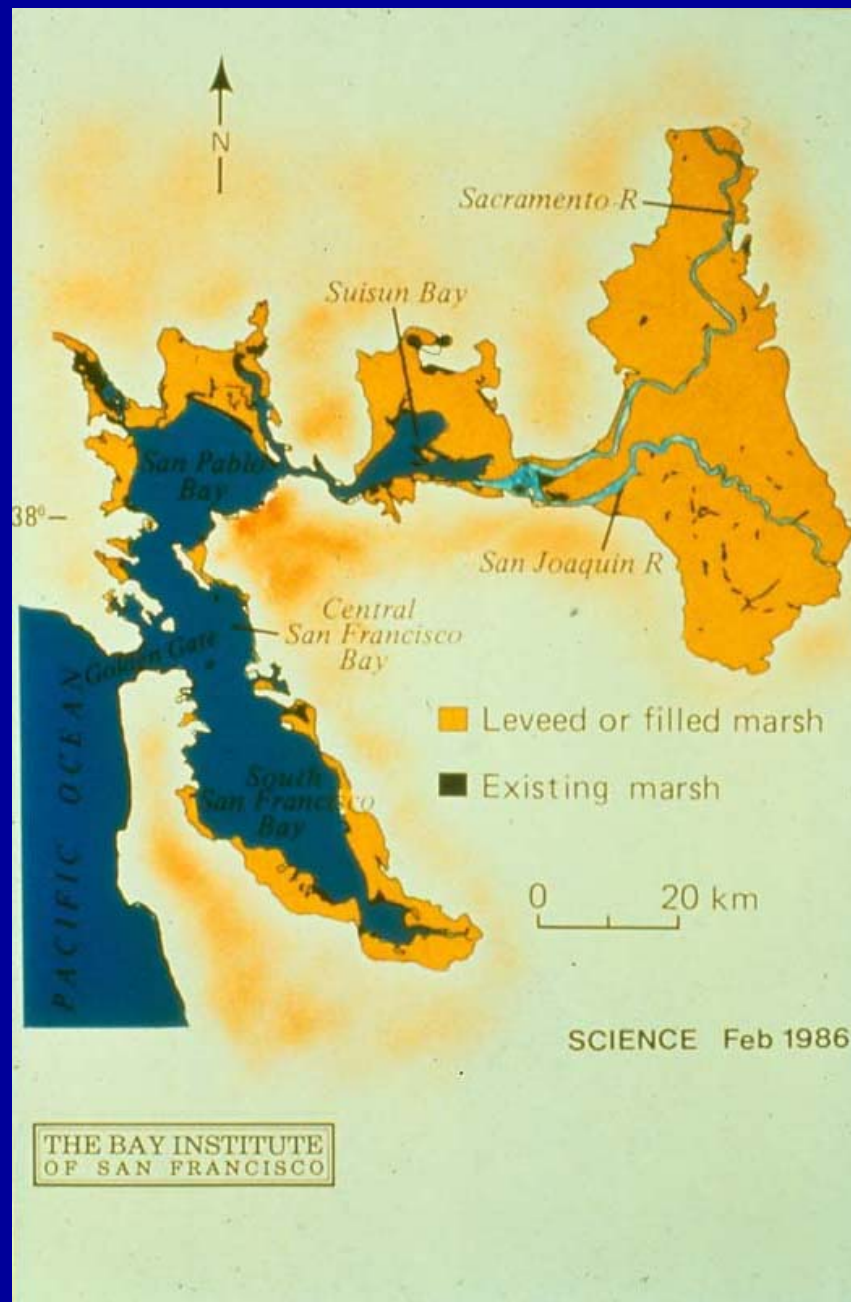


# *Impacts of Global Climate Change on San Francisco Bay*



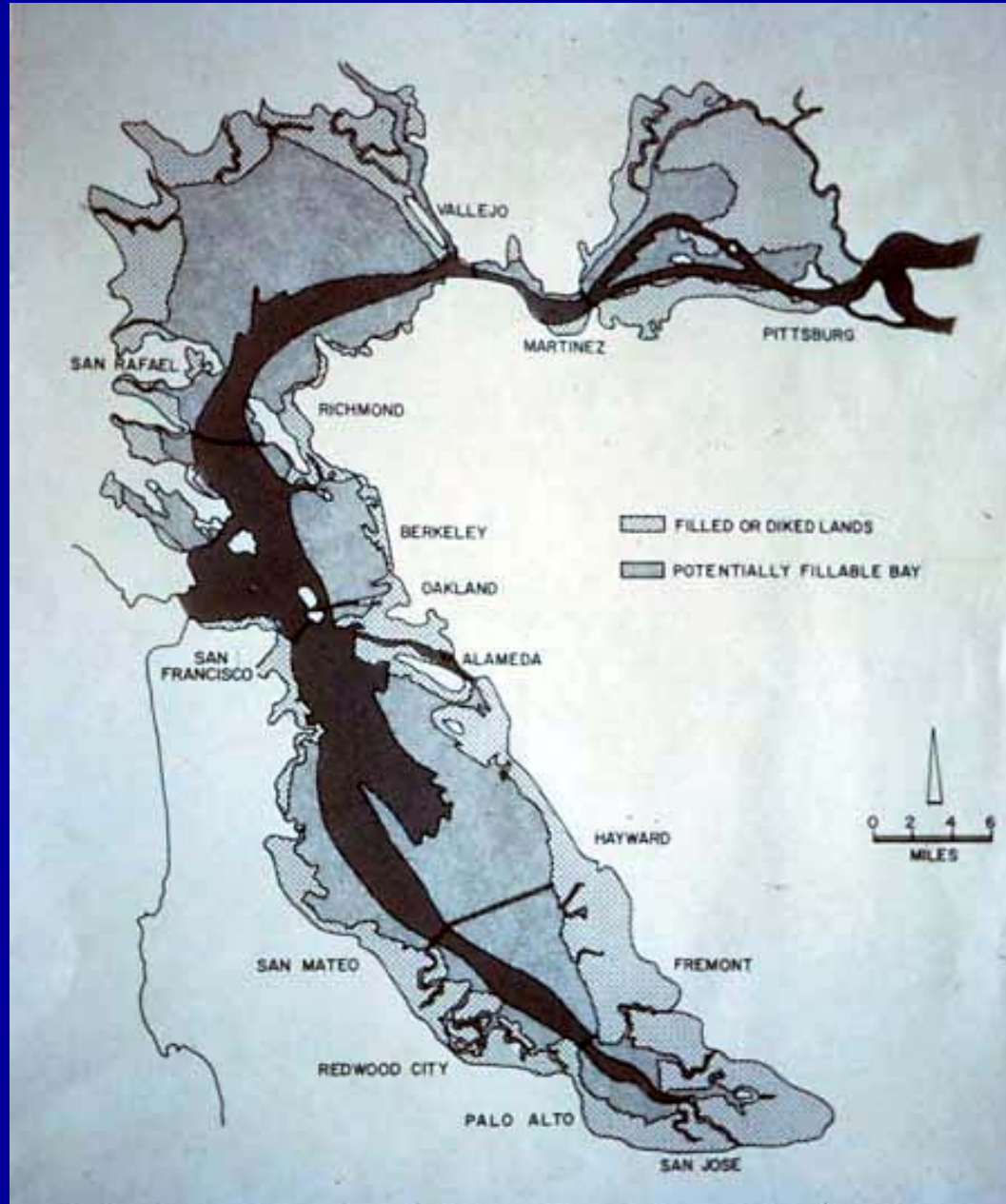
San Francisco Bay Conservation and  
Development Commission





THE BAY INSTITUTE  
OF SAN FRANCISCO

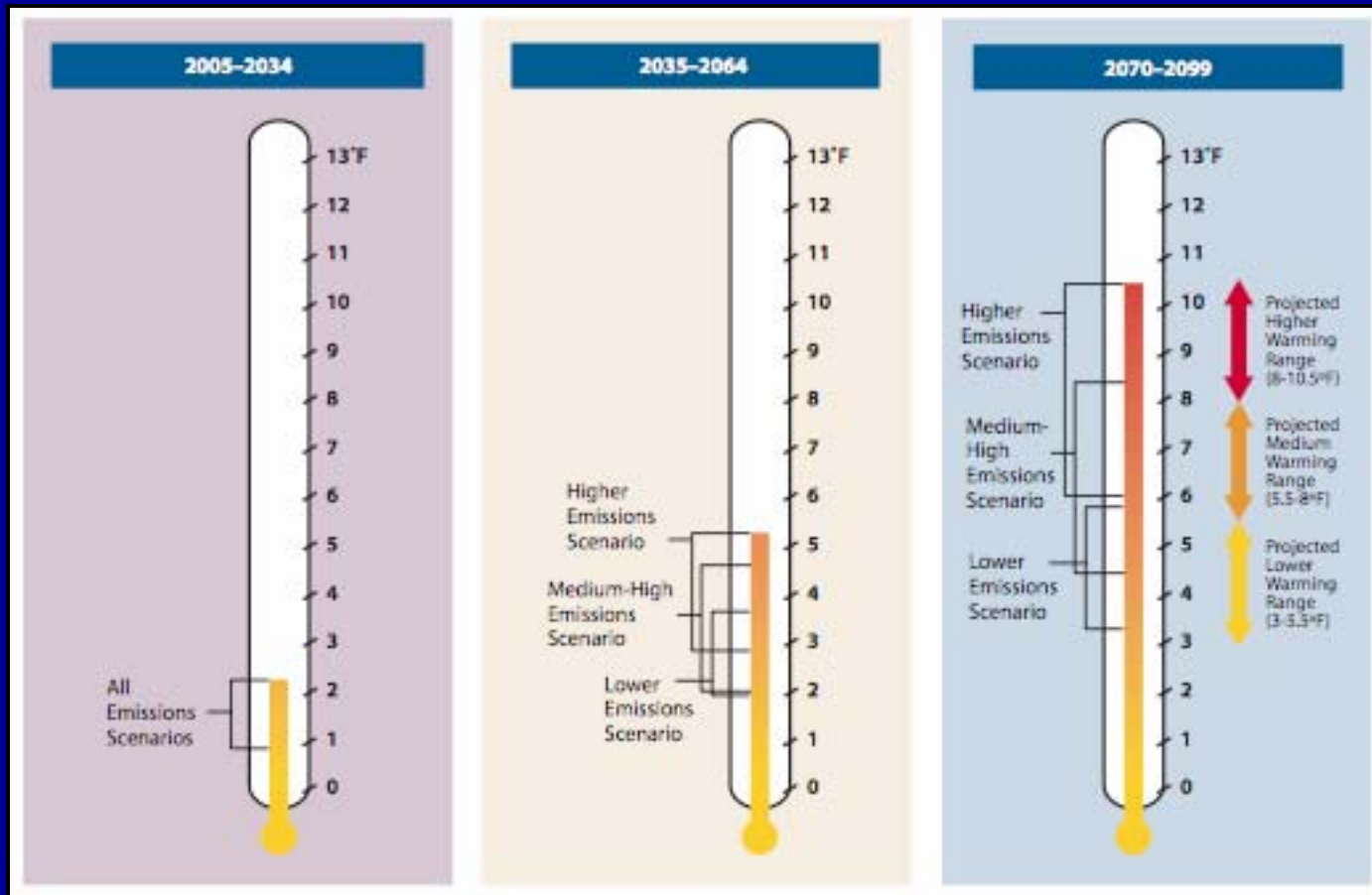






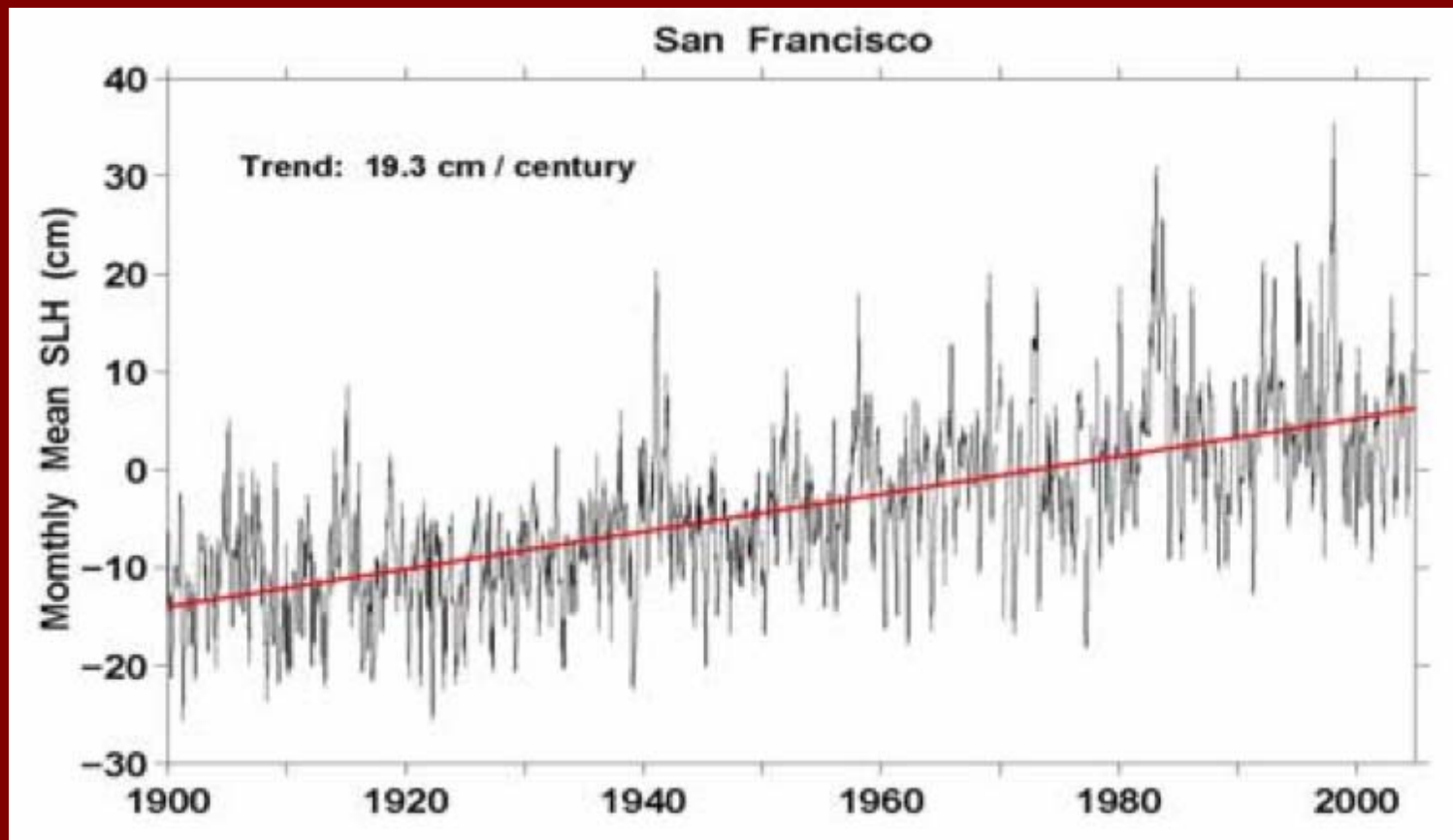
# Climate Change Scenarios for California

Three Emissions Scenarios: Lower, Medium-High, Higher



Source: California Climate Change Center 2006

*San Francisco-observed sea level with trend of 19.3 cm (7.6 inches) per century*



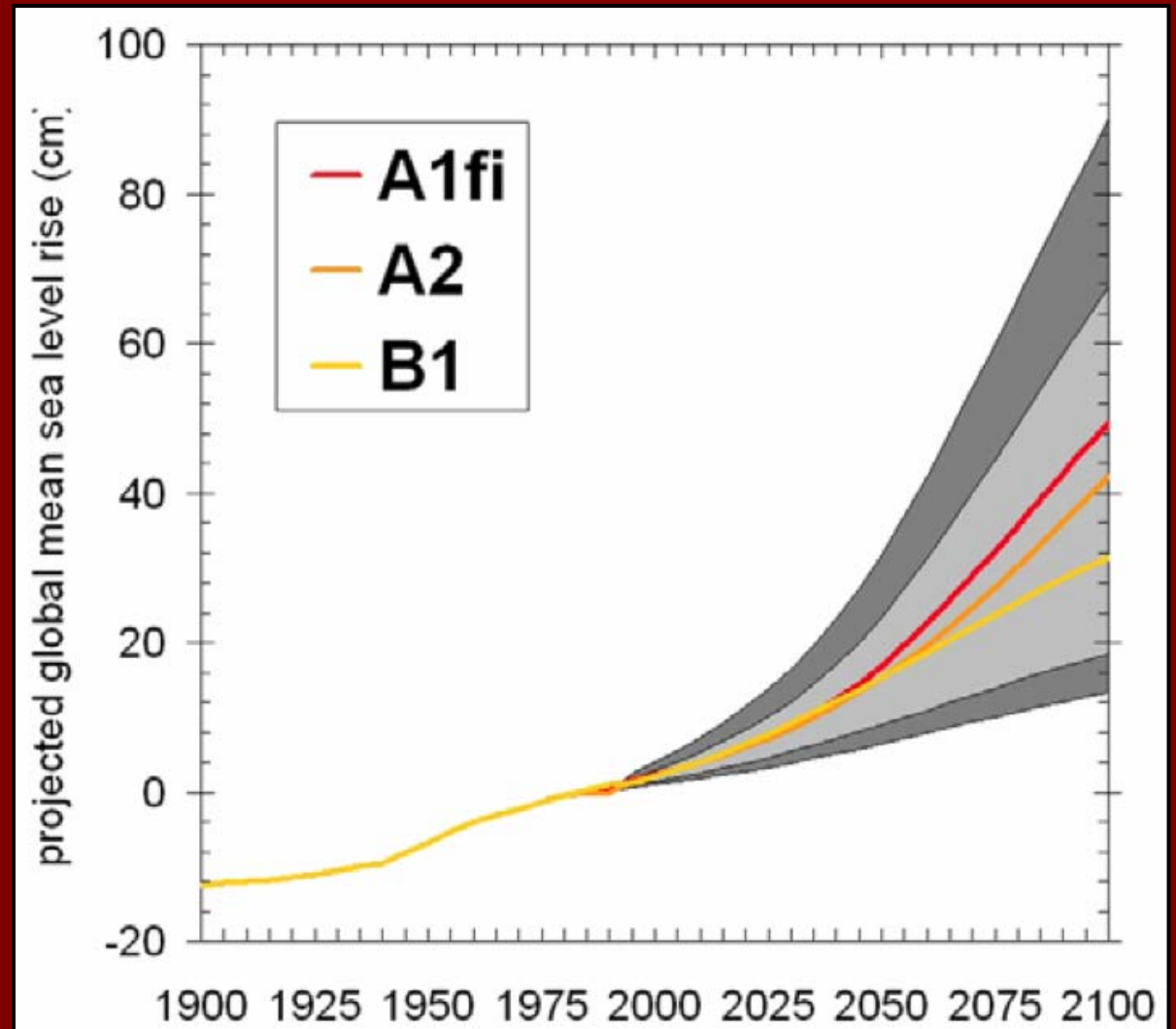
Source: California Climate Change Center 2006



## *Projected Sea Level Rise*

### Three Emissions Scenarios:

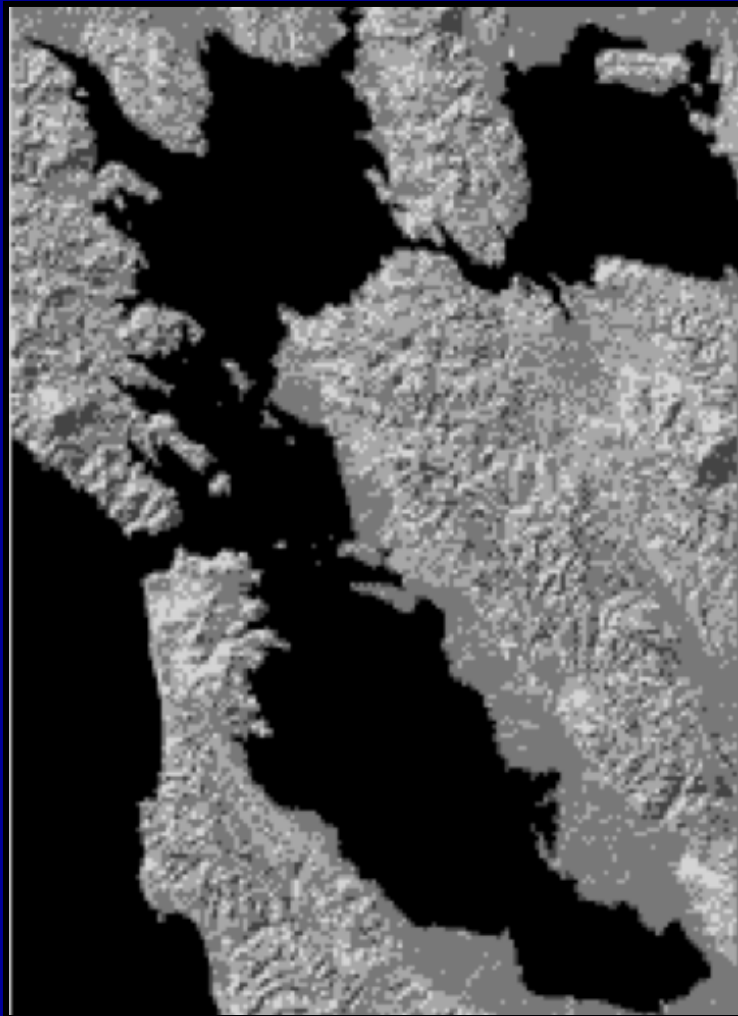
- A1fi - high
- A2 - medium-high
- B1 - low



Source: California Climate Change Center 2006



**1849**



**2100**



# *San Francisco International Airport*

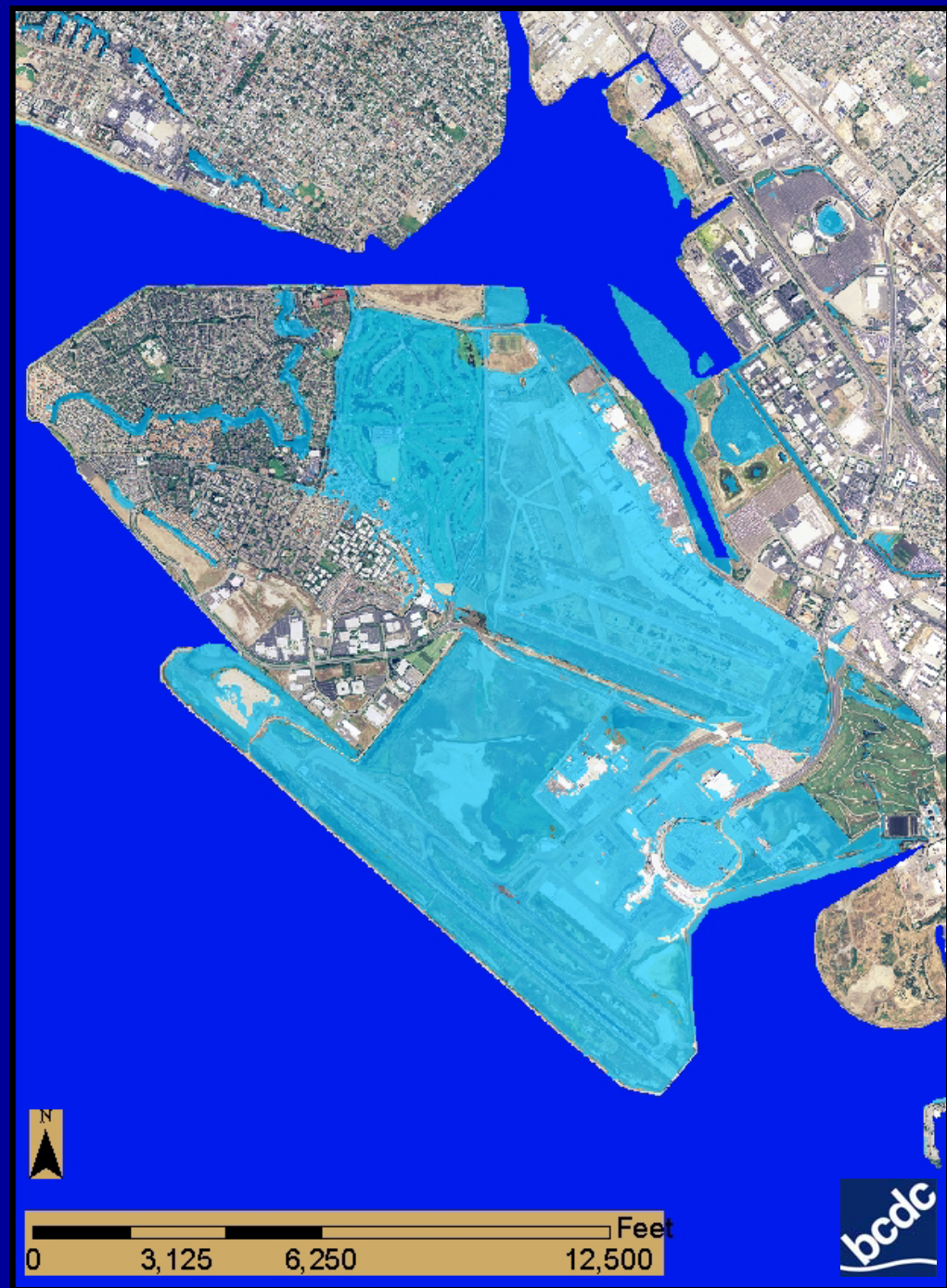
One Meter Sea Level Rise





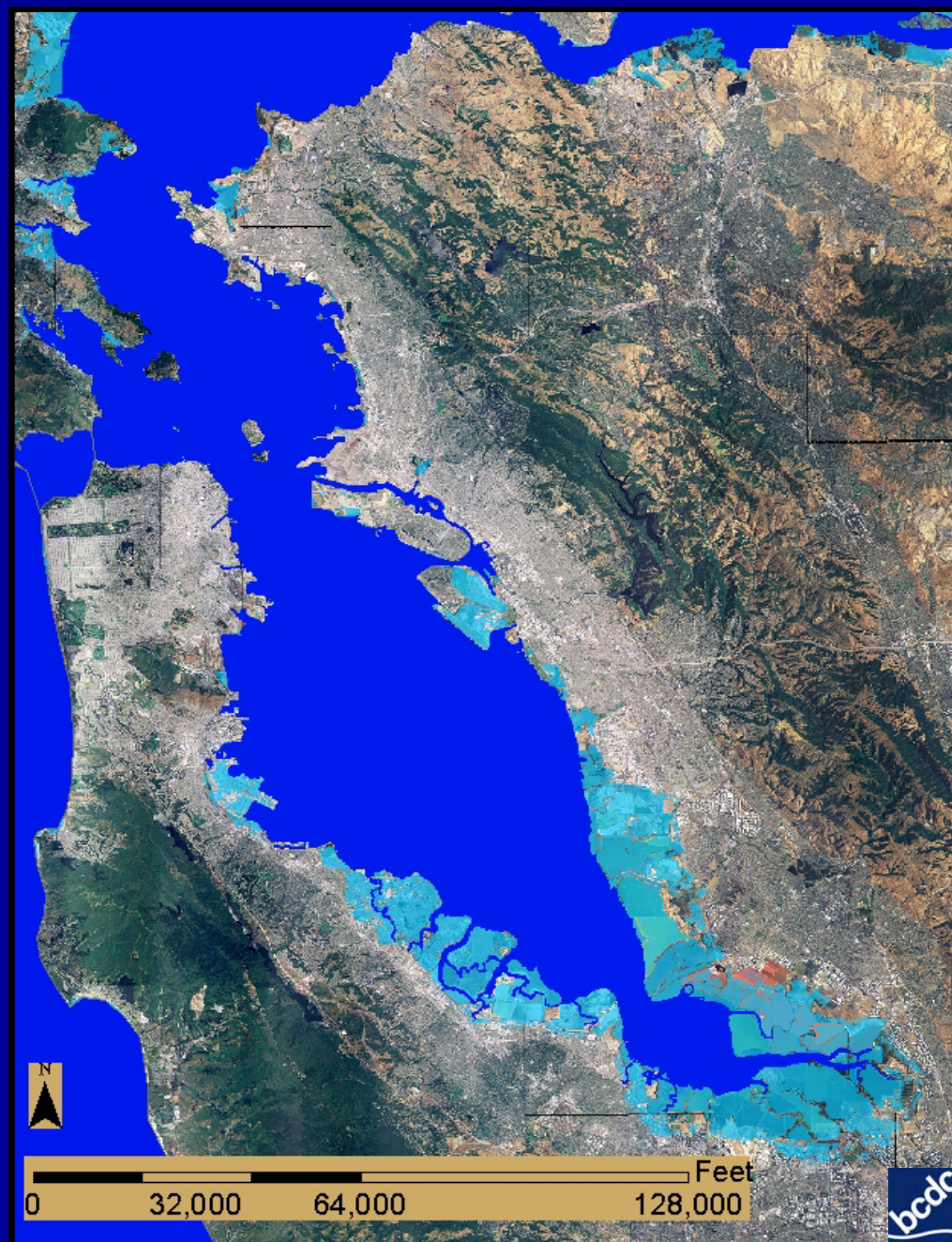
# Oakland International Airport

One Meter Sea Level Rise



# *Central and South San Francisco Bay*

One Meter Sea Level Rise





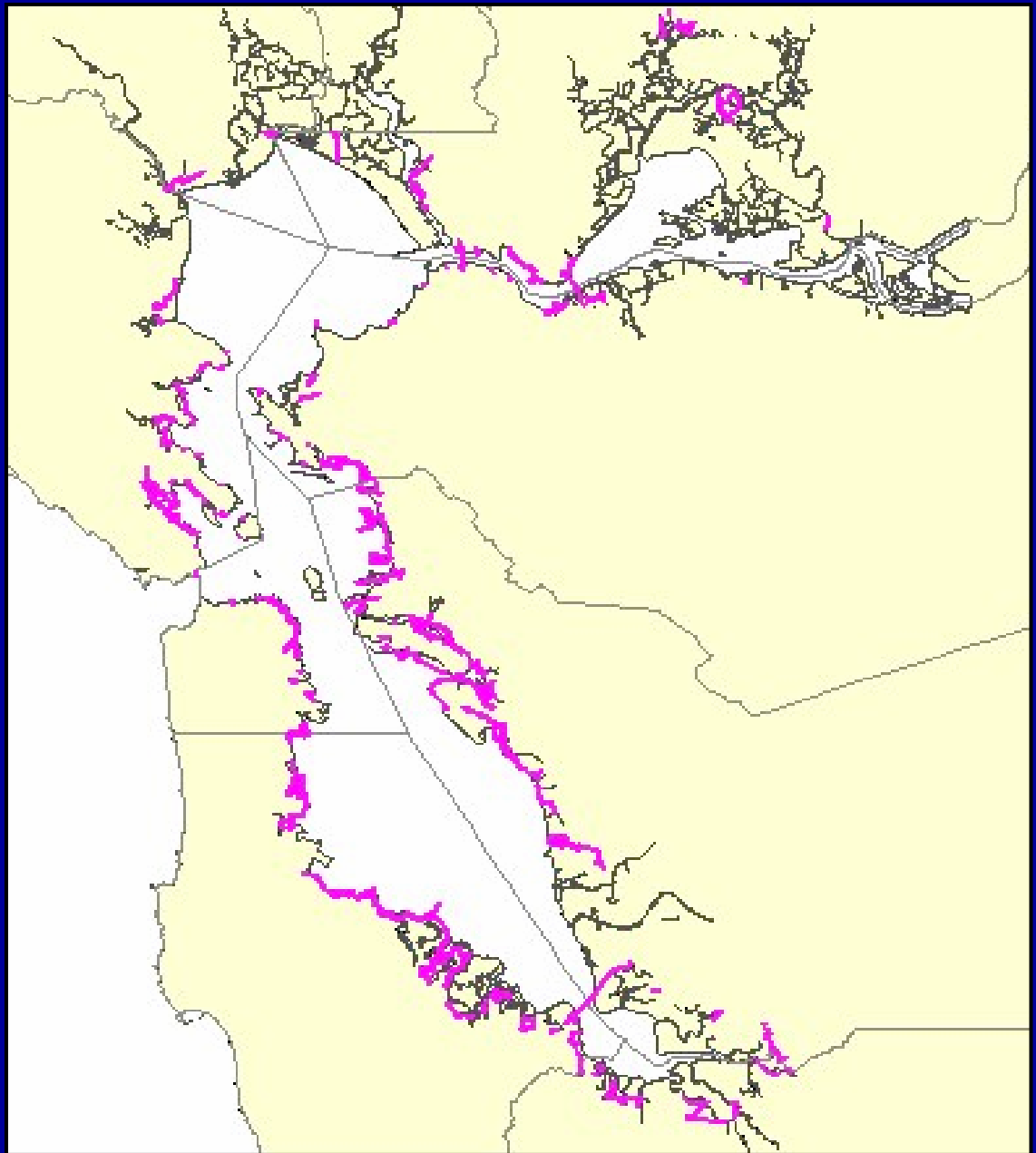
# SFPUC Wastewater Treatment System



Source: SFPUC, [sfwater.org](http://sfwater.org)

*40 Years of  
Providing  
Public Access*

Public Access  
Required by  
BCDC Permits







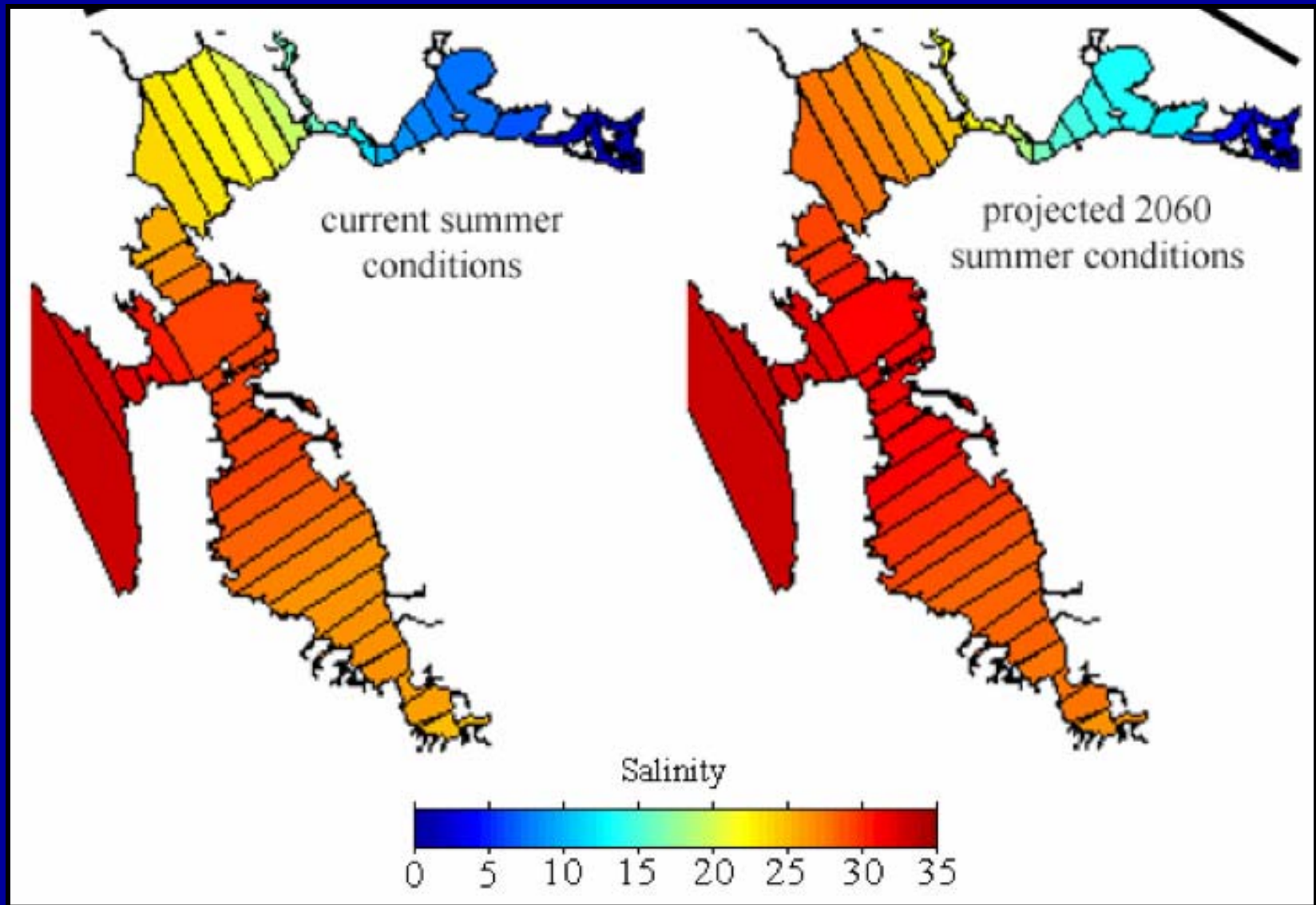






## *Increased Storm Activity*

A 30 cm (11.8 inches) increase in sea level rise would shift the 100-year storm surge-induced flood event to once every 10 years.



Cayan et. al. 2005











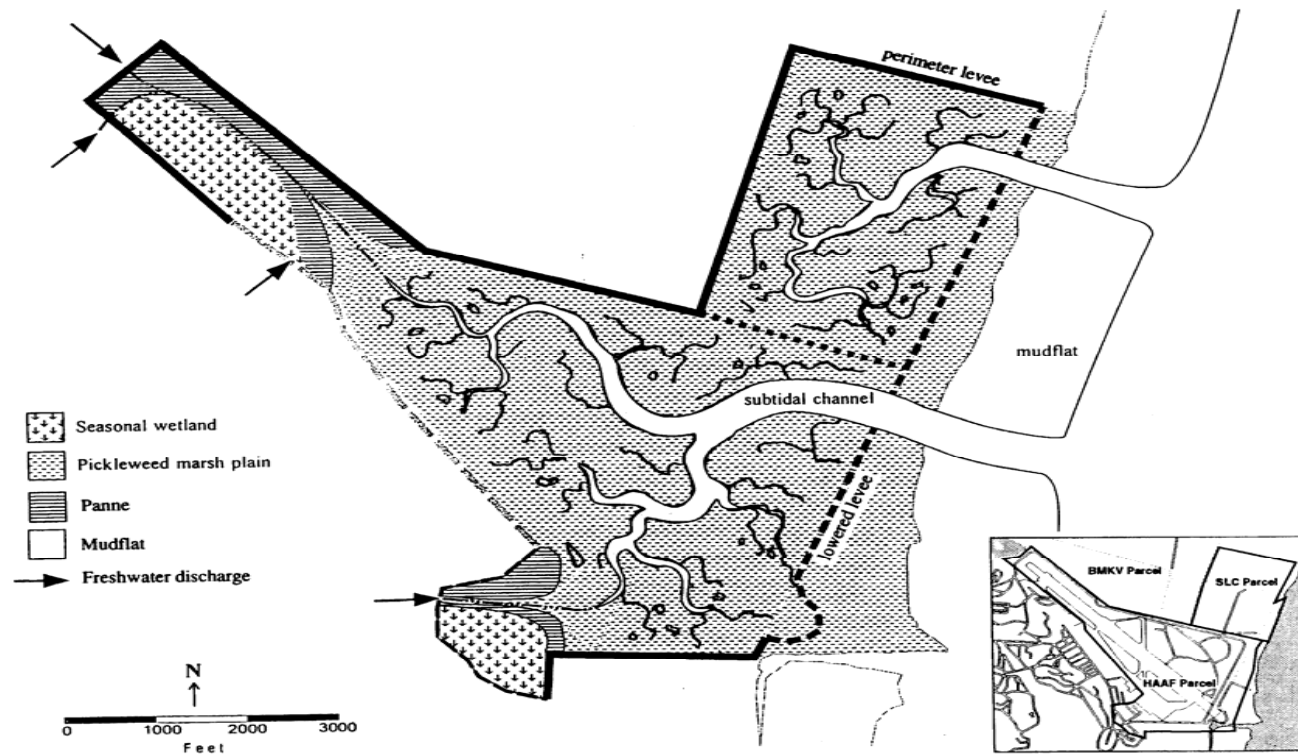








# Hamilton Site at 50 Years





# Response to Issues Identified

- Provide initial vulnerability assessments through mapping
- Collaborate regionally to clarify jurisdiction issues and coordinate a systematic response
- Work with local governments to identify adaptation strategies
- Develop new Bay Plan Policies




### One Meter Sea Level Rise San Francisco Airport



0 360 720 1,440 2,160 2,880 Meters

SF Bay  
 1 m sea level rise




Map is based on USGS 10m DEM and National Agriculture Imagery Program data. Map is illustrative and depicts a potential inundation scenario in 2100. Limitations in the geospatial data available may affect accuracy.

### One Meter Sea Level Rise Central and South Bay



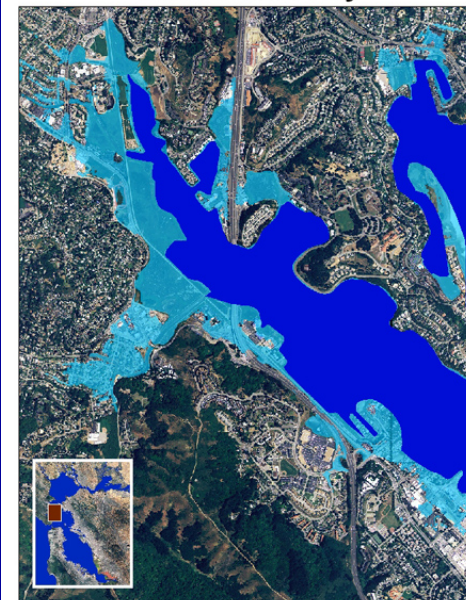
0 4,350 8,700 17,400 26,100 34,800 Meters

SF Bay  
 1 m sea level rise




Map is based on USGS 10m DEM and National Agriculture Imagery Program data. Map is illustrative and depicts a potential inundation scenario in 2100. Limitations in the geospatial data available may affect accuracy.

### One Meter Sea Level Rise Richardson Bay



0 200 400 800 1,200 1,600 Meters

SF Bay  
 1 m sea level rise



Map is based on USGS 10m DEM and National Agriculture Imagery Program data. Map is illustrative and depicts a potential inundation scenario in 2100. Limitations in the geospatial data available may affect accuracy.









