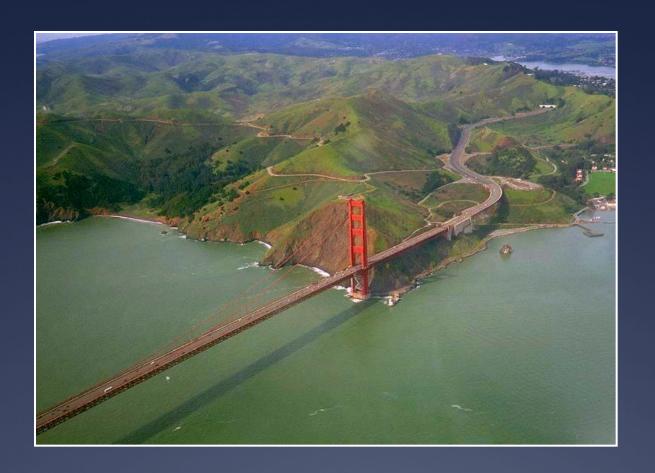
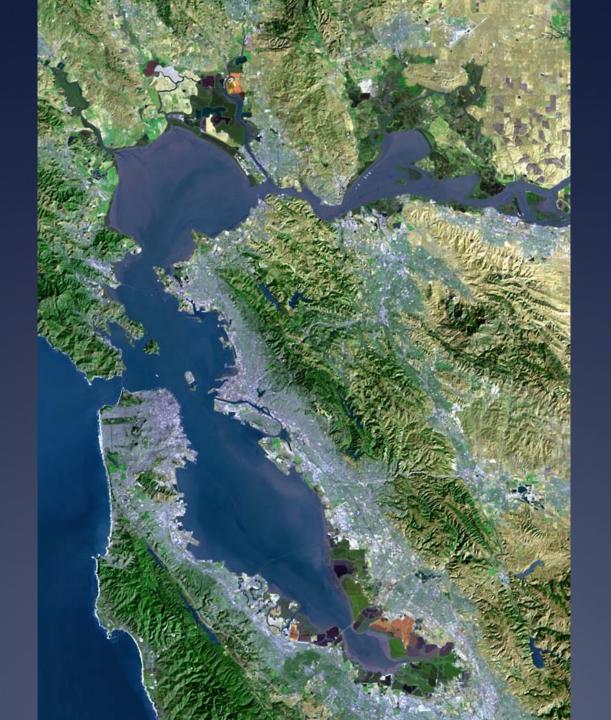
#### **BCDC Regional Climate Strategy**



Steve Goldbeck, Chief Deputy Director
San Francisco Bay Conservation and Development Commission





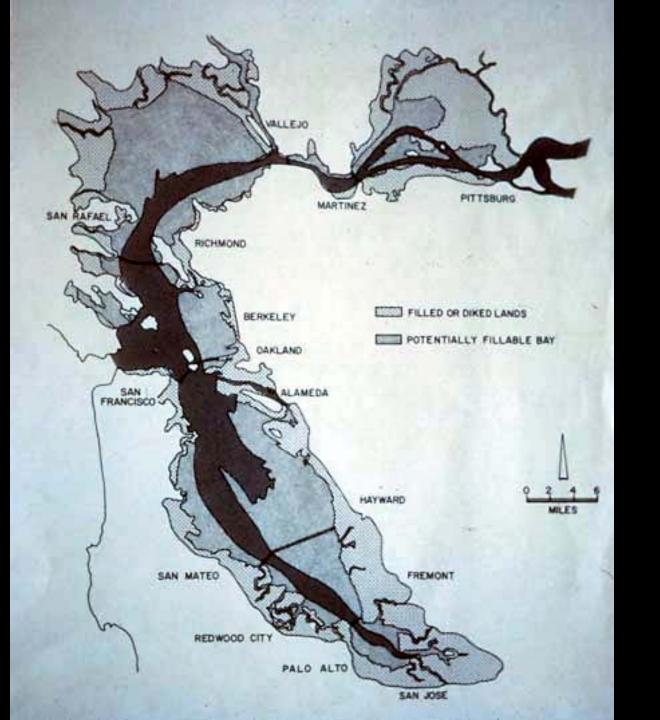
19 Harren

## SAN FRANCISCO (BOCK) (B)



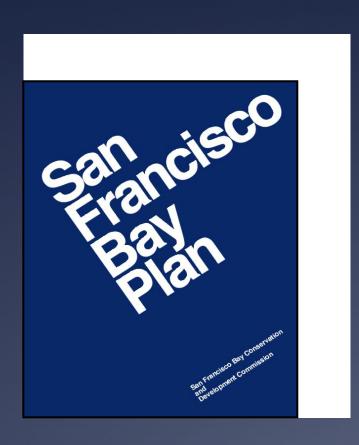








#### The Bay Plan



- \* Findings
- \* Policies
- \* Maps
- \* Map Policies and Notes

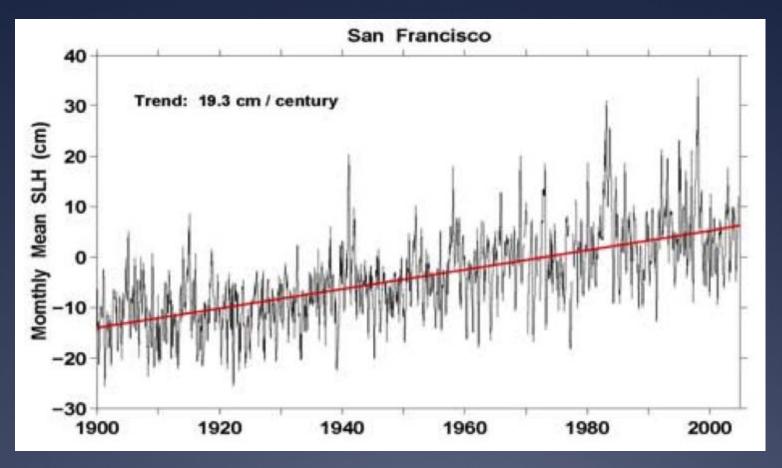








# San Francisco-observed sea level with trend of 19.3 cm (0.63 feet) per century

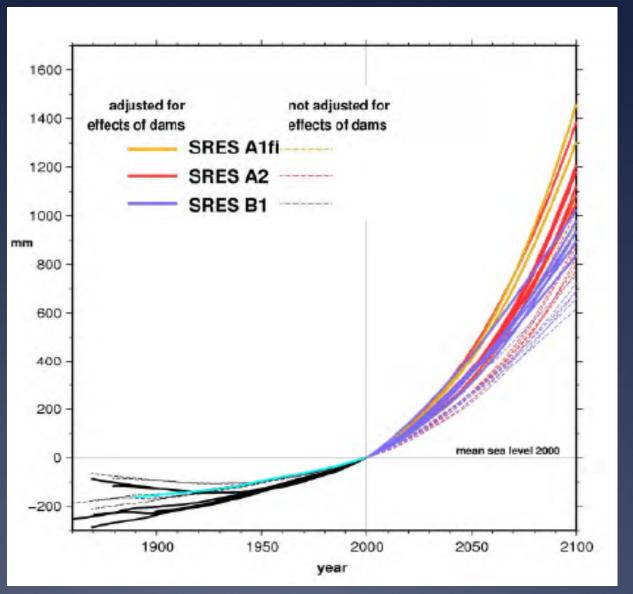


Source: California Climate Action Team Report 2006

### Projected Sea Level Rise

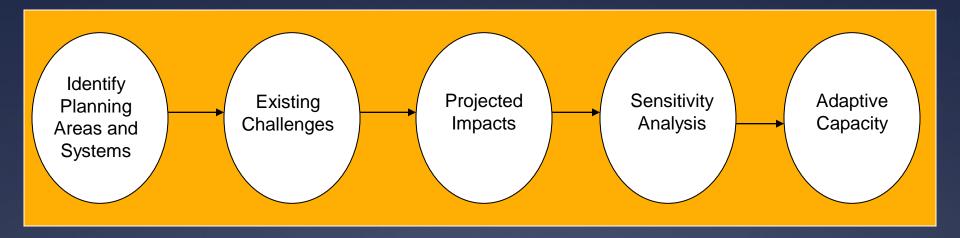
Three Emissions Scenarios:

- A1fi High
- A2 Medium High
- B1 Low



Source: California Climate Action Team Report 2009

### **Vulnerability Analysis**

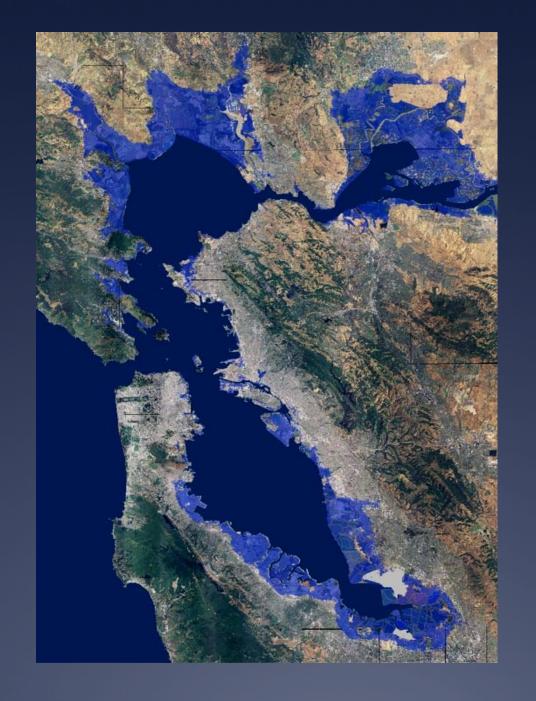


#### Scenarios SLR

\* 16 inches (40 cm) of sea level rise at 50 years

\* 55 inches (140 cm) at 100 years

\* Prepared by USGS (Knowles)



#### Potential Inundation

\* About 281 square miles of shoreline vulnerable to flooding with 16 inches of sea level rise.

\* Approximately 332 square miles vulnerable at 55 inches/

### San Francisco International Airport

Sixteen Inch and Fifty-five Inch Sea Level Rise

Sixteen Inch Sea Level Rise and

Fifty-five Inch Sea Level Rise

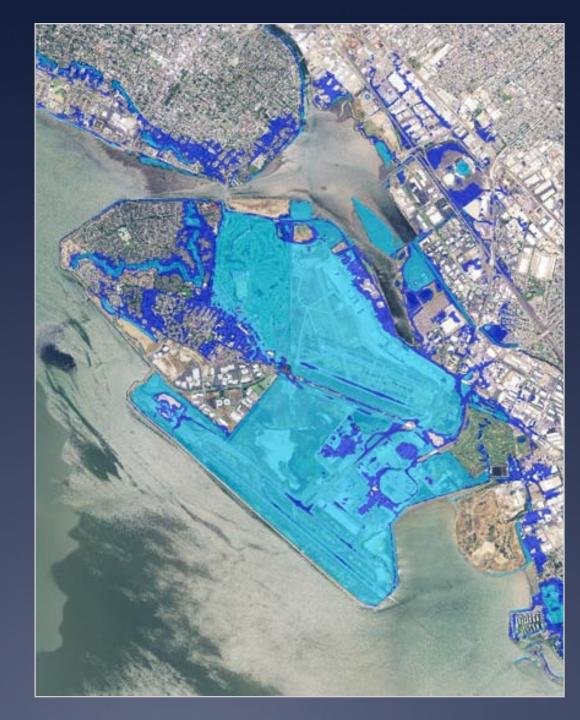


### Oakland International Airport

Sixteen Inch and Fifty-five Inch Sea Level Rise

Sixteen Inch Sea Level Rise and

Fifty-five Inch Sea Level Rise





#### South Bay Central

16" SLR

55" SLR

### Consequences

- \* Approximately 270,000 residents vulnerable to flooding
- \* Approximately 81 schools
- \* 11 fire stations
- \* 9 police stations
- \* 42 healthcare facilities

#### Silicon Valley

Sixteen Inch and Fifty-five Inch Sea Level Rise

Sixteen Inch Sea Level Rise and

Fifty-five Inch Sea Level Rise



#### Costs

\* \$62 Billion replacement value SF Bay Area

\* \$32 Billion for the rest of Ca shoreline

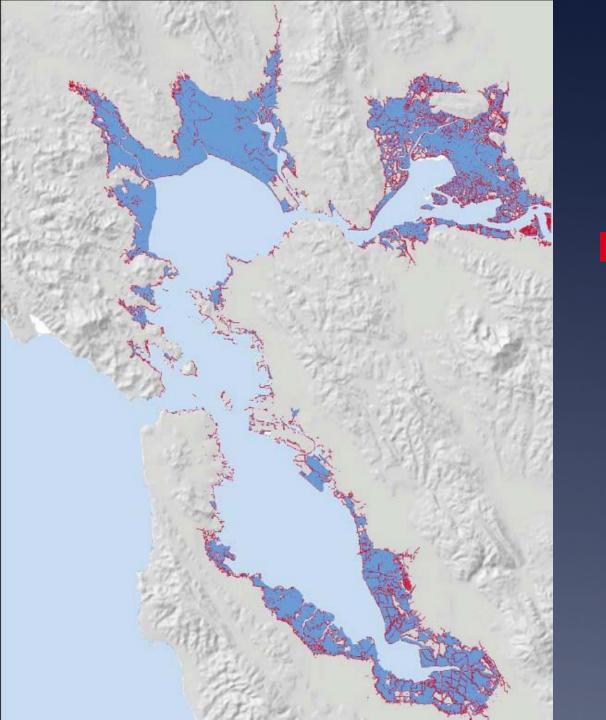
### 











Today's Flood is Tomorrow's High Tide

Area subject to high tide with 16 inches of sea level rise

Current 100-year flood plain

Sancisco

San Francisco Bay Conservation and Development Commission



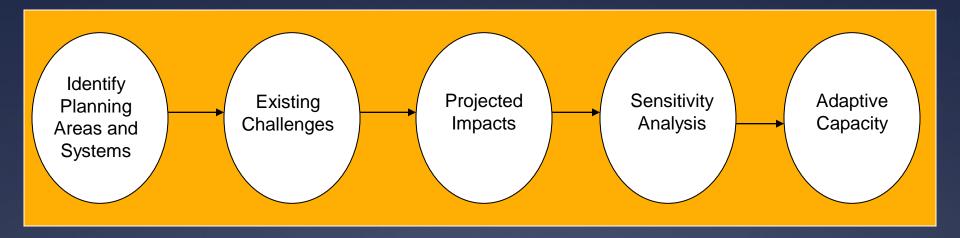
#### Public Discourse

- \* Three-year process
- \* 35 public hearings

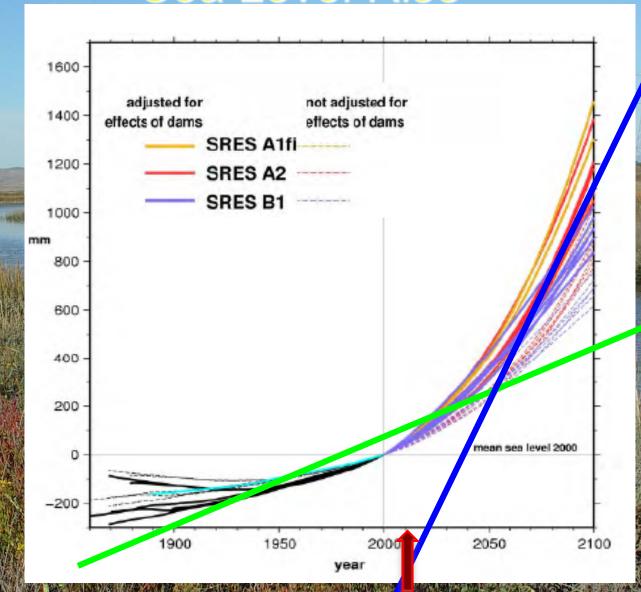
#### Public Discourse

- \* Met with local governments
- \* Met with economic, equity & environmental groups

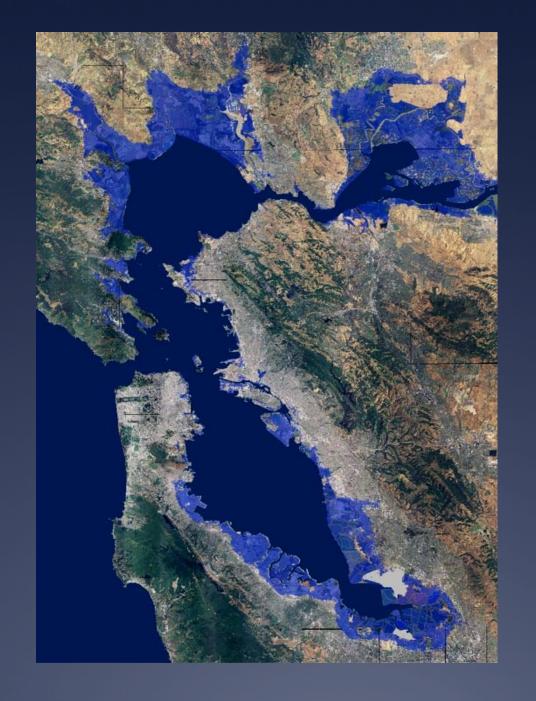
### **Vulnerability Analysis**



Planning Is Needed For Two Periods Of Sea Level Rise

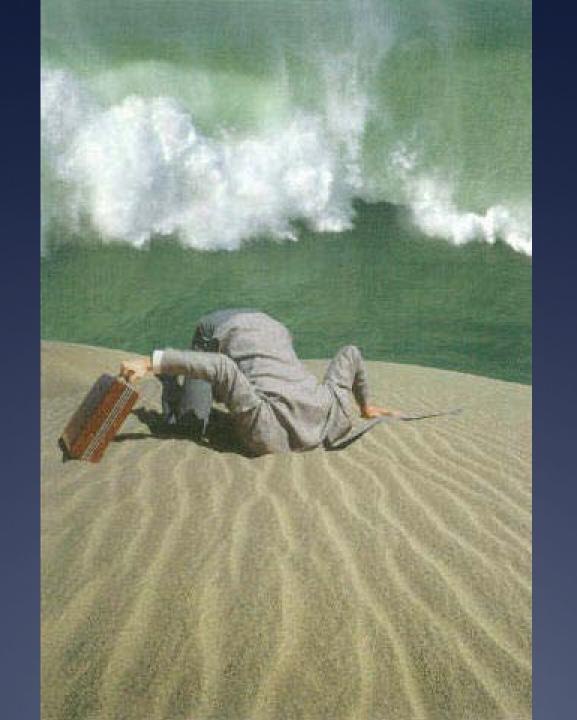


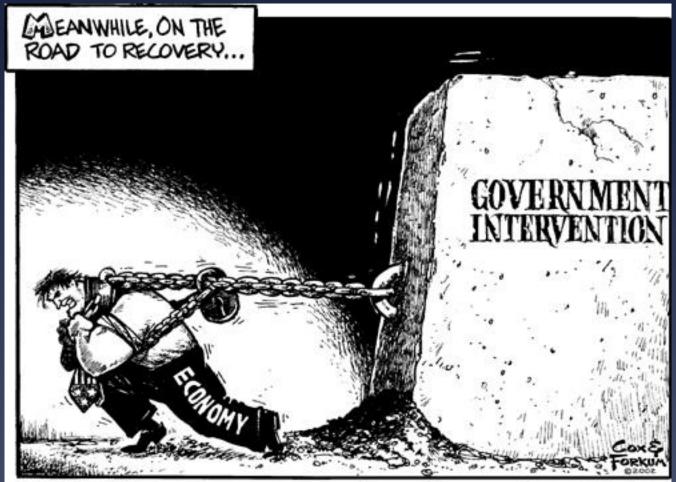




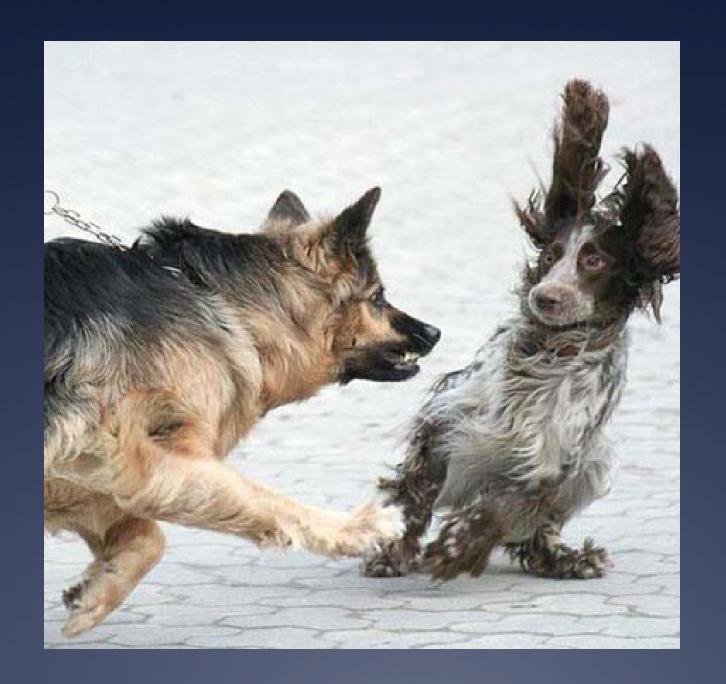
## Port of Redwood City Wharves



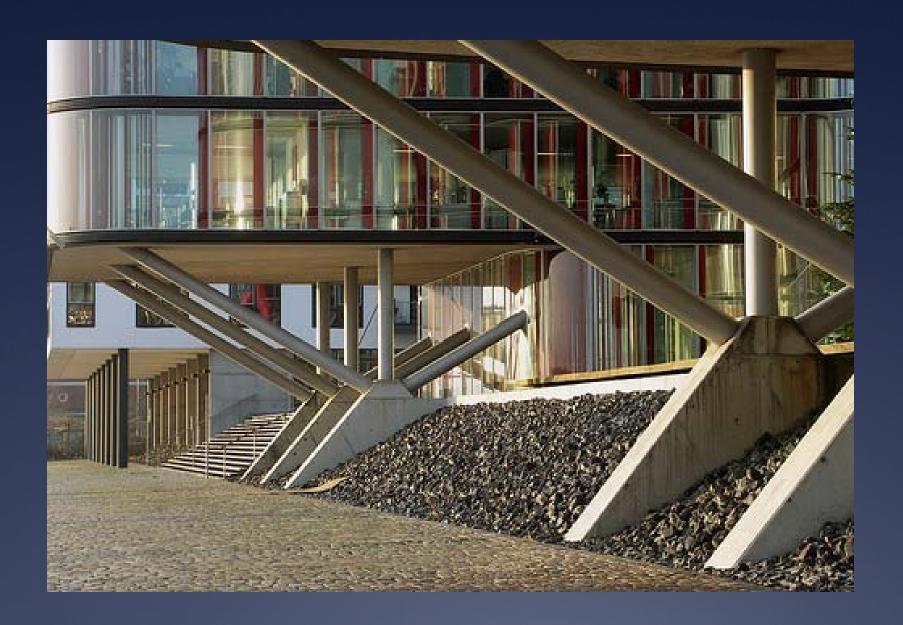




www.CoxAndForkum.com







# Adapting to Rising Tides Bay Area Communities Working Together

# The ART Subregion

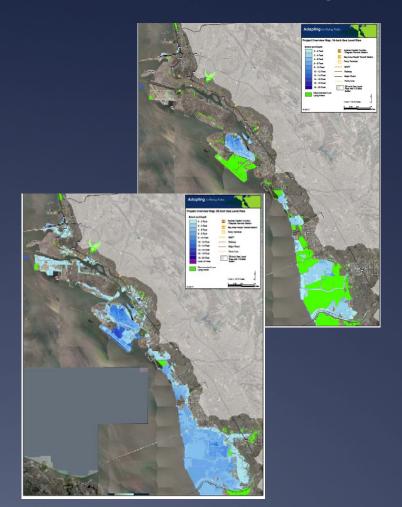


#### Assess

#### New, Refined Sea Level Rise and Storm Event Maps

#### Areas potentially exposed to:

- frequent or permanent inundation
- more frequent floods or floods that last longer
- overtopping of shoreline protection
- elevated groundwater and salinity intrusion



## Adaptation Horizons -

O Plan, Save, No Regrets, New Projects, Monitor



Build Flood
Protection,
Restoration
and other
Adaptation
Needs



2050>



#### Scope & Organize

### ART Collaborative Project Management

- \* San Francisco Bay Conservation and Development Commission
- \* NOAA Coastal Services Center
- \* U.S. Department of Transportation Federal Highway Administration
- ★ Metropolitan Transportation Commission
- \* California Department of Transportation
- ICLEI Local Governments for Sustainability













