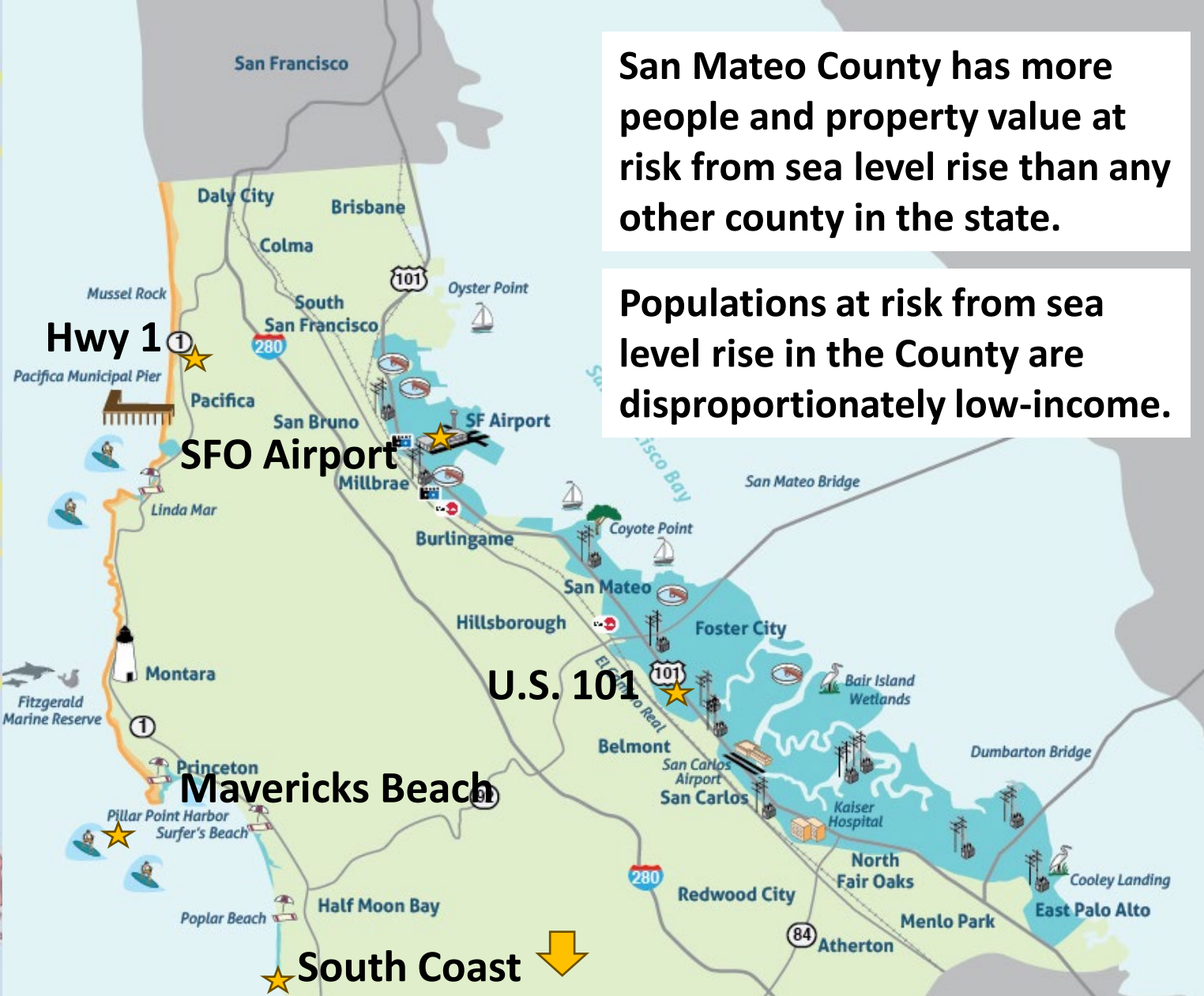
Project Manager

San Mateo County Flood and Sea Level Rise
Resiliency District (OneShoreline)



Oyster Pt Blvd Exit on U.S. 101 in South San Francisco
(12/31/2022, Source: San Francisco Chronicle)

San Mateo County and Sea Level Rise



San Mateo County has more people and property value at risk from sea level rise than any other county in the state.

Populations at risk from sea level rise in the County are disproportionately low-income.

Introduction to OneShoreline



A long-standing Flood Control District collected taxes and worked in 10% of the county and Bay shoreline and along none of the Pacific coastline

State legislation established OneShoreline on January 1, 2020 as the first independent government agency in CA to build resilience to the water-related impacts of climate change.

OneShoreline takes a holistic approach to:

THREATS

flooding, sea level rise,
coastal erosion, stormwater

GEOGRAPHY

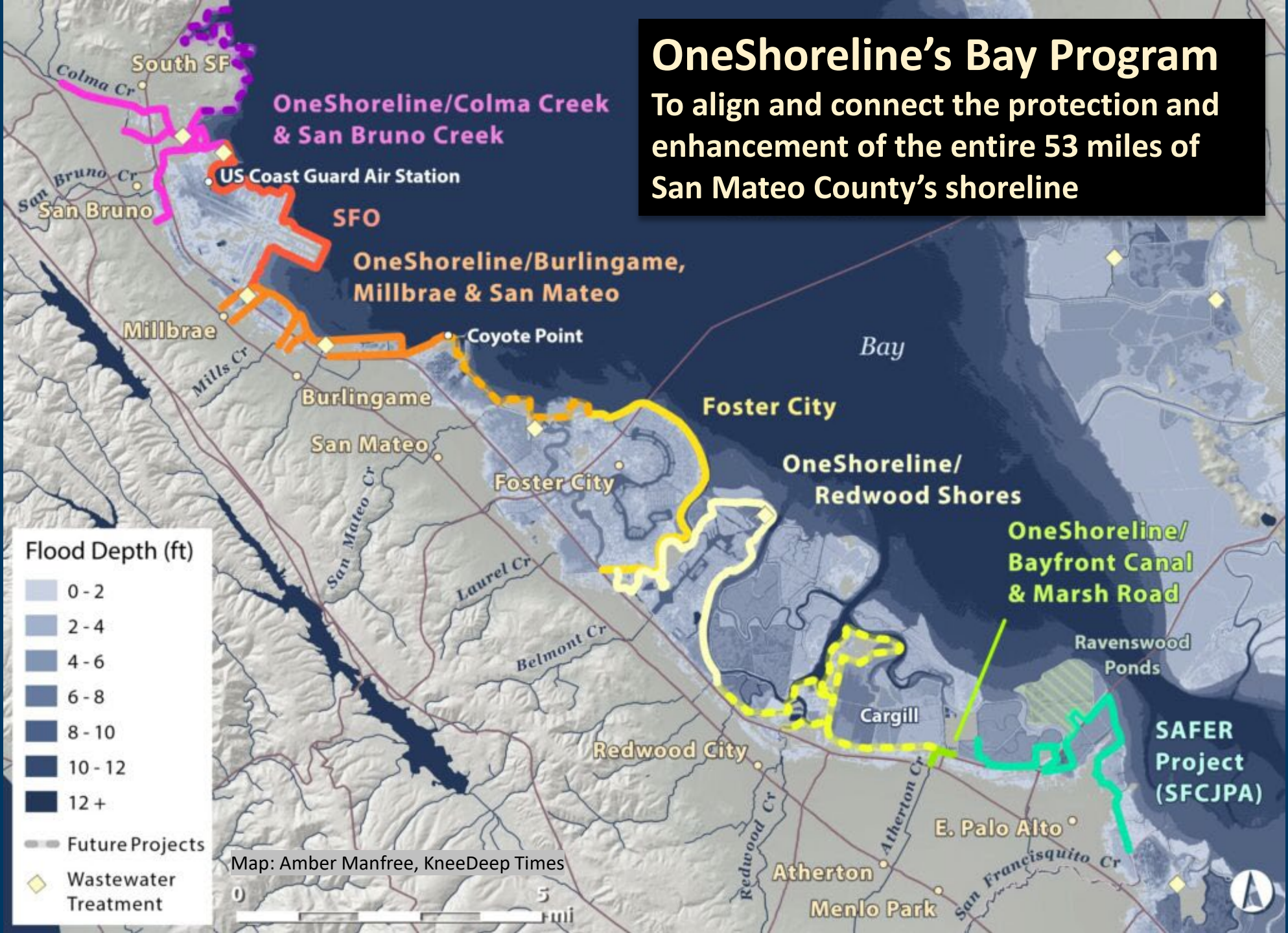
Collaboration between
jurisdictions and asset owners

OBJECTIVES

flood protection, habitat, recreation,
connectivity, community enhancement

OneShoreline's Bay Program

To align and connect the protection and enhancement of the entire 53 miles of San Mateo County's shoreline



Map: Amber Manfree, KneeDeep Times

Key ingredients to long-term resilience:

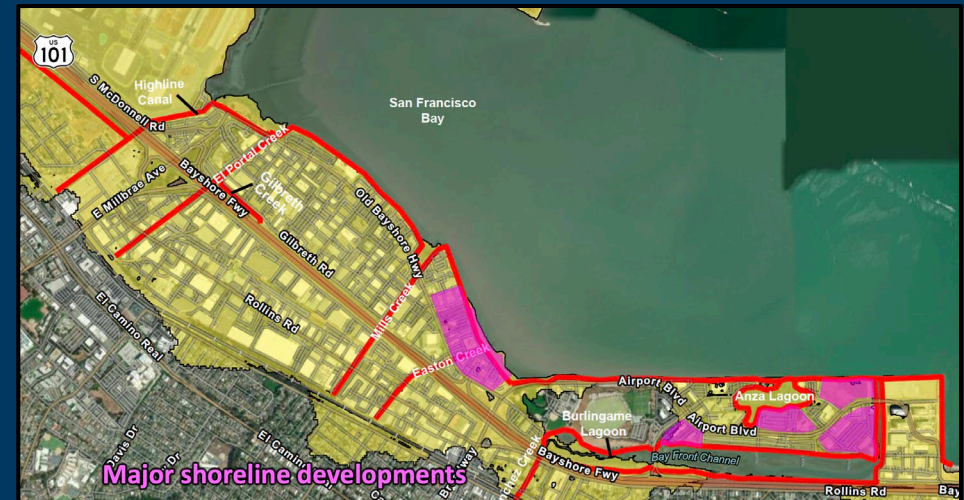
1. Local leadership eager to use influence to champion for long-term resilience to sea level rise



2. Leverage opportunities for new waterfront developments to contribute to resilience

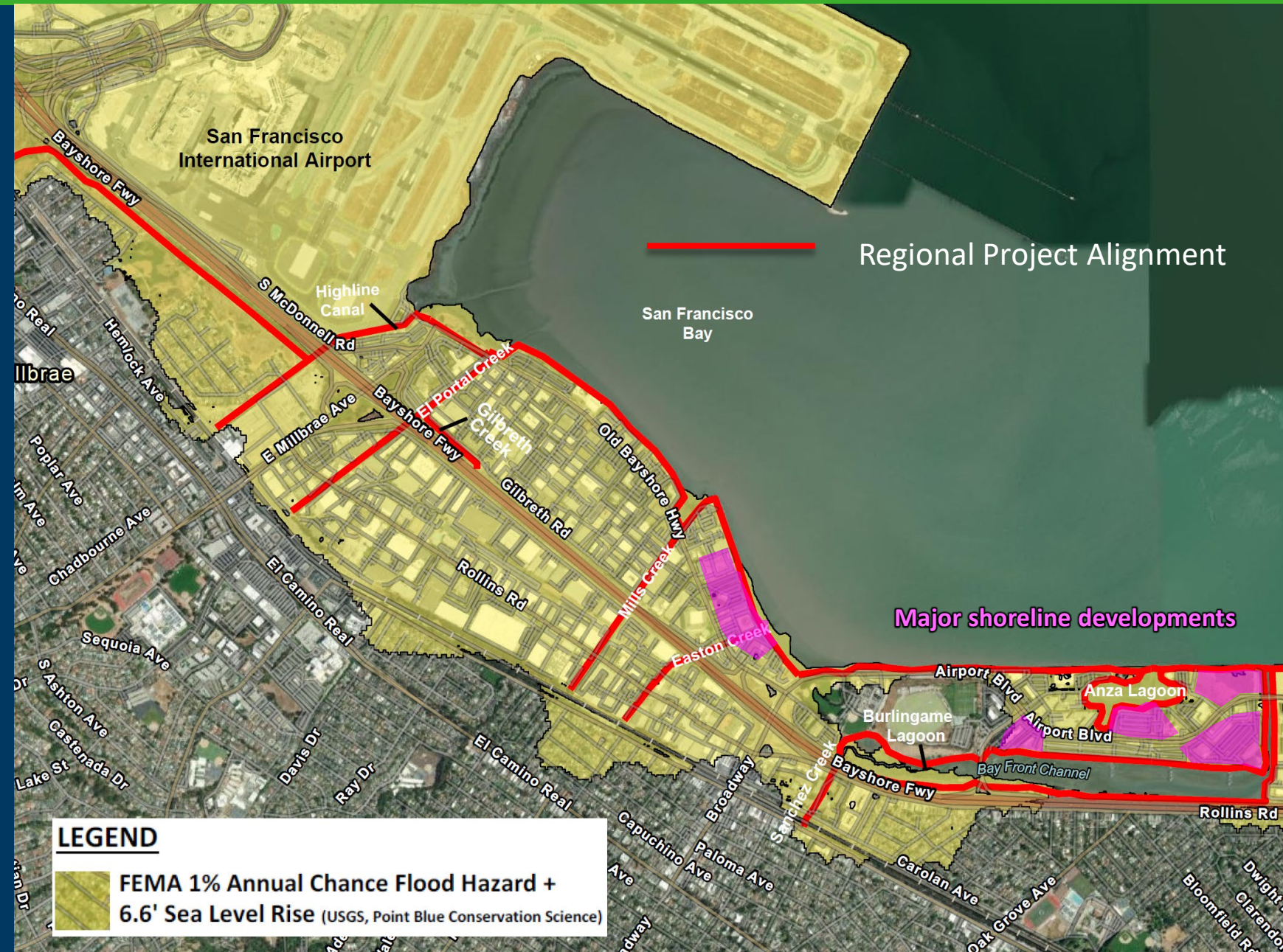


3. A cross-jurisdictional effort to guide – and integrate developments into – an aligned regional solution



First Case Study: Burlingame Zoning Ordinance & Regional Project

- Millbrae-Burlingame Regional Project seeks to protect properties in the area shaded **yellow** by keeping **red lined** waterways & shorelines from overtopping from a Bay water level equal to FEMA BFE + 6 feet
- In 2022, Burlingame became one of first cities in the Bay Area to incorporate sea level rise into its zoning ordinance
- Key elements: buffer zone and shoreline protection infrastructure requirements
- Goal: Leverage major shoreline developments to contribute to regional adaptation solutions
- Regional project will analyze and guide those site-specific solutions



What is the Planning Policy Guidance?

A standardized, evolving resource for jurisdictions to account for climate-driven future conditions in general plans, specific plans, and zoning ordinances, and review of new private developments.

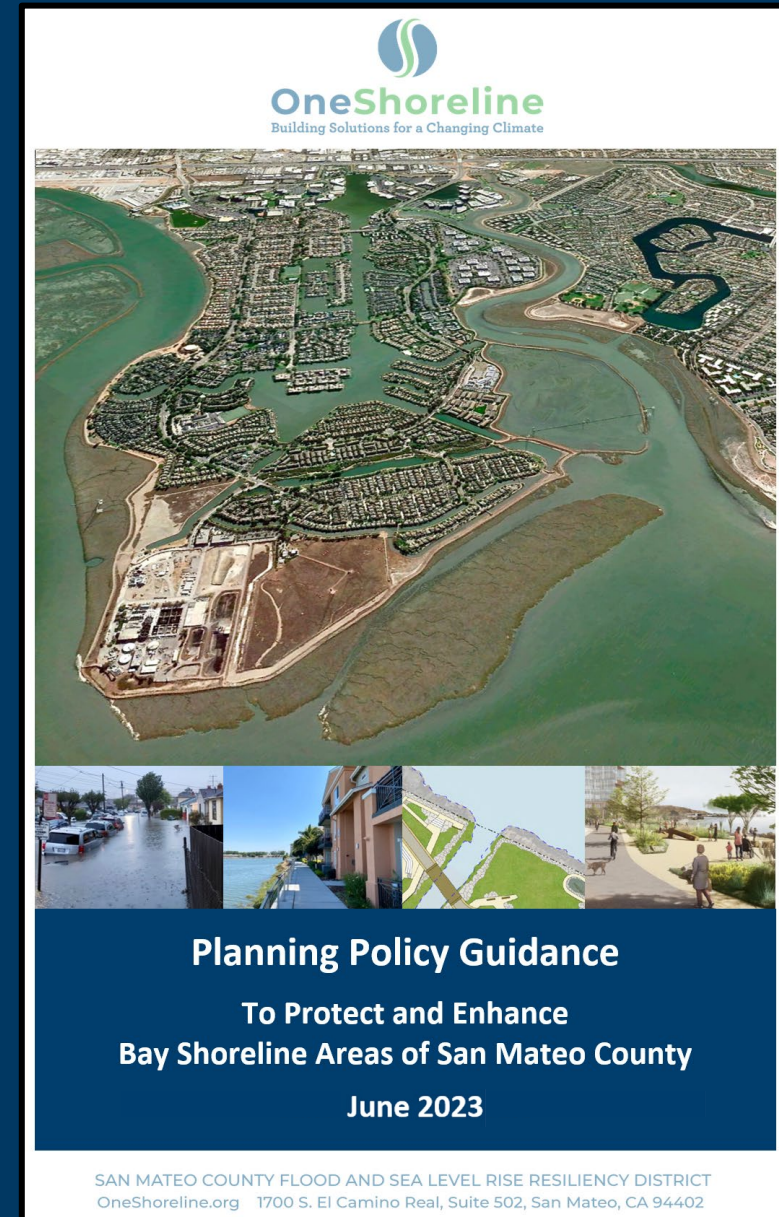
What it is

- Voluntary guidance
- Actionable template
- Focused on new/
substantial private
development
- Evolving

What it isn't

- Mandatory regulations
- Reference document only
- Focused on existing or
public development
- Static

Learn more at: [OneShoreline.org/Planning-Guidance](https://www.1shoreline.org/planning-guidance)



OneShoreline
Building Solutions for a Changing Climate

Planning Policy Guidance
To Protect and Enhance
Bay Shoreline Areas of San Mateo County
June 2023

SAN MATEO COUNTY FLOOD AND SEA LEVEL RISE RESILIENCY DISTRICT
OneShoreline.org 1700 S. El Camino Real, Suite 502, San Mateo, CA 94402

Questions to Explore in Breakout Session

- **What is the right scale for regional projects?**
- **How do you balance the need for standardized sea level rise guidance while also accounting for unique local factors?**
- **Where does managed retreat fit into adaptation planning of a highly urbanized and vulnerable geography?**
- **Bring your own questions/experiences on planning across multiple jurisdictions!**

Thank you



mwong@OneShoreline.org

OneShoreline.org





**Empowering community voices
to implement equitable climate
solutions for unity, resilience,
and justice.**



Methods for Community Led Resilience

Climate Change Community Teams

- Composed of residents and leaders from faith and service organizations, youth and city staff
- Teams direct projects from the outset
- CRC provides staffing and resources to carry out community priorities

Community Needs Assessment

- Surveys
- Focus Groups, community meetings
- Door-to-door Canvassing
- Collect a representative sample of community needs and priorities
- Language & Cultural
- Community –led solutions



Education - Youth Climate Collective (YCC)

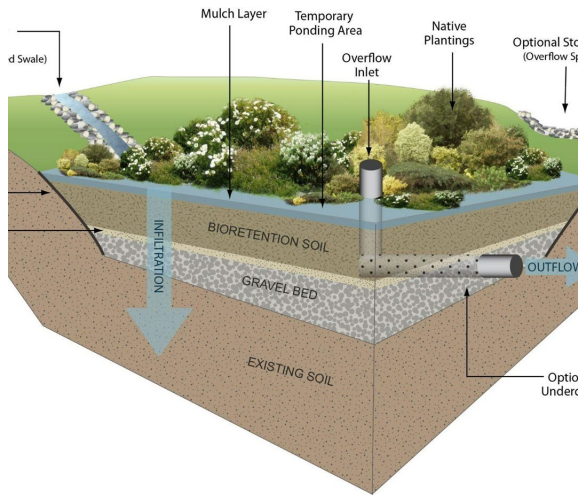
- Promotes frontline-community **youth engagement** and **leadership** in climate justice and environmental topics through hands-on experiences.
- **Six-month**-long educational program
- **15-20** highschool students and young adults



Rain Gardens and Water Cisterns



- Emerged out of extensive community engagement (surveys, workshops, canvassing)
- Led by the EPA CCCT
- Pilot **25** Raingardens and Cisterns
- Employment up to **10** Residents of EPA
- Education **500+ Residents**
- Mitigate flood risk,
- Food and Water Security
- Reduce urban heat
- Reduce water pollution
- Awareness and Education



Breath of Air Campaign



- CCCTs Initiative
- Worked with an interfaith coalition of synagogues and churches (Kol Emeth/SPARK Church)
- Raised \$30,000 in 60 days
- Air Purifier-Remove 99.9% of harmful particulate matter
- **160 Families**
- Replacemet filters and check-ins

Big question: How do you keep communities engaged throughout long term projects?

SAFERBay - Horizontal levee installation in East Palo Alto, Belle Haven (~10 year project)

Initial thoughts, we'll co-learn in breakout session

- Created community advisory committee
- Holding accessible public meetings (language, location, payment for expertise, transportation, childcare)
- Fulfilling community priorities along the way; community knows what is most urgent, our job to understand how that intersects with the project and do both at once.

