

San Mateo Countywide Water Coordination Committee

**San Francisquito Creek Joint Powers Authority
November 15, 2017 Update on Projects and Funding**



SFCJPA.ORG

**Len Materman
Executive Director
len@sfcjpa.org**



Our government agency is an ongoing project to create and implement a shared vision among communities and government agencies

Pacific Ocean

San Francisco Bay

San Francisquito Creek

San Mateo County
Flood Control District

San Mateo

East Palo Alto
Menlo Park
Palo Alto

Santa Clara Valley
Water District

San Jose



**Risk along
San Francisquito Creek
between S.F. Bay–Hwy. 101**



Risk along S.F. Creek upstream of Highway 101

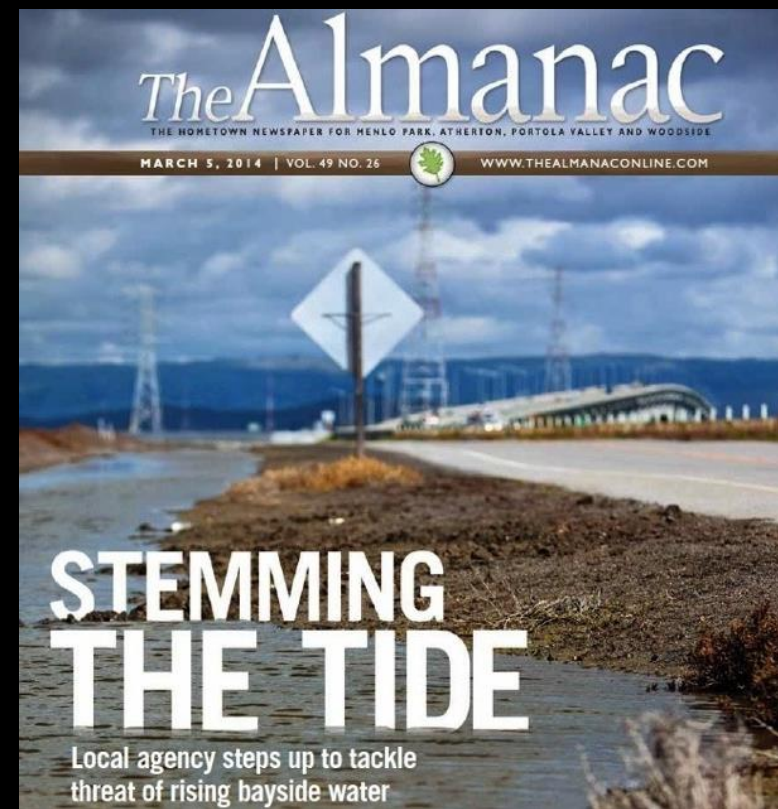
Palo Alto, 1998



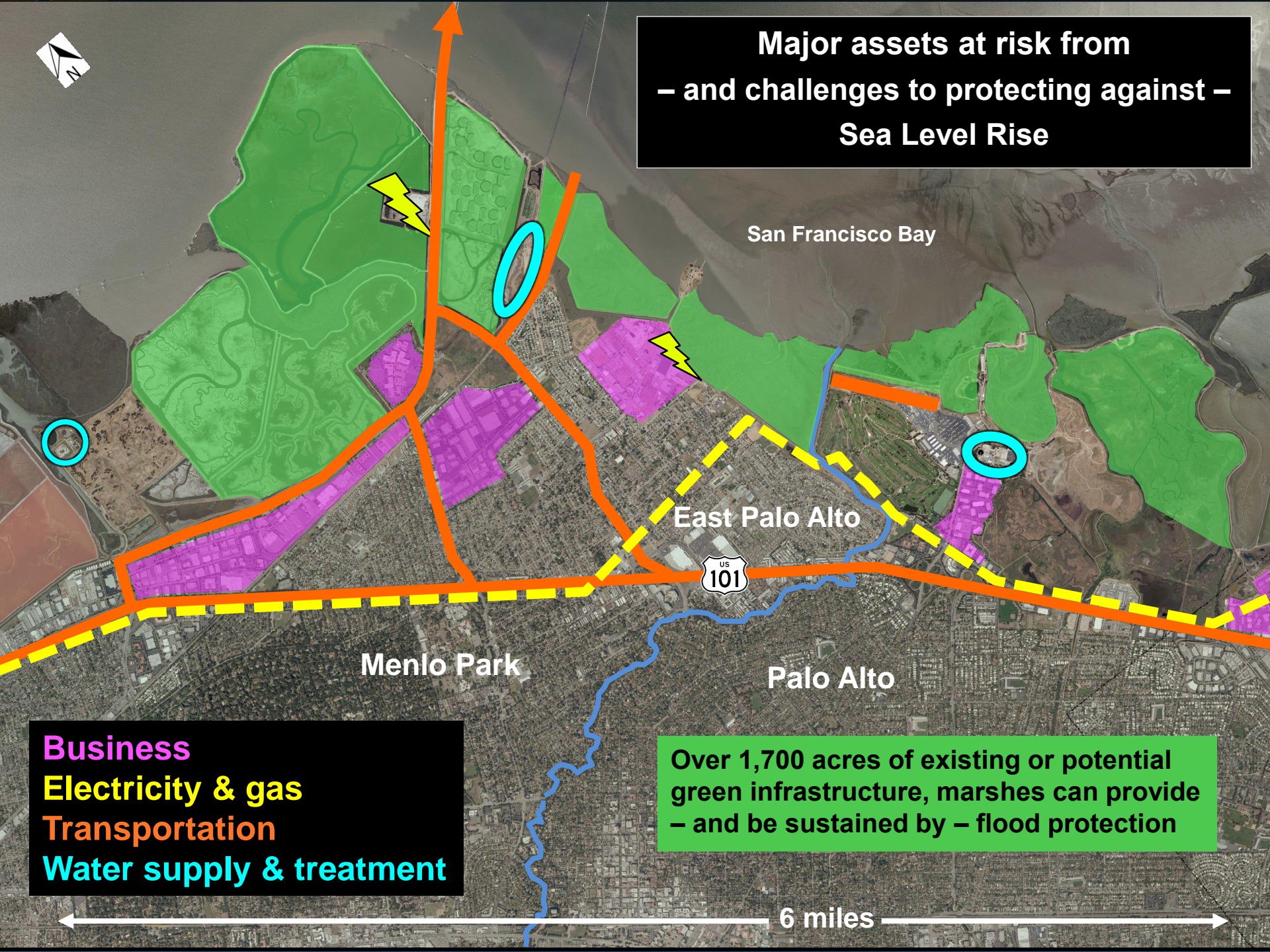
Palo Alto, 2017



Risk along the Bay shoreline in East Palo Alto and Menlo Park



**Major assets at risk from
– and challenges to protecting against –
Sea Level Rise**



Business
Electricity & gas
Transportation
Water supply & treatment

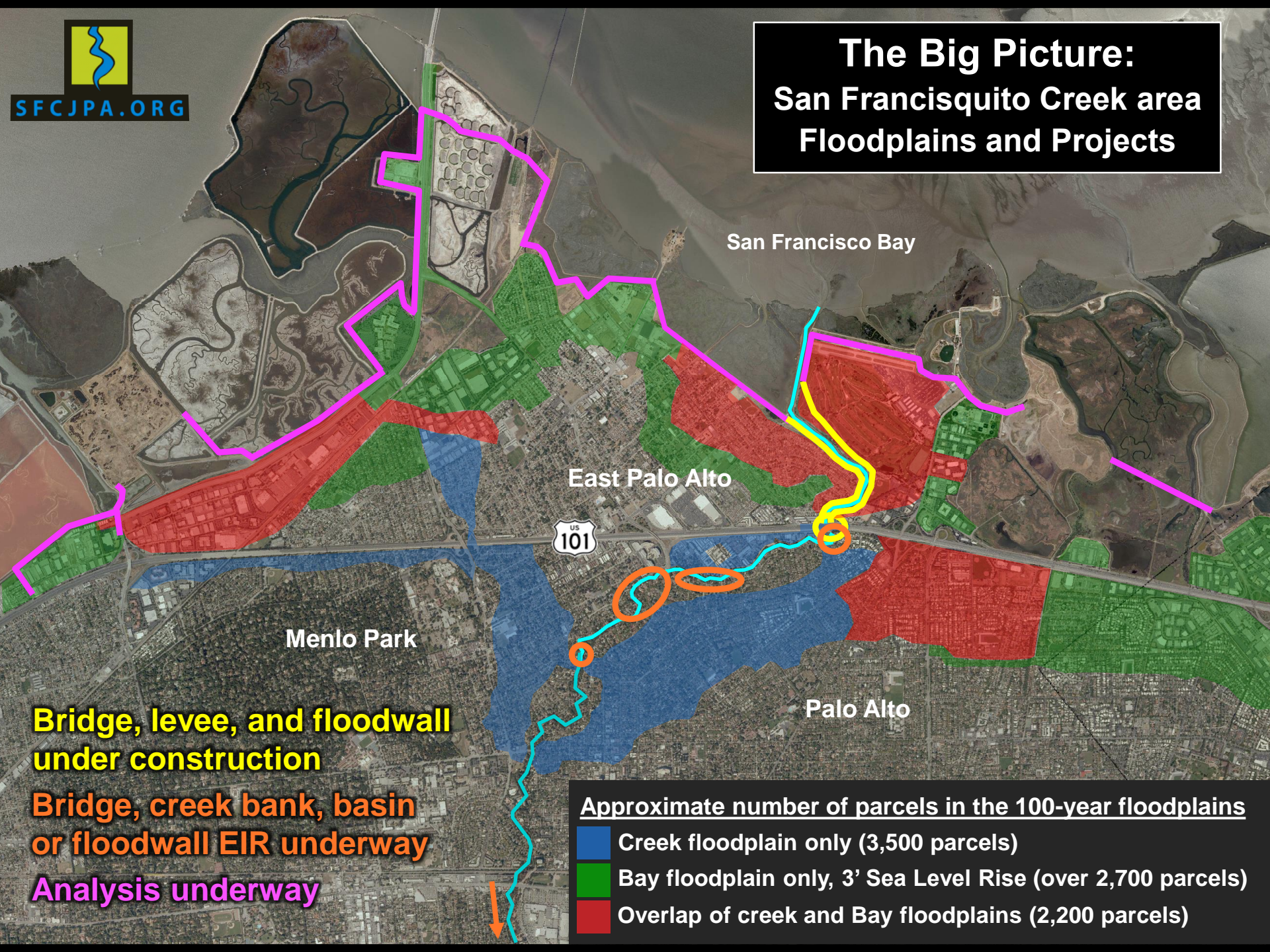
Over 1,700 acres of existing or potential green infrastructure, marshes can provide – and be sustained by – flood protection

6 miles



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The Big Picture: San Francisquito Creek area Floodplains and Projects



**Bridge, levee, and floodwall
under construction**

**Bridge, creek bank, basin
or floodwall EIR underway**

Analysis underway

Approximate number of parcels in the 100-year floodplains

- Blue** Creek floodplain only (3,500 parcels)
- Green** Bay floodplain only, 3' Sea Level Rise (over 2,700 parcels)
- Red** Overlap of creek and Bay floodplains (2,200 parcels)



San Francisquito Creek from S.F. Bay to Highway 101

San Francisquito Creek between S.F. Bay and Highway 101

70 years of development: constraints or opportunities?



S.F. Bay-Highway 101 Project

Under construction through 2018

- Protect against any creek flow in this tidal area with a sea level up to 9 feet above today's high tide
- Create/restore 22 acres of marsh habitat
- Upgrade gas and electric transmission
- Provide recycled water across counties





Dec. 2015

S.F. Bay–Highway 101 project area



October 2017



San Francisquito Creek Upstream of Highway 101



Widen upstream of Hwy. 101 to align with, and take advantage of, work downstream



After Bay-Highway 101 construction is complete in December 2018, the lowest capacity location upstream of Hwy. 101 is Pope-Chaucer Bridge



15-year flow in Feb. 2017



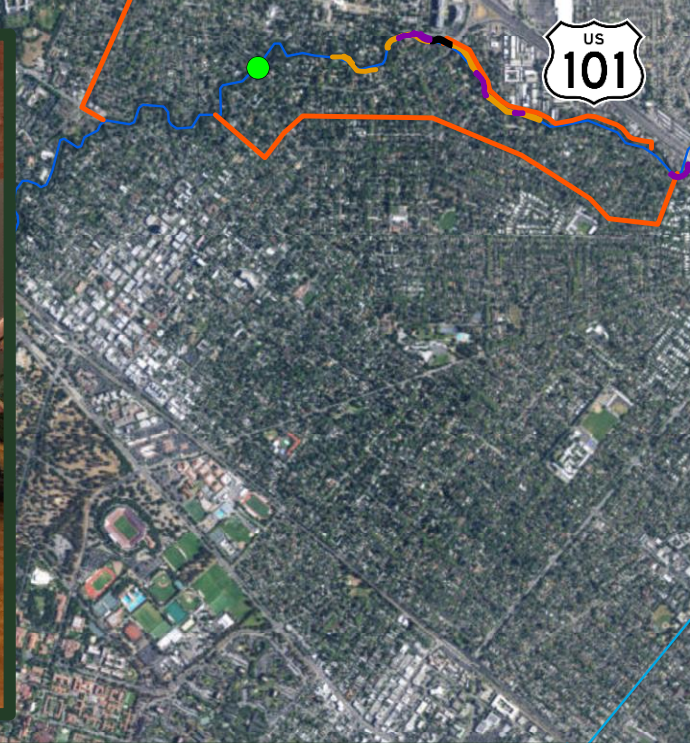
Potential floodwater detention sites west of Hwy. 280

Biological
Preserve

SLAC



New detention basin(s) would begin filling during flows larger than the new minimum capacity downstream

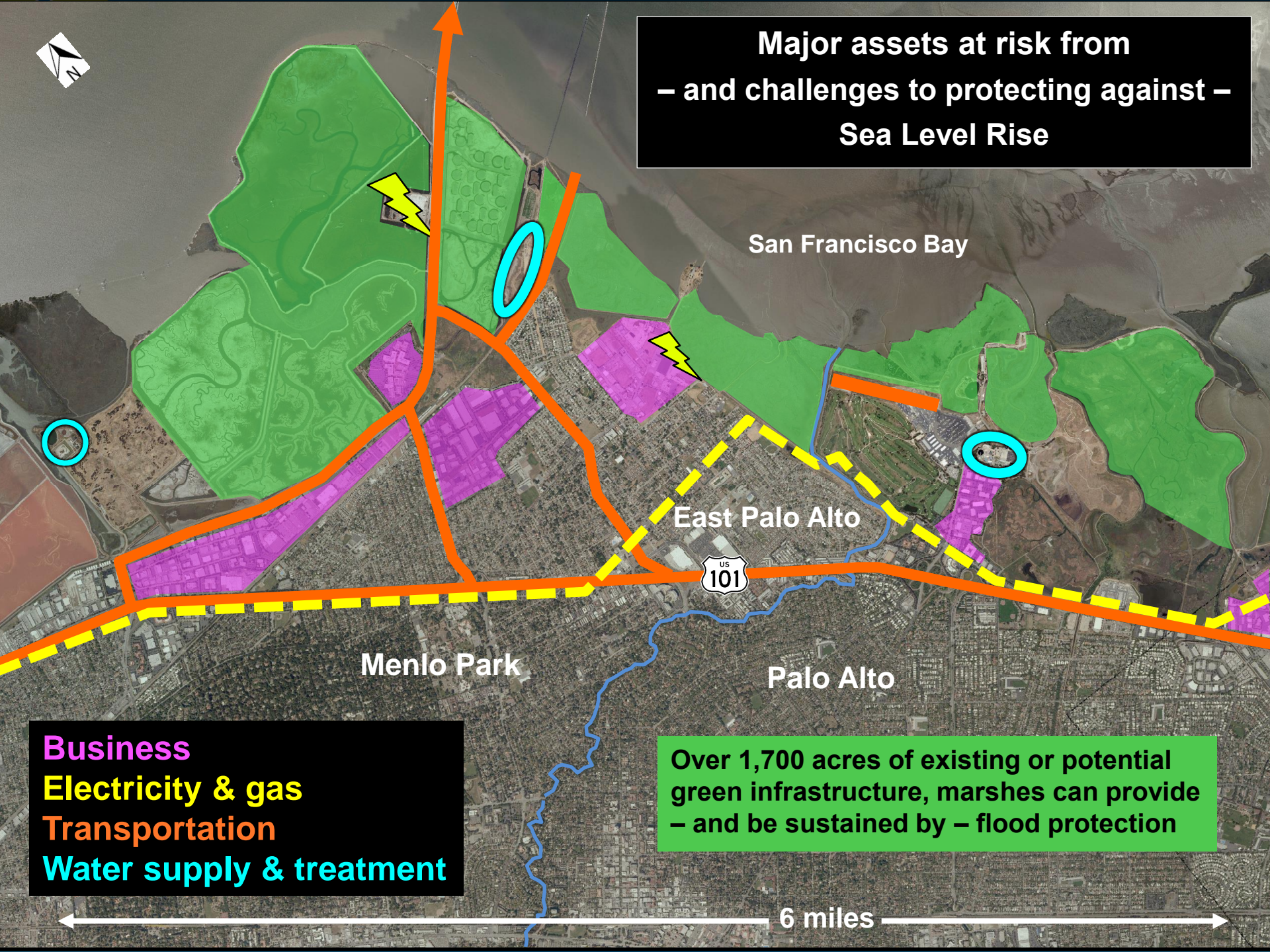


Patha K. Project 2157... Power Authority... Alternatives... v3.mxd User: s4432 Date: 10/02/2017



SAFER Bay shoreline

**Major assets at risk from
– and challenges to protecting against –
Sea Level Rise**



San Francisco Bay

East Palo Alto

Menlo Park

Palo Alto



Business
Electricity & gas
Transportation
Water supply & treatment

**Over 1,700 acres of existing or potential
green infrastructure, marshes can provide
– and be sustained by – flood protection**

6 miles



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SAFER Bay Project

Protect 5,000 properties & major infrastructure, restore marshes, connect communities through trails



Creek project along jurisdictional boundary now under construction links two-county SAFER shoreline

11 miles of shoreline in two counties and three cities

- Remove properties from current FEMA floodplain / sea level 9' above today's daily high tide
- Utilize shoreline marshes for protection in a way that sustains them
- Expand opportunities for recreation and connectivity
- Meet objectives regardless of neighboring action/inaction
- Utilize innovative financing strategies that reflect the diversity of beneficiaries



SAFER Bay along East Palo Alto's shoreline

Coordination with long-term improvements to Bay Road and development of nearby parcels for a new downtown

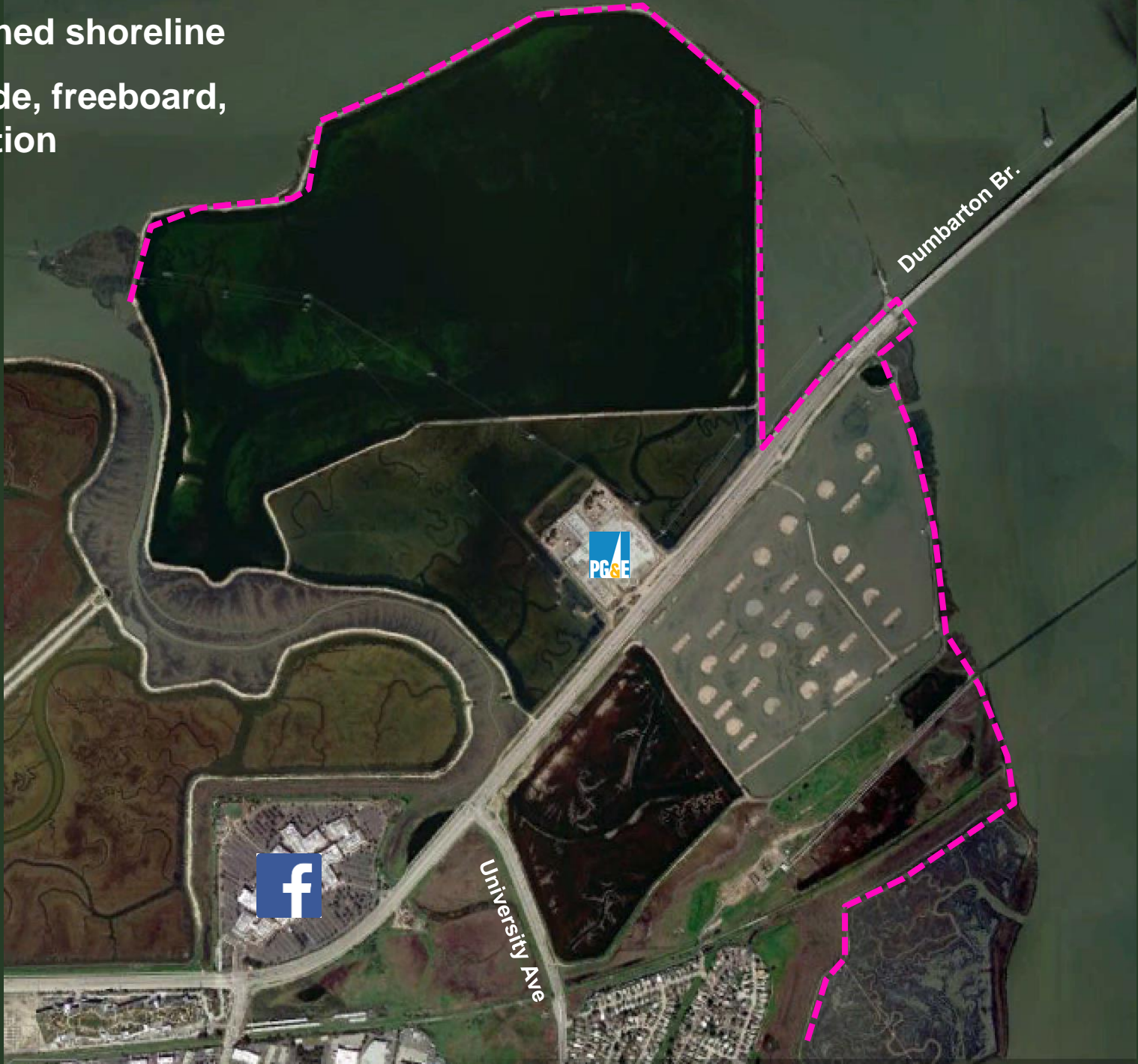


**Regional considerations:
Opening marshes here would affect
sea level in other areas of S.F. Bay**



Current hardened shoreline

No 100-year tide, freeboard, or SLR protection



**SAFER approximate
new hardened shoreline
(Dumbarton option)**



Dumbarton Br.



**Areas that could become
tidal through this option
of the SAFER project**

**SAFER approximate
new hardened shoreline
(PG&E option)**



**Areas that could become
tidal through this option
of the SAFER project**

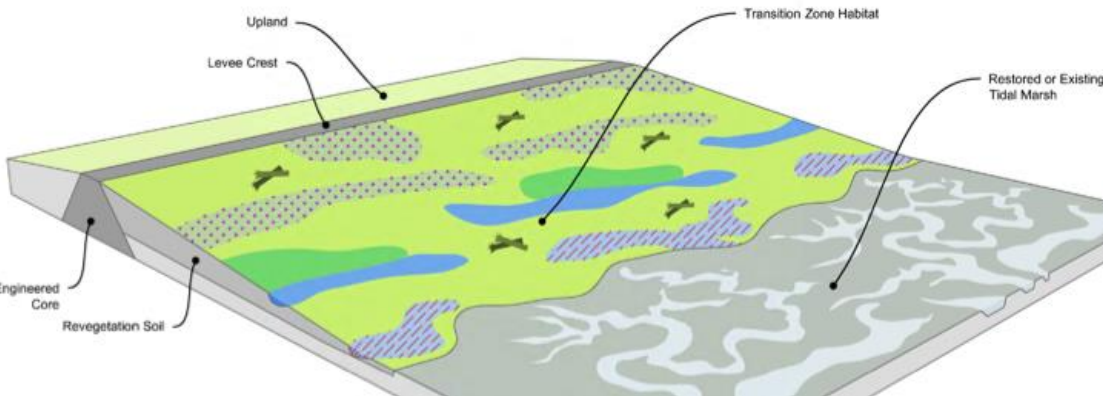
**New hardened shoreline
of the SAFER project
(University Ave option)**



**Areas that could become
tidal through this option
of the SAFER project**

Opportunities for innovations in flood protection

Transition Zone Habitat Features



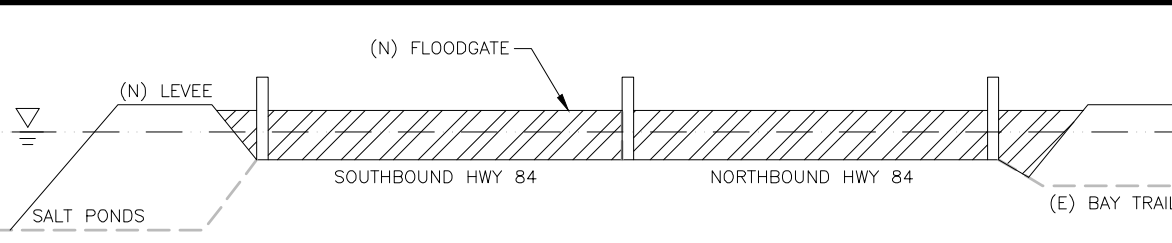
A horizontal levee:

- creates habitat zones to sustain levee and marsh
- captures and stores carbon
- may cost less

Challenges: finding right soil, regulatory approval

A hydrostatic floodwall is a flat road or trail until floodwaters raise a wall.

Challenge: approval for State of CA roads



Opportunities for innovations in financing

Multiple public and private partners on a regional scale

In last 6 years: \$95 million for planning, design and construction

- Water districts of two counties
- Cities of Palo Alto, East Palo Alto and Menlo Park
- Private utilities
- State of California (transportation, water, coastal agencies)
- U.S. government
- Facebook, Inc.

52% local, 36% State, 11% private, 1% federal

Potential funding sources being explored

- New finance district bond
- Bay Restoration Authority regional tax to enhance shoreline
- Aggregate private flood insurance
- Private companies/utilities
- Cap & trade carbon market



Flood Early Warning System

FLOOD MAP

RECEIVE ALERTS

REPORT A PROBLEM

BACKGROUND DATA

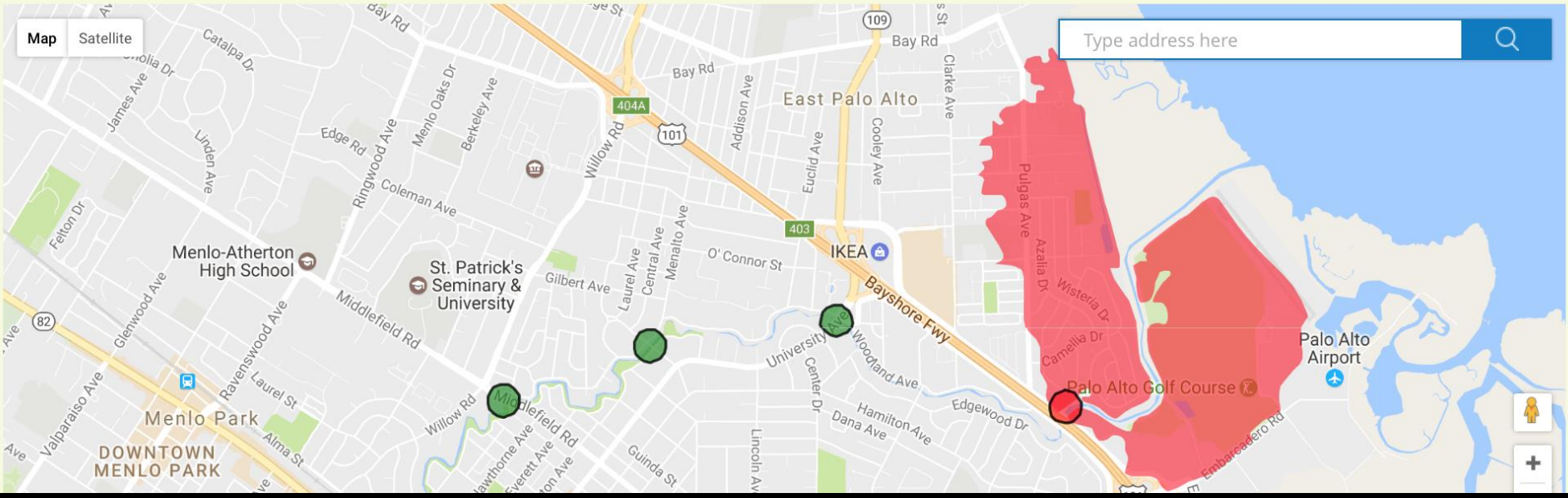
ABOUT

PALO ALTO CREEK MONITOR WEBSITE

February 7, 2017 01:31:06 pm The information on this website updates every 15 minutes — for current conditions, periodically refresh or relaunch this website.

**** FLOOD WARNING: UNTIL ABOUT 2:30 PM ON FEB. 7, SF CREEK MAY FLOOD AT WEST BAYSHORE ROAD, AS INDICATED BY THE RED CIRCLE ON THE MAP BELOW. WE ARE MONITORING OTHER LOCATIONS, BUT DO NOT ANTICIPATE FLOODING AT THOSE LOCATIONS AT THIS TIME. ****

PLEASE NOTE: For specific and timely information regarding emergency response in your community, click on the link under Local Agencies Emergency Websites below. Please do NOT call 9-1-1 unless there is an imminent threat to life or property.





FLOOD MAP

RECEIVE ALERTS

REPORT A PROBLEM

BACKGROUND DATA

ABOUT

PALO ALTO CREEK MONITOR WEBSITE

Sign up here to receive email or text alerts specific to San Francisquito Creek



Enter your mobile number to receive a text when flood conditions change



Mobile Number



Enter your e-mail address to receive a message when flood conditions change

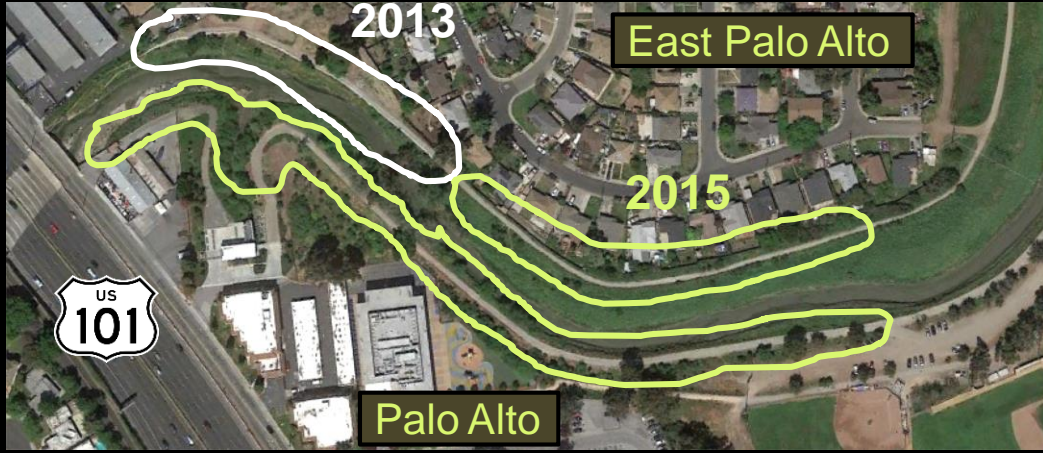


Email Address



SFCJPA.ORG

Raising levee heights adjacent to SF Creek where flooding has occurred



Public outreach through English & Spanish mailings, e-mail and social media and multiple community meetings

Dear Neighbor:

With predictions of strong El Niño storms this winter season, your local public agencies are working together to prepare San Francisquito Creek for high flows. In this mailer, you'll find important information about our preparedness efforts and actions you can take as a resident along the creek and in the flood zone.

Immediate creek improvements

During a creek-walk this fall, we identified short-term improvements to prepare the creek for high flows. Fallen trees and debris were removed to allow the creek to hold more water during a storm. Eroded creek banks were filled in and reinforced. We identified locations along the top of the creek bank to add sandbags. The existing shotcrete floodwalls (sandbags covered with concrete) downstream (east) of Highway 101 were extended and flap gates were installed at flood-prone storm drains to keep the water from overflowing into the streets.

Estimado vecino:

Con predicciones de fuertes tormentas de invierno, sus organizaciones locales están trabajando juntos para preparar San Francisquito Creek para altas corrientes. En este anuncio publicitario, encontrará información importante acerca de nuestros esfuerzos de preparación y acciones que puede tomar como residente a lo largo del arroyo y en la zona de inundación.

Mejoras inmediatas al arroyo

Después de un paseo por el arroyo, identificamos mejoras inmediatas para preparar el arroyo para altas corrientes. Los árboles caídos y escombros fueron removidos para permitir que el arroyo pueda sostener más agua durante una tormenta. Las orillas erosionadas fueron reforzadas. Identificamos lugares para añadir sacos de arena. Los

Winter Preparedness

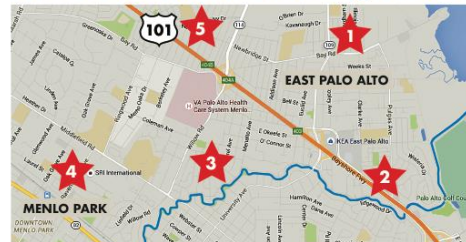
Do you need flood insurance?

Did you know that your basic homeowners insurance does not cover losses from flooding?

The federal government offers disaster assistance in the form of reconstruction loans only in a declaration of a federal emergency. Unlike disaster loans, you won't need to repay money from flood insurance.

Federal law requires flood insurance if you have a federally regulated mortgage and your building is in an area shown on maps prepared by the Federal Emergency Management Agency (FEMA) as subject to flooding during a one

Filled and unfilled sandbag stations



Preparándose para el invierno

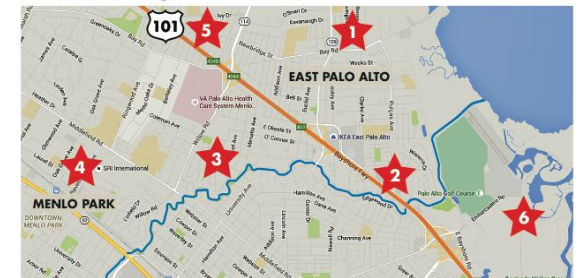
¿Requiere un seguro contra inundaciones?

Su seguro básico de propietario de vivienda no cubre las pérdidas ocasionadas por las inundaciones.

El gobierno federal ofrece asistencia en caso de desastre natural en forma de préstamos para la reconstrucción sólo si se ha declarado una emergencia federal. A diferencia de los préstamos para desastres, usted no tiene que devolver el dinero pagado del seguro contra inundaciones.

La ley federal exige un seguro contra inundaciones, si usted tiene una hipoteca realmentada federalmente y su

Estaciones para sacos de arena



Thank you

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