

# Funding a More Holistic Effort - Bringing In New Partners and Resources

## *Case Study: San Mateo County Shoreline Vulnerability Assessment*

**Craig Conner**  
Flood Risk Management  
Program Manager  
San Francisco District

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US Army Corps of Engineers  
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# Study Description

## What will this study accomplish

Collect data and synthesize prior studies

Identify and categorize assets

Inundation exposure analysis and mapping

Vulnerability and risk analysis

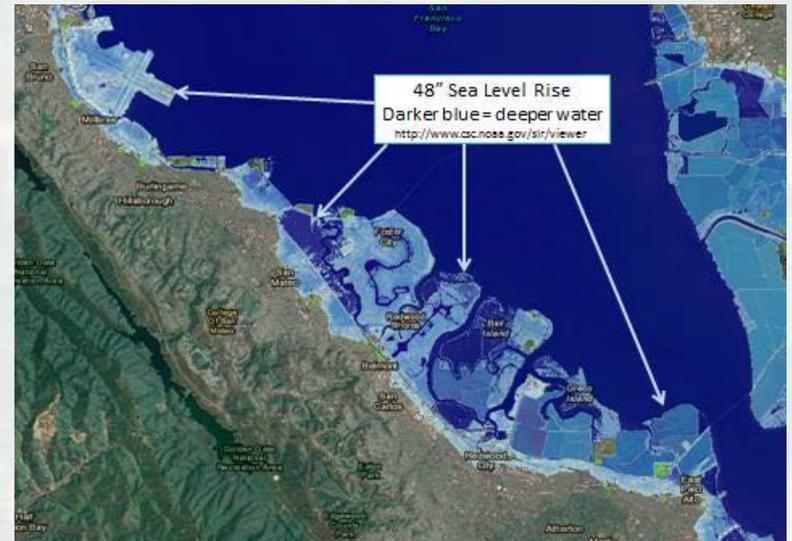
Adaptation planning

Actionable outcomes



ARCADIS

- Costs: \$687,500
- Duration: January 2015 – July 2016



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# Asset Vulnerability

## ■ Asset Vulnerability Profiles

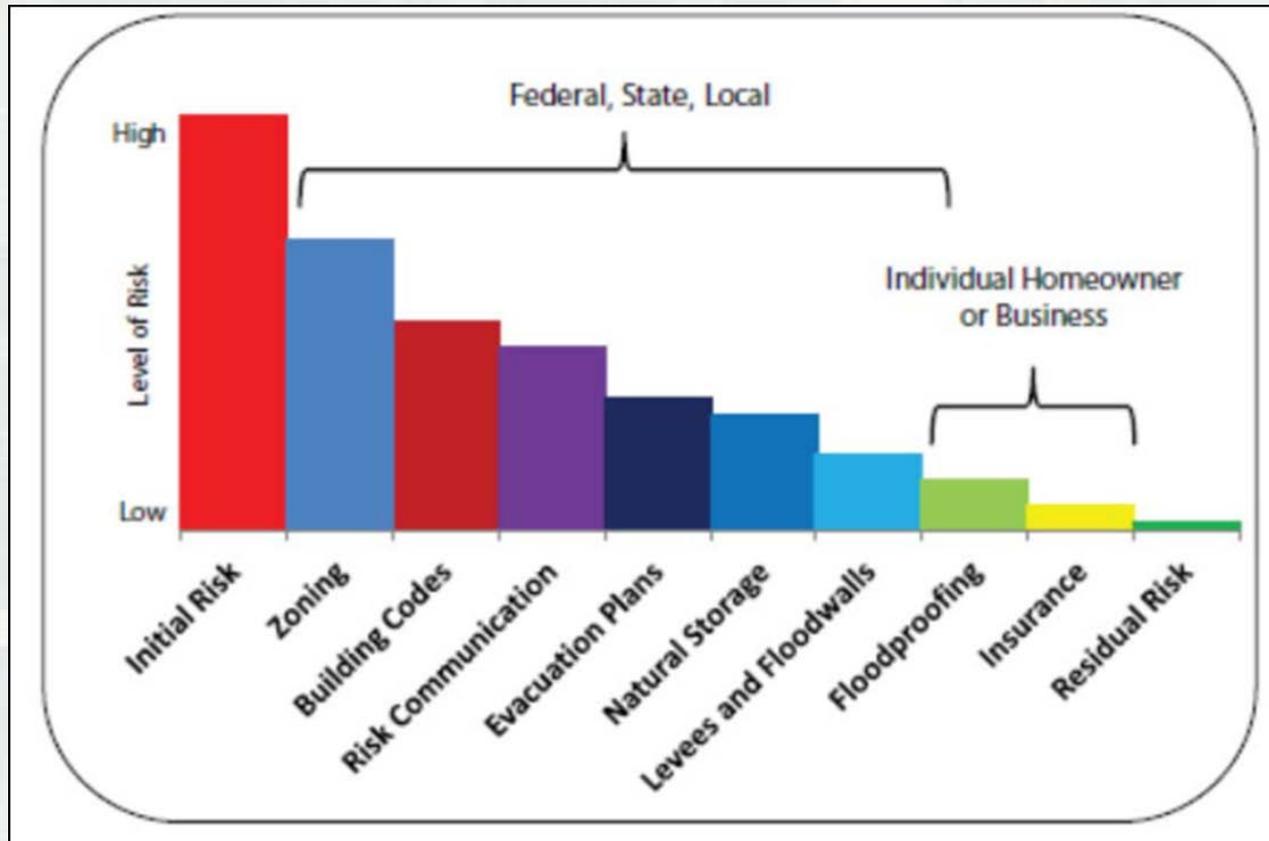
- ▶ 30 representative assets
- ▶ Describing
  - Asset Characteristics
  - Vulnerabilities (including: exposure, sensitivity and adaptive capacity)
  - Risks (including consequences)

Harbor Department

Port of Los Angeles  
Marinas  
425 South Palos Verdes Street  
San Pedro California 90731

Asset Overview		
Owner: Port of Los Angeles		
City Department and Point of Contact: Harbor		
Regulatory Oversight: California Coastal Commission, California Department of Boating and Waterways		
Description of Assets: Marinas are docks with moorings for relatively small boats.		
Current Observed Vulnerabilities		
Although the Port's assets are highly sensitive to flooding and inundation, the port has low vulnerability because of its high capacity to adapt by building future infrastructure at a higher elevation.		
Physical Vulnerability to Sea Level Rise Based on USGS Exposure Analysis		
Sensitivity (MEDIUM)	Adaptive Capacity (HIGH)	Consequences (MEDIUM)
Marinas are sensitive to storm-related flooding, daily tidal flooding, and erosion, because they would be damaged by such impacts.	Marinas are relatively resilient to storm-related flooding, because they float on the water, but their groundings would become deteriorated from daily tidal flooding and erosion. In addition, these impacts could reduce access to the marinas.	The consequences of impaired marinas primary relate to their recreational value. They also have an estimated \$180 million replacement value. Lastly, permanent residents of the marinas could potentially be displaced.
Replacement value (e.g., cost of inaction)		\$180 million

# Adaptation Planning considers all available measures



**SEA CHANGE**  
SAN MATEO COUNTY

<http://seachangesmc.com/>

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# Motivation for the Study

- FEMA updated maps and conducted bay shoreline studies (i.e. new FIRMs)
- San Francisco Bay Conservation and Development Commission (BCDC) revises its sea level rise policies and conducts multiple Adapting to Rising Tides (ART) studies
- Congressional Representative Jackie Speier, State, and County host San Mateo County Sea Level Rise Forum (DEC 2013)
- Corps invited to San Mateo County and Cities meeting on financing sea level rise and FRM studies and projects (SEP 2014)
- County & California State Coastal Conservancy apply for FY15 Interagency project funds

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# Study Partners

- California State Coastal Conservancy (80%)

“The Coastal Conservancy acts with others to preserve, protect, and restore the resources of the California coast, ocean, and the San Francisco Bay Area. Our vision is of a beautiful, restored, and accessible coastline, ocean and San Francisco Bay Area.”

- San Mateo County (3%)

“The County of San Mateo provides for the health and welfare of all people within its borders and serves as the local government for the unincorporated areas.”

- California Department of Water Resources (3%)

- USGS (<1%)

- USACE (14%)

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# Study Outcomes/Benefits

- Findings will indirectly result in projects that will reduce flood risk.
- Findings will indirectly result in projects that will provide ecosystem restoration benefits.
- Study will help prioritize project that should reduce the mitigation cost for future floods.
- Findings of the project will educate the public about the need for near-term public works projects and adaptive strategies to address current and future flooding.
- Collaboration with multiple agencies, cities, and the public
- The County is considering forming a dedicated flood control district.

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# Who Benefits?

- County (including unincorporated areas)
- Municipalities
- Special Facilities (hospitals, schools, police & fire stations, etc.)
- Utilities
- Businesses
- Residents



# Potential for PPP?

## CHALLENGES

- Public views FRM ('flood control') as inherently Governmental
- SF Bay area has historically received Federal funds to fix problems in a reactive manner
- Momentum for a \$12 parcel tax to pay for wetlands restoration & some FRM

## POSSIBILITIES

- Businesses are being informed about their flood risk
- Other FRM & multi-purpose projects have received private funds (see next column)



## PPP EXAMPLES

- Facebook is partially funding the SAFER Bay project
- Surviving the Storm project done by Bay Area Economic Council & partially funded by the Moore Foundation
- Google is funding SF Baykeeper to photograph the entire SF Bay shoreline from the water.

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# Thank You for Listening

Craig Conner

[Craig.S.Conner@usace.army.mil](mailto:Craig.S.Conner@usace.army.mil)

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