



# Resilient by Design

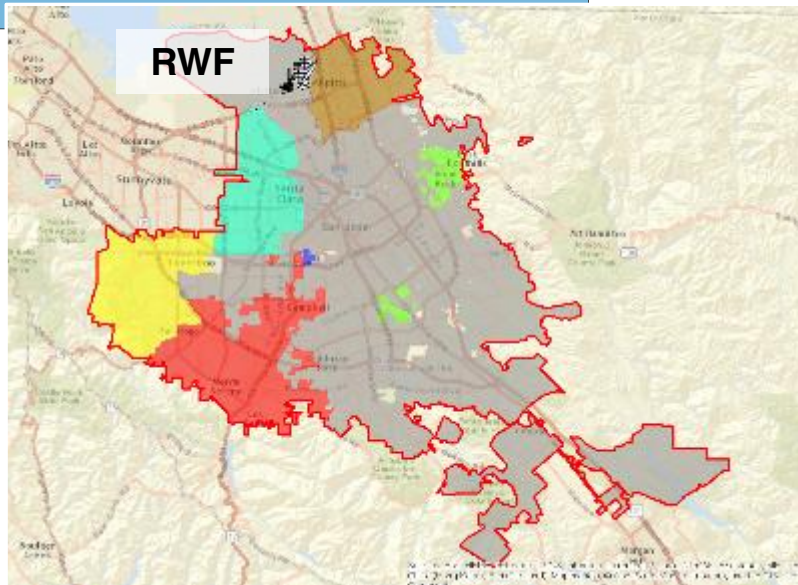
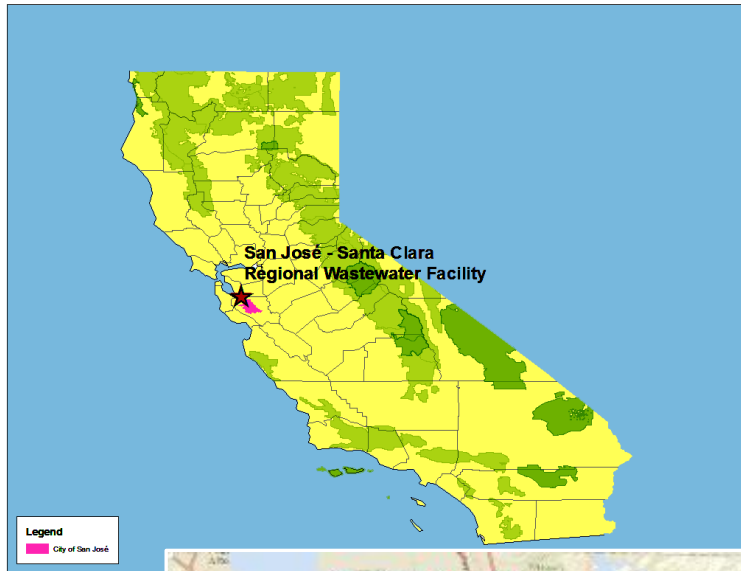
*Opportunities in San Jose*

July 6, 2016



San José-  
Santa Clara  
Regional  
Wastewater  
Facility

# San Jose-Santa Clara Regional Wastewater Facility



- Largest Advanced Wastewater Treatment Facility west of the Mississippi
- Continually providing essential services 24/7 since 1956
- Jointly owned by San Jose and Santa Clara
- Serves 1.4 million people and over 17,000 businesses across 8 cities and County areas
- Low elevation makes it prone to riverine flooding and future sea level rise

# Regional Wastewater Facility



# Regional Wastewater Facility



# Regional Wastewater Facility



RWF Operational Area

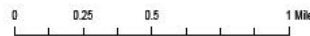


Effluent Discharge Outfall

# Plant Master Plan



Updated June 9, 2016



## Plant Master Plan

Started in 2008

Adopted in 2013

Extensive Stakeholder Engagement

## Goals:

Operational

Environmental

Economic

Social

## 30 year Master Plan:

Facility Rebuild and Revitalization

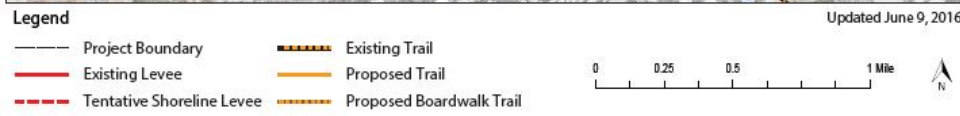
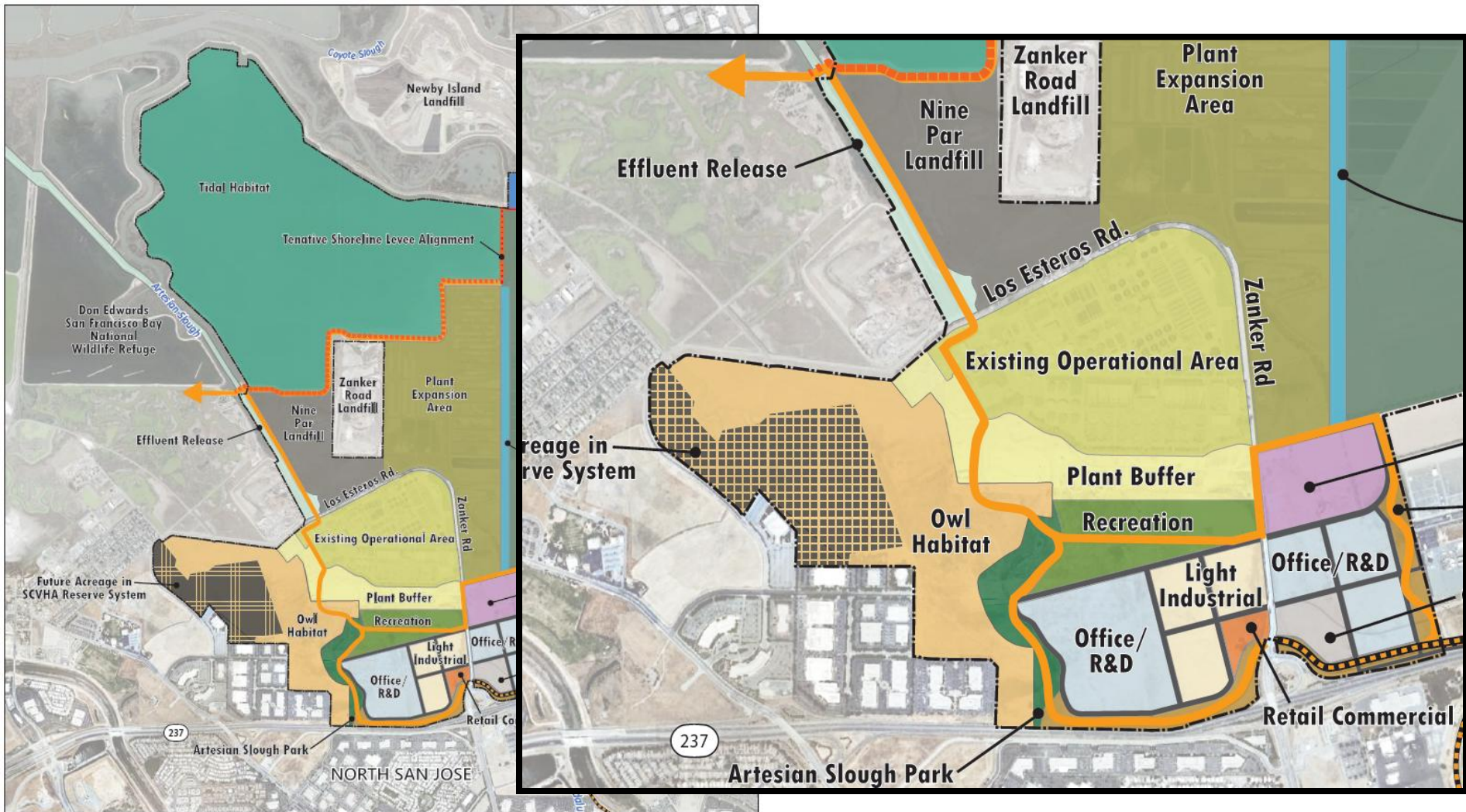
Habitat Protection

Odor Mitigation

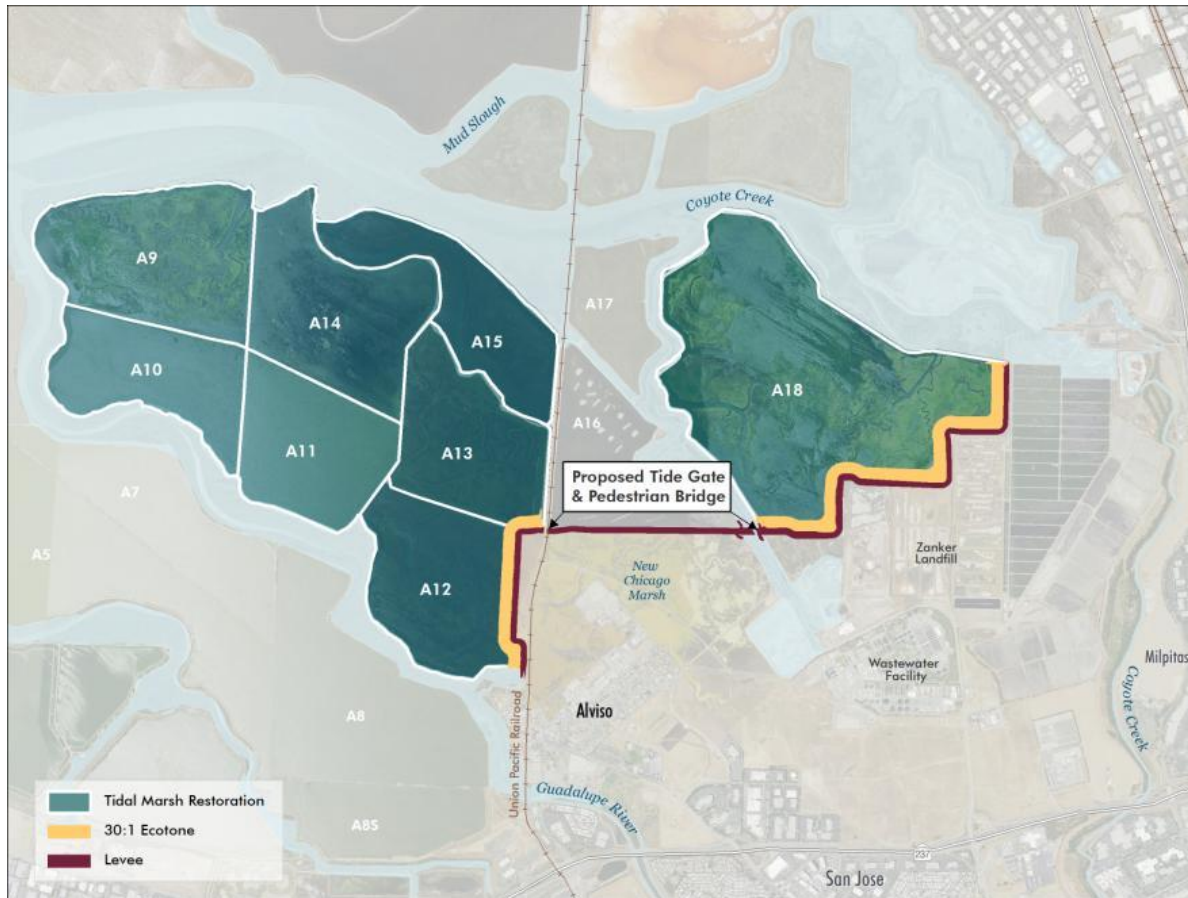
Economic Development

Recreational Spaces

# Plant Master Plan



# South San Francisco Bay Shoreline Levee



Graphic from September 2015 presentation to Civil Works Review Board

## Project Description

Four miles of flood risk management levee  
Tidal marsh restoration  
Four miles of trails with viewing platforms and benches

## Project Sponsors

US Army Corps of Engineers  
Santa Clara Valley Water District  
Coastal Conservancy

## Land Owners

US Fish and Wildlife Service  
Cities of San Jose and Santa Clara

## Estimated Project Costs

\$174 million  
40% federal, 60% non-federal

## Anticipated Schedule

Design start in 2017  
Construction start in 2018



# Challenges

- Potential Riverine Flooding and Sea Level Rise
  - RWF - Essential Services Facility
  - Disadvantaged Community of Alviso
  - Critical Assets and Global Companies located in North San Jose
- Limited Public Access; Sensitive Habitat



# Opportunities – South SF Bay Shoreline Levee

- Protect community of Alviso and Regional Wastewater Facility from future flood risk
- Restore 2,900 acres of former salt ponds
- Provide key connections to SF Bay trail and viewpoints for restored habitat



# Opportunities – Resilient by Design

- Synergy with South SF Bay Shoreline Levee project
- Creative design teams to complement Shoreline Levee work
- Enhance public access to South San Francisco Bay and activate shoreline
- Recreation and Economic Development opportunities



# Questions and Discussion



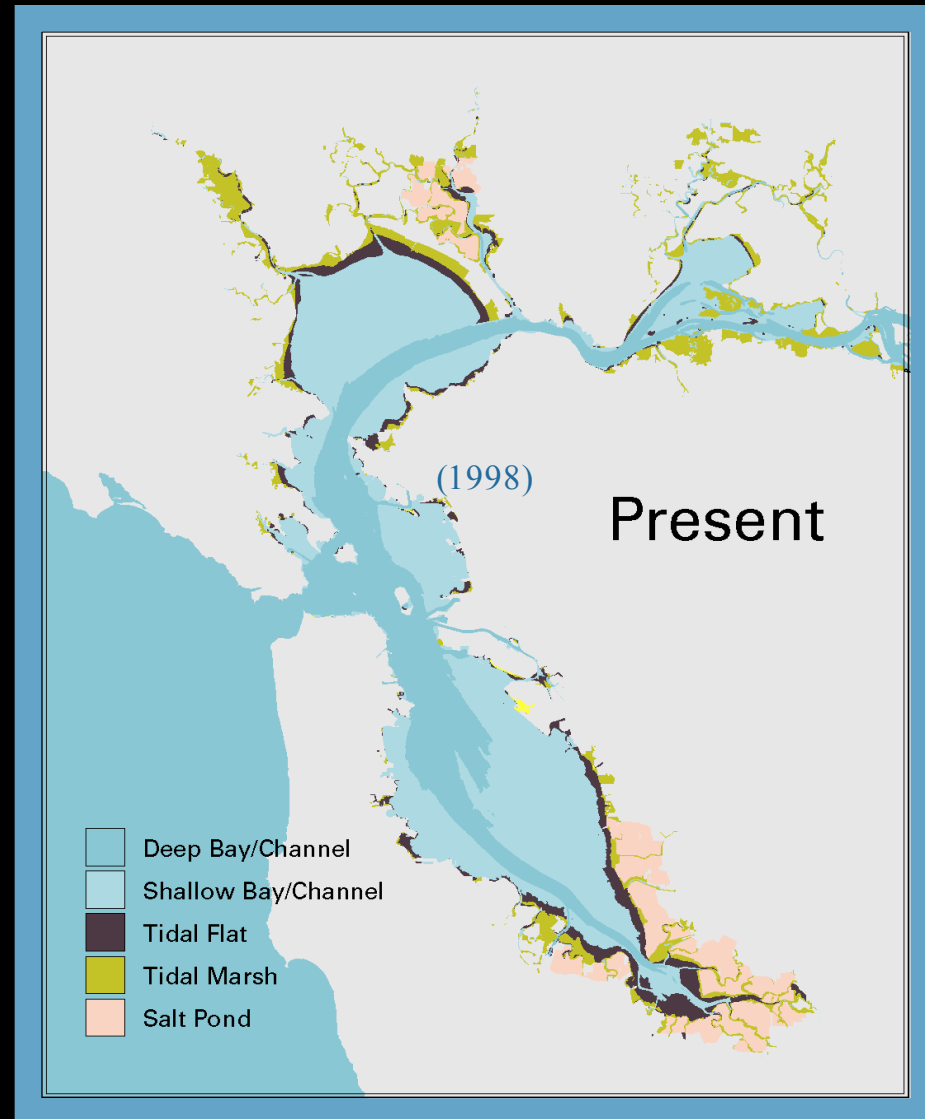
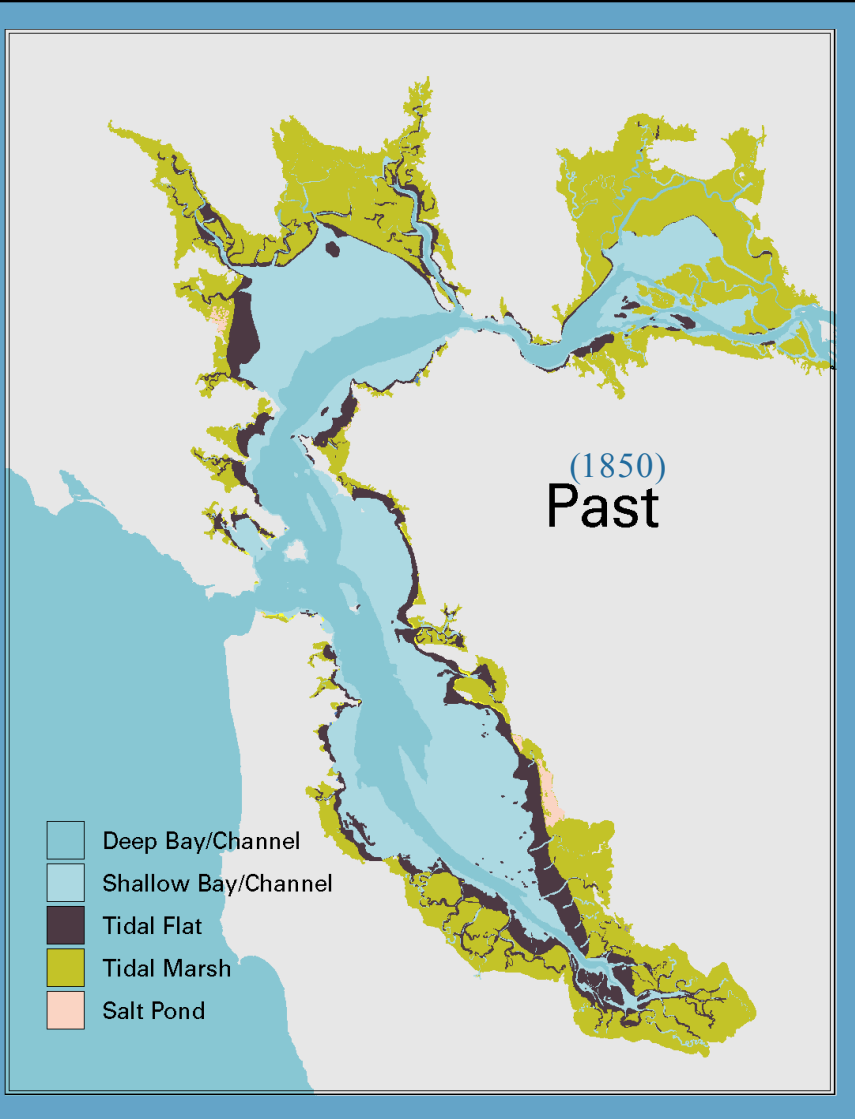
# Restoring San Francisco Bay

Amy Hutzel

Coastal Conservancy



# 150 years of urbanization has altered San Francisco Bay



# San Francisco Bay Restoration Authority

*Mission: To raise and allocate resources for the restoration, enhancement, protection, and enjoyment of wetlands and wildlife habitat in the San Francisco Bay and along its shoreline.*

The San Francisco Bay Restoration Authority was created by Save The Bay and others through 2008 legislation.

Governing Board comprised of elected officials from each quadrant of the Bay Area; Advisory Committee represents many community interests.



# Clean and Healthy Bay Ballot Measure: Measure AA



June 2016 ballot measure

\$12/parcel/year for 20 years, will generate  
~\$500 million for restoration projects  
around the Bay

Passed by over 70% in 9 county Bay Area.



# Clean and Healthy Bay Ballot Measure: Measure AA

- Restoring vital fish, bird and wildlife habitat.
- Improving water quality and reducing pollution and toxins.
- Protecting shoreline communities against flooding from severe storms and sea level rise.
- Increasing shoreline access for public enjoyment.

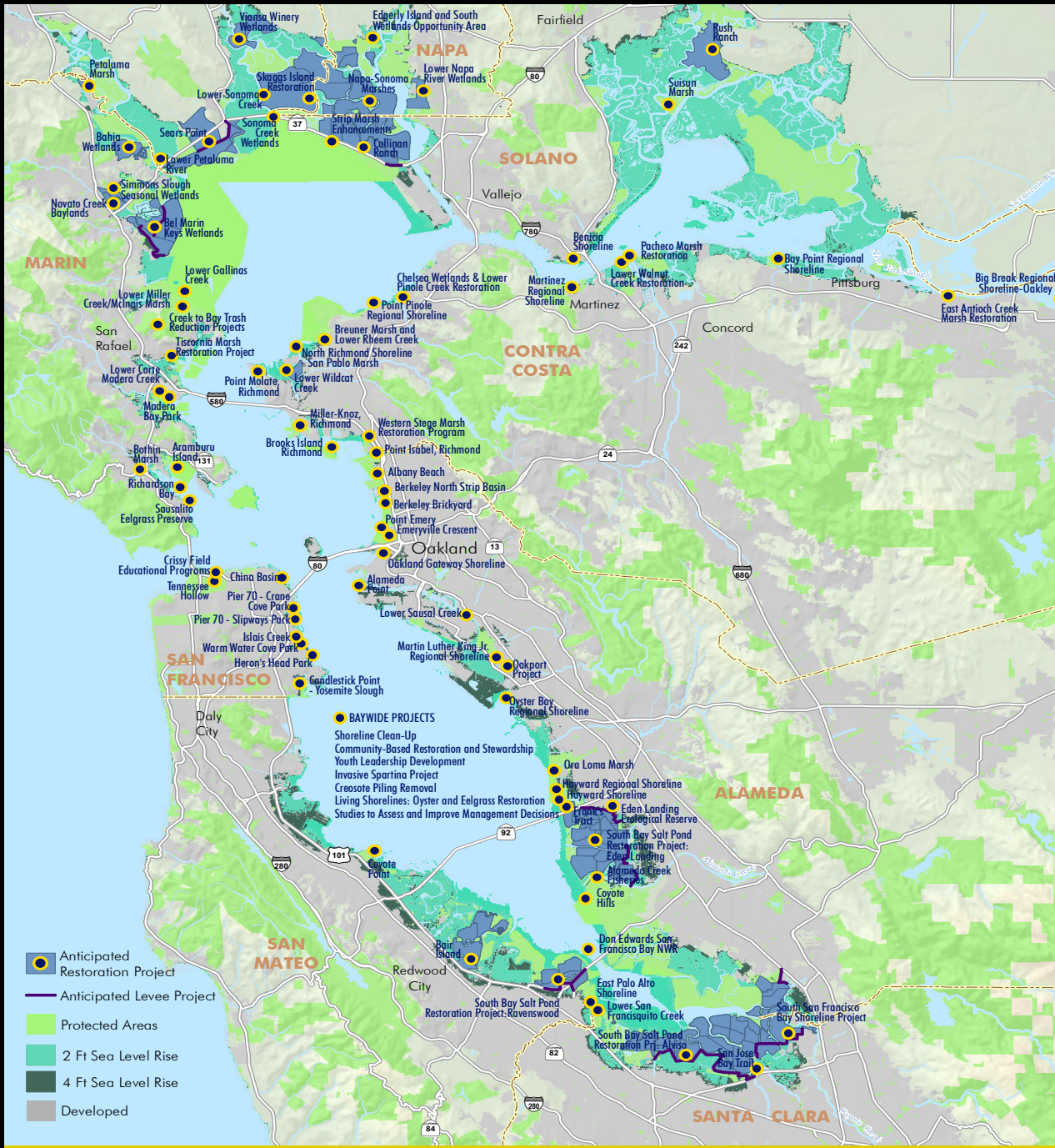


# Clean and Healthy Bay Ballot Measure: Measure AA

Priority given to projects that:

- Have greatest positive, long-term impact on Bay.
- Provide for geographic distribution.
- Leverage other funding.
- Benefit disadvantaged communities.
- Benefit the region's economy, including:
  - Local employment/workforce development
  - Nature-based flood protection for shoreline communities and infrastructure.
- Engage youth/young adults and build workforce skills.
- Incorporate monitoring, maintenance, and stewardship.









# Phase I

6 Habitat Projects & 5 Public Access

1,600 acres of tidal marsh  
1,440 acres of muted tidal habitat  
710 acres of enhanced managed pond  
3,750 total acres of habitat

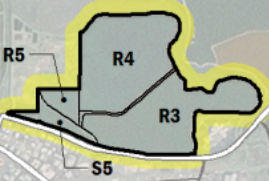
7 miles of new trails  
historic salt works boardwalk  
interpretive signs, platforms, overlooks,  
kayak launch



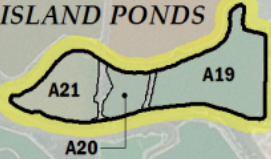
0 0.5 1 2 Miles  
CALIFORNIA STATE PLANE COORDINATE SYSTEM ZONE III  
NORTH AMERICAN DATUM OF 1983  
IMAGERY Esri



### Ravenswood



### Alviso ISLAND PONDS



### Alviso MOUNTAIN VIEW PONDS

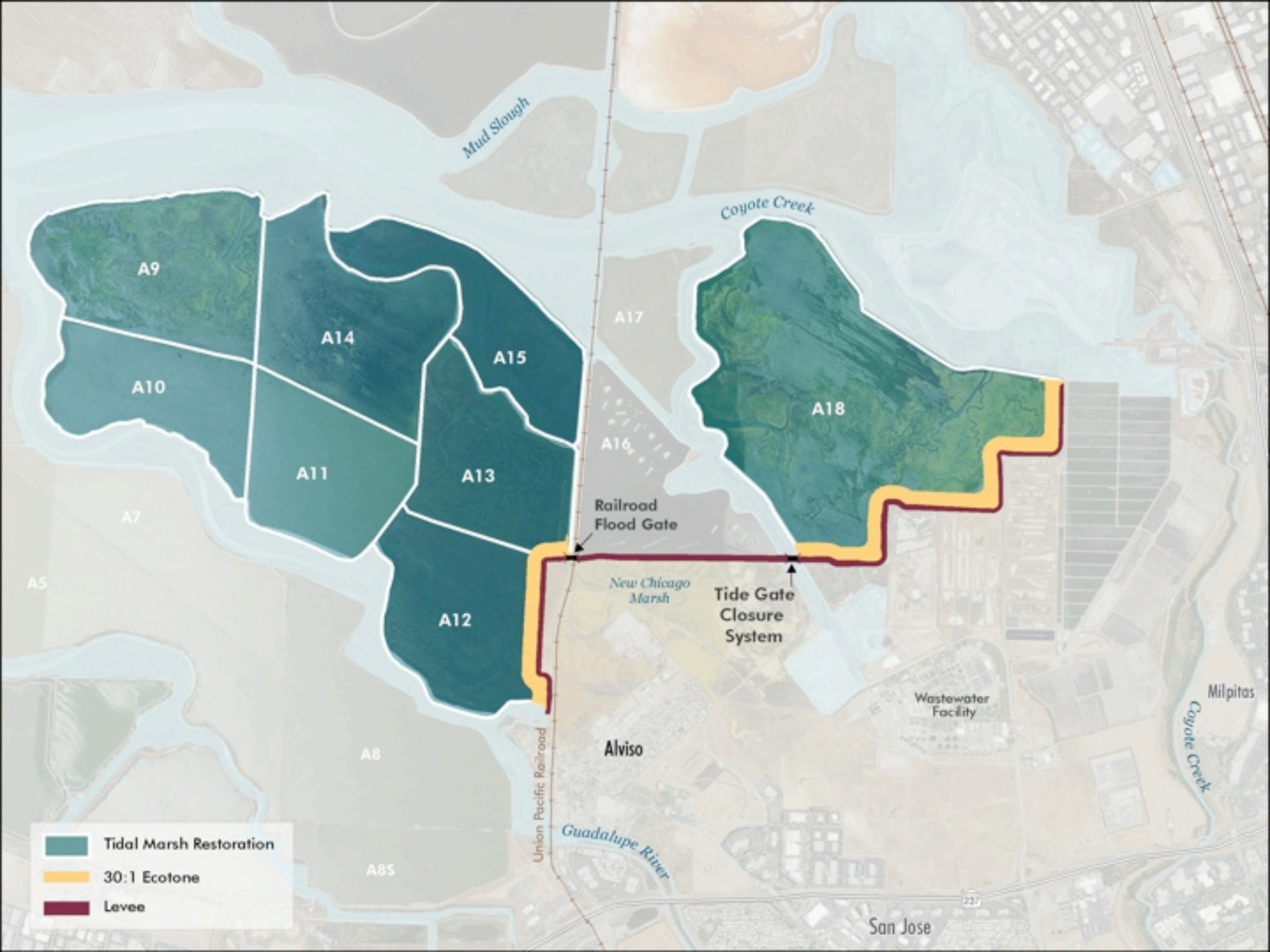


### Alviso A8 PONDS











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