

A photograph of a wooden bridge spanning a marshy area with water and brown vegetation. A tall transmission tower is visible in the background under a clear sky.

# Alameda County Flood Control & Water Conservation District

**Alameda LAFCO Regular Meeting  
January 15, 2015**

# Protecting Alameda County since 1949





# Long History of Successful Flood Control

Much of Alameda County was in a flood plain. Until the 1950s and 1960s, many areas of the county flooded repeatedly.



Hayward/San Leandro  
area in the 1950's,  
before flood control  
(above)  
and after (right).



# ACFCD does important work and we do it well – *efficiently & economically*

By way of pump stations, erosion control structures, and hundreds of miles of pipeline, channels, levees and creeks, we:

- ▶ Protect lives and property from flooding
- ▶ Protect water resources- prevent water waste and diminished water supply
- ▶ Preserve and enhance natural environment

# Protection from damage caused by flooding

The District was formed by the Alameda County Flood Control and Water Conservation District Act 205 of the California Uncodified Water Code. The Act authorizes the District to provide protection for all waterways, watersheds, harbors, public highways, lives and property, from damage caused by flood and stormwaters.



# Protection from damage caused by flooding

## Total facilities:

- 91 miles of earthen channels
- 36 miles of concrete channels
- 240 miles of underground pipe
- 13 miles of improved channels
- 24 pump stations
- 5 reservoirs
- 3 dams
- 200 miles of natural creeks



# Protection from damage caused by flooding

In 1999, many people living in Alameda County were required by FEMA to secure expensive flood insurance.

Thanks to ACFCD efforts, far fewer people need to buy flood insurance today.

- ▶ FEMA flood maps in 1999 showed areas where property owners would have to buy flood insurance
- ▶ FEMA flood maps today show 14,000 fewer parcels in a Flood Hazard Area due to errors corrected as a result of our detailed and thorough review of FEMA's work
- ▶ CTP with FEMA because of excellent and proactive work



# Capital improvement program reduces flooding

**\$89.3 Million** of constructed projects over the last 5 years.

**\$19.7 Million** allocated for projects scheduled for construction in FY 2015-2016.





# We support Alameda County's quality of life and sustainability

ACFCD is committed to protection of life and property, habitat restoration, recreation and enjoyment of Alameda County residents.



Peralta Creek before (above) and after (right). Project completed in 2008-2009.

## Economics– demonstration of fiduciary responsibility

The District develops a Capital Improvement Program that maximizes sensible flood control.

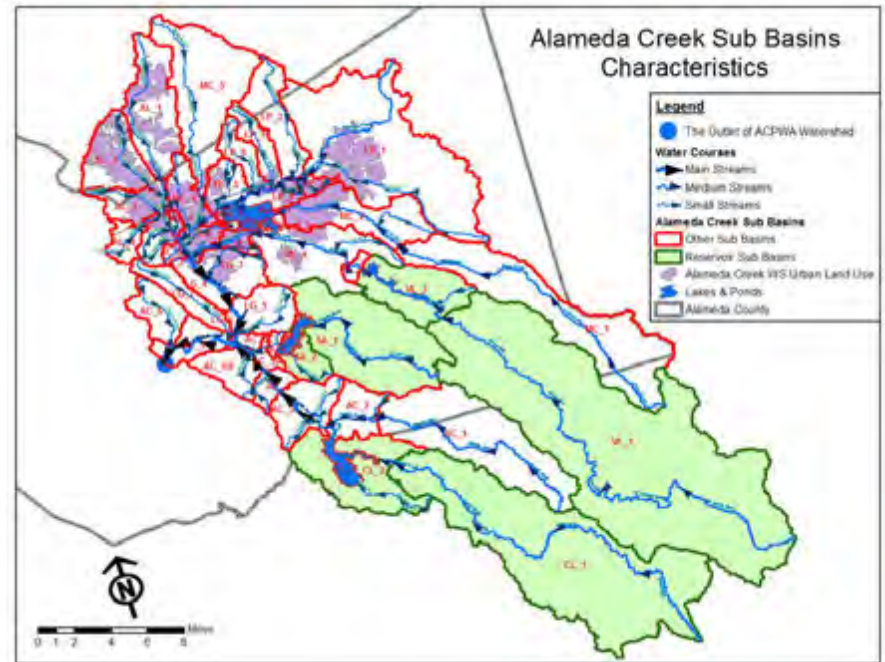
- ▶ Projects are funded on a pay-as-you-go basis
- ▶ Significant monies are reserved each year to fund very expensive, future projects
- ▶ Each of the Zones maintains it's own budget. Revenue generated within the zone is to be spent only within that zone.
- ▶ The District has published an Annual Report since the year 2000.

## Efficiency – full service staff and in-house expertise

- ▶ **Maintenance and Operations** staff (M&O) operate and maintain all flood control facilities
- ▶ **Engineering** staff uses technology to design upgrades to old facilities and new infrastructure
- ▶ **Construction and Development** staff reviews design documents, issues permits, conducts lab testing and performs contract administration tasks



# Proper management of Alameda Creek is mission-critical



# Lower Alameda Creek ... Then and Now





An aerial photograph showing a vast, flat landscape that has been inundated with floodwater. A winding river or canal cuts through the center of the image, with a narrow strip of land and some farm buildings along its banks. The surrounding fields are completely submerged, creating a uniform light-colored expanse. In the background, there are some hills and more distant structures.

# Alameda County Flood Control & Water Conservation District

**Before Construction of Alameda Creek Federal Project large areas of Fremont, Union City and Hayward used to flood.**



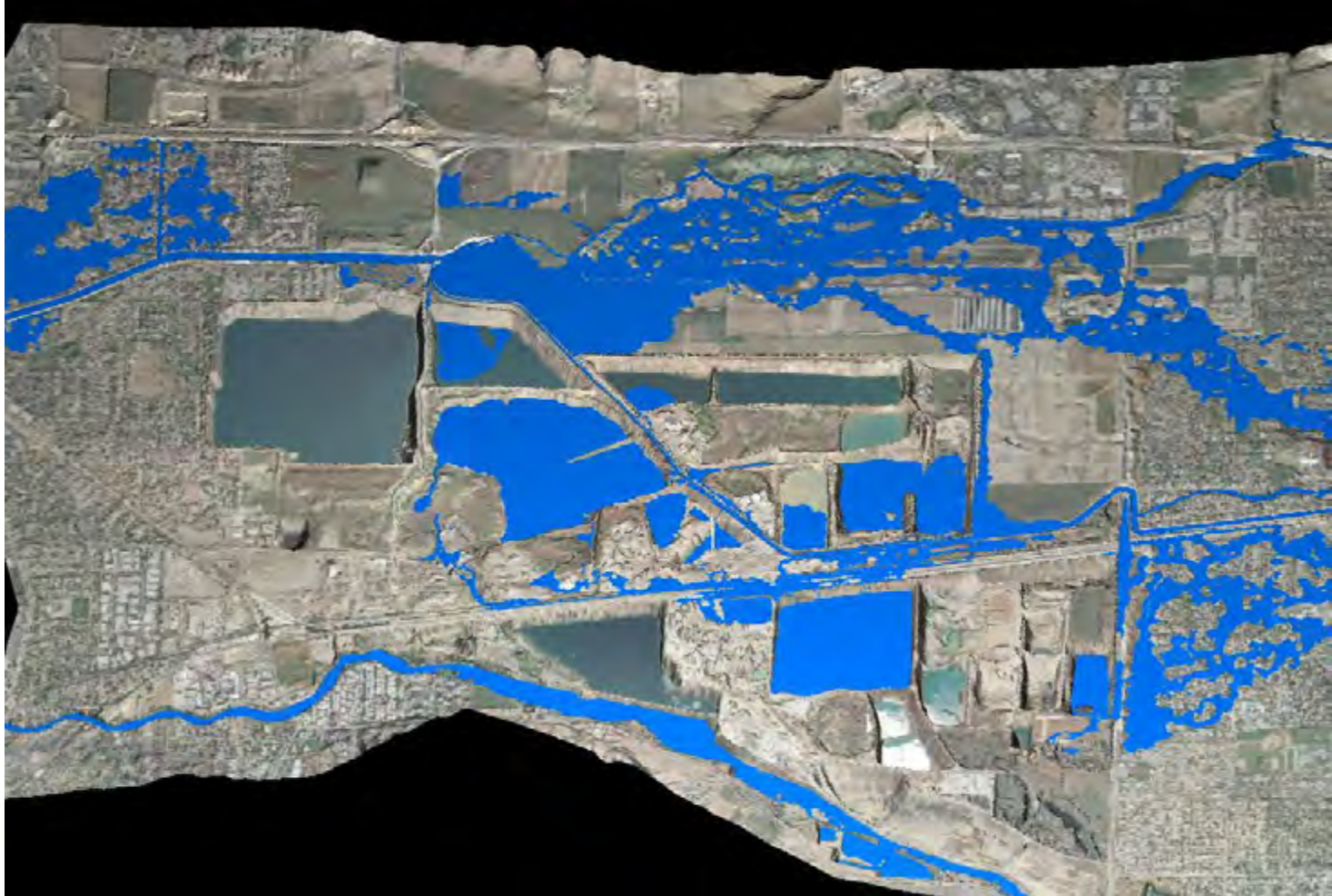
An aerial photograph of Alameda County, California, showing a mix of urban development, agricultural fields, and flood control infrastructure. A large, winding canal or levee system is visible in the lower half of the image, separating urban areas from agricultural land. The top of the image shows hilly, undeveloped terrain. The text "Alameda County Flood Control & Water Conservation District" is overlaid in the upper right corner.

# Alameda County Flood Control & Water Conservation District

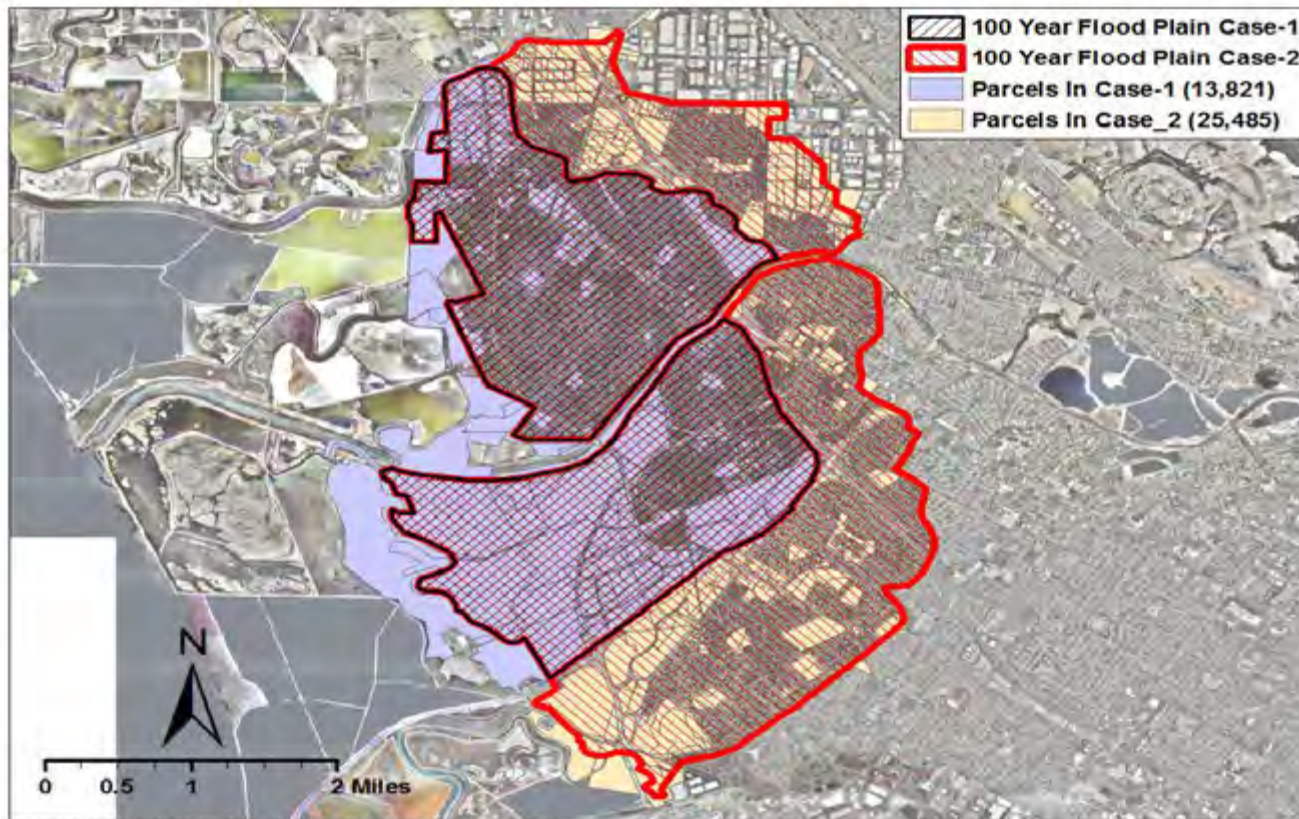
**Alameda Creek Federal Project allowed major urbanization in Western Alameda County cities**



## Portion of 100 Year Floodplain for East County



## Alameda Creek simulation ("what if")





## Alameda Creek – ACWD Inflatable Dam

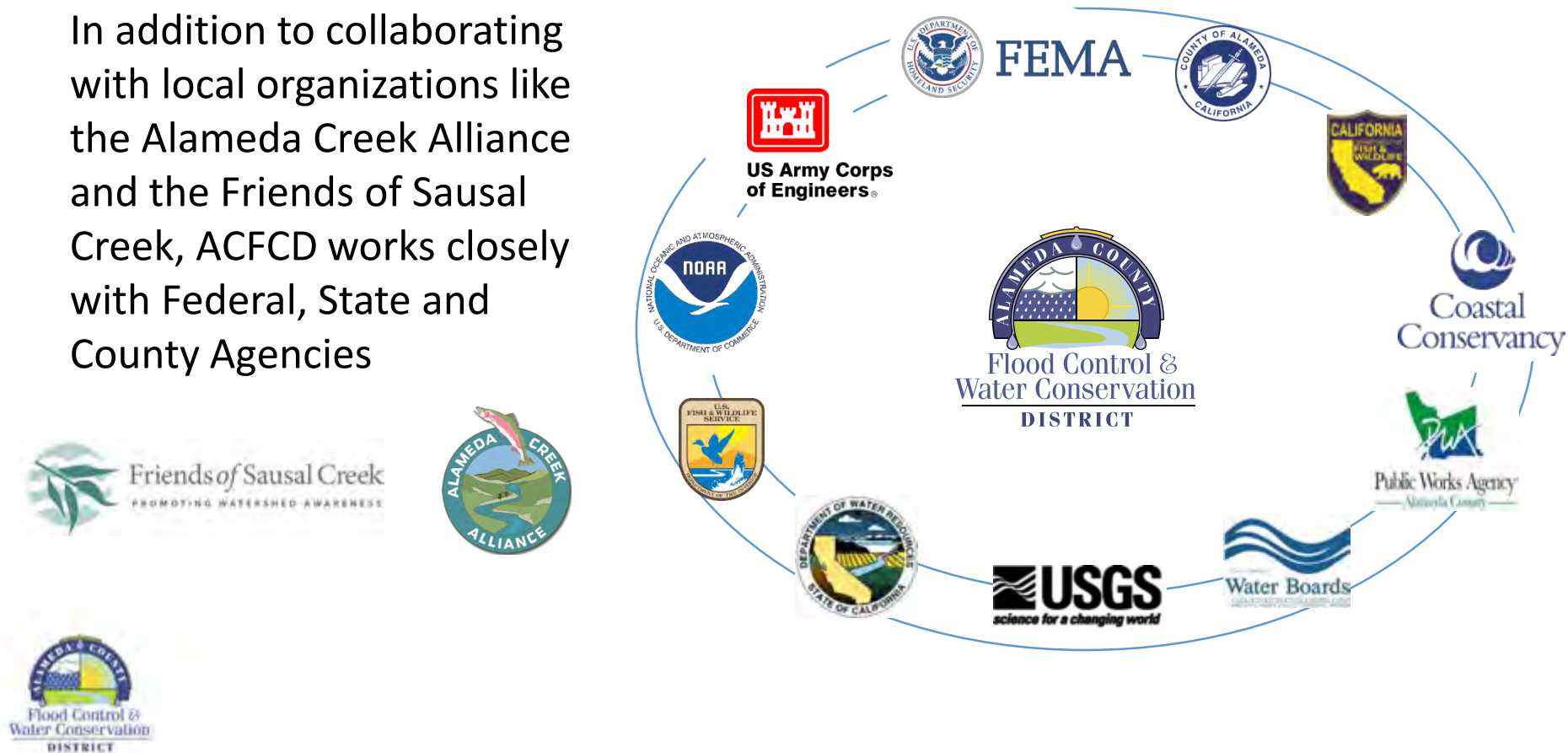


# Critical Components of Alameda Creek Watershed Management

- ▶ Maintain District Oversight
- ▶ Development Regulation
- ▶ Regulation Zones
- ▶ Floodplain Mitigation Without Downstream Impacts
- ▶ Sediment Management
- ▶ Maintenance of Quarry Lakes Flood Storage Volume
- ▶ Future Flood Control Projects Design and Review
- ▶ Future Coordination of Reservoir Operations

# Strong collaboration and leadership has enabled us to do great work

In addition to collaborating with local organizations like the Alameda Creek Alliance and the Friends of Sausal Creek, ACFCDD works closely with Federal, State and County Agencies





# Collaboration with Union City funded Castro Valley Creek Restoration



Castro Valley Creek before



Castro Valley Creek after



# Tule Ponds provides flood control and educational opportunities

Located in Fremont, this 14-acre district-owned parcel has been transformed into scenic wetlands and ponds providing flood protection and pollution control for stormwater flowing to the Bay. It also serves as a migratory bird habitat.



# Recreation

ACFCD has license agreements with the following cities and municipal entities to provide recreational opportunities on Flood Control properties: The cities of Emeryville, Oakland, San Leandro, Hayward, Union City and Fremont; and with EBRPD and HARD

- ▶ **Emeryville**
- ▶ **Oakland**
- ▶ **San Leandro**
- ▶ **Hayward**
- ▶ **Union City**
- ▶ **Fremont**
- ▶ **HARD (Hayward Area Recreation and Park District)**
- ▶ **EBRPD (East Bay Regional Park District)**



# Salt Ponds Restoration improves habitat and quality of life



Commercial salt ponds like Eden Landing near Hayward are being reverted to natural marsh, mudflat and other managed wetland habitats.





# Collaboration and leadership to address sea level rise and extreme tides



# Concluding : *Our challenges*

**Challenge 1:** Land use and climate change

**Challenge 2:** Limited resources

**Challenge 3:** Permitting

*“Biggest problem with flood control in the state is dividing up watersheds” - Department of Water Resources*

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