

# **BRIEFING ON THE DEVELOPMENT OF BAY PLAN CLIMATE CHANGE POLICY GUIDANCE**

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# OUTLINE

- Background on the policies
- Need for the guidance
- Work to date
- Content of the guidance
- Relation to OPC's Sea Level Rise Principles
- Next steps



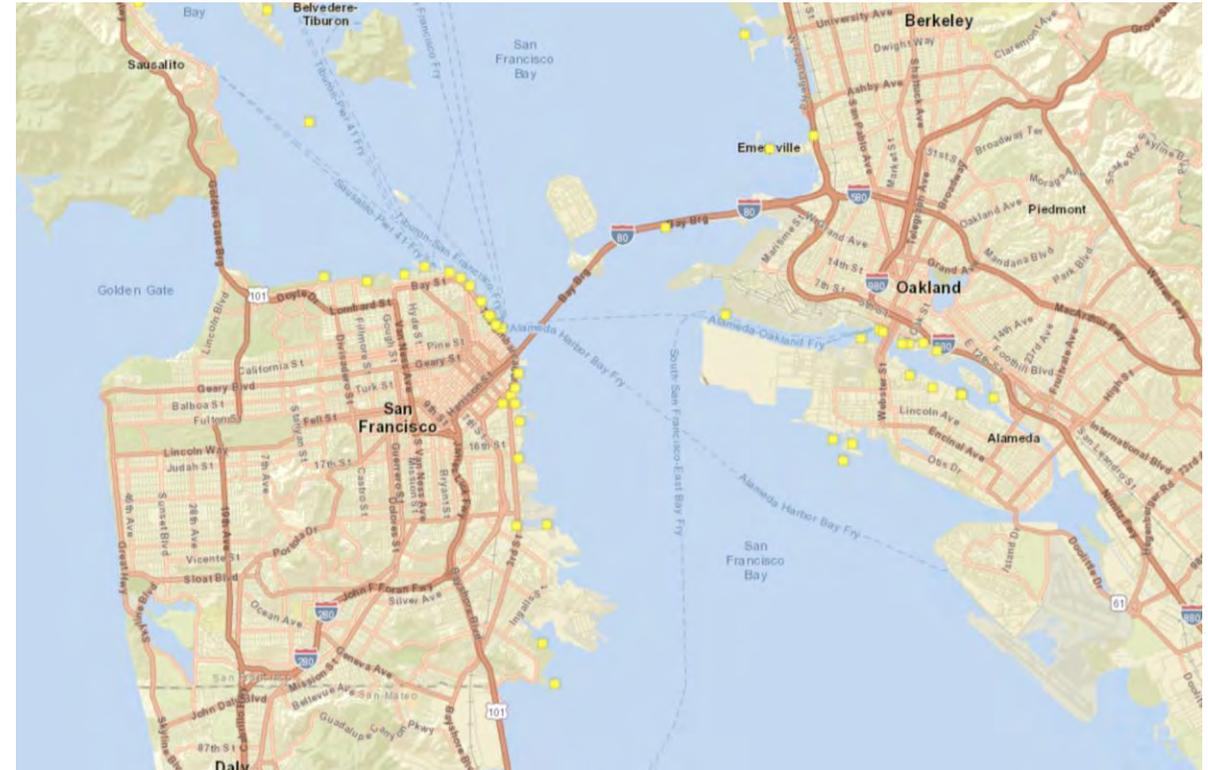
Source: Flickr user, Yuichi Sakuraba

# BACKGROUND ON THE BAY PLAN CLIMATE CHANGE POLICIES



# NEED FOR THE GUIDANCE

- Interpreting and applying the policies consistently has been somewhat challenging
- Implementation has been refined over time
- The best available science has been updated



A portion of the major permits since the Climate Change BPA

Source: BCDC

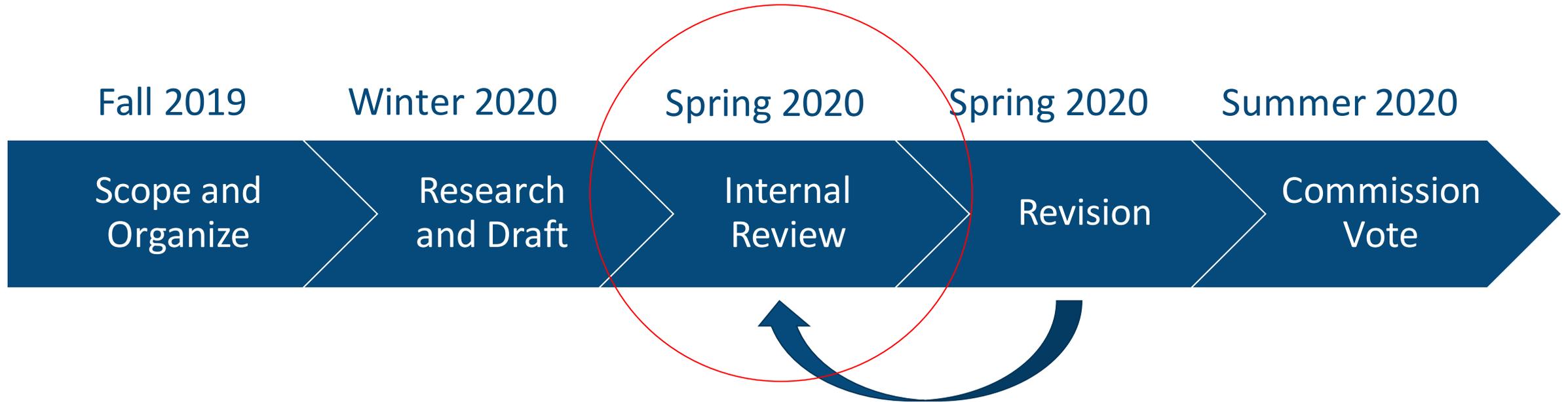
# USES OF THE GUIDANCE

- Help applicants more easily understand BCDC permit requirements
- Aid BCDC permit analysts in streamlining analyses
- Support local government planning departments



Source: Flickr user, Sergio Ruiz

# WORK TO DATE



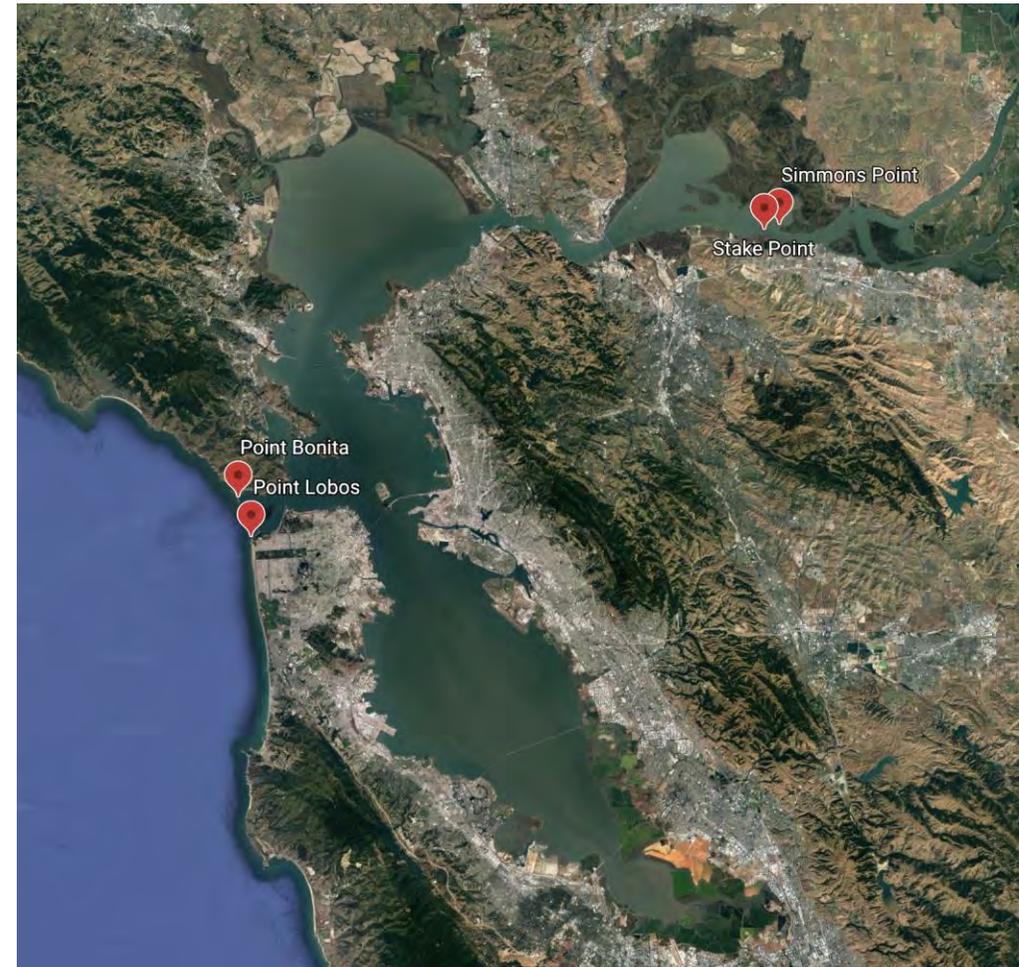
# CONTENT OF THE GUIDANCE

1. Introduction
2. Guidance on Climate Change Policies and Permitting
3. Accessible Science and Technical Summaries
4. Appendix



# 1. INTRODUCTION

- Audience and goals of the guidance
- BCDC's jurisdiction and authority
- Background on the Bay Plan Climate Change policies
- BCDC permitting



Extent of BCDC's jurisdiction

Source: Google Earth

# 2. GUIDANCE ON CLIMATE CHANGE POLICIES AND PERMITTING

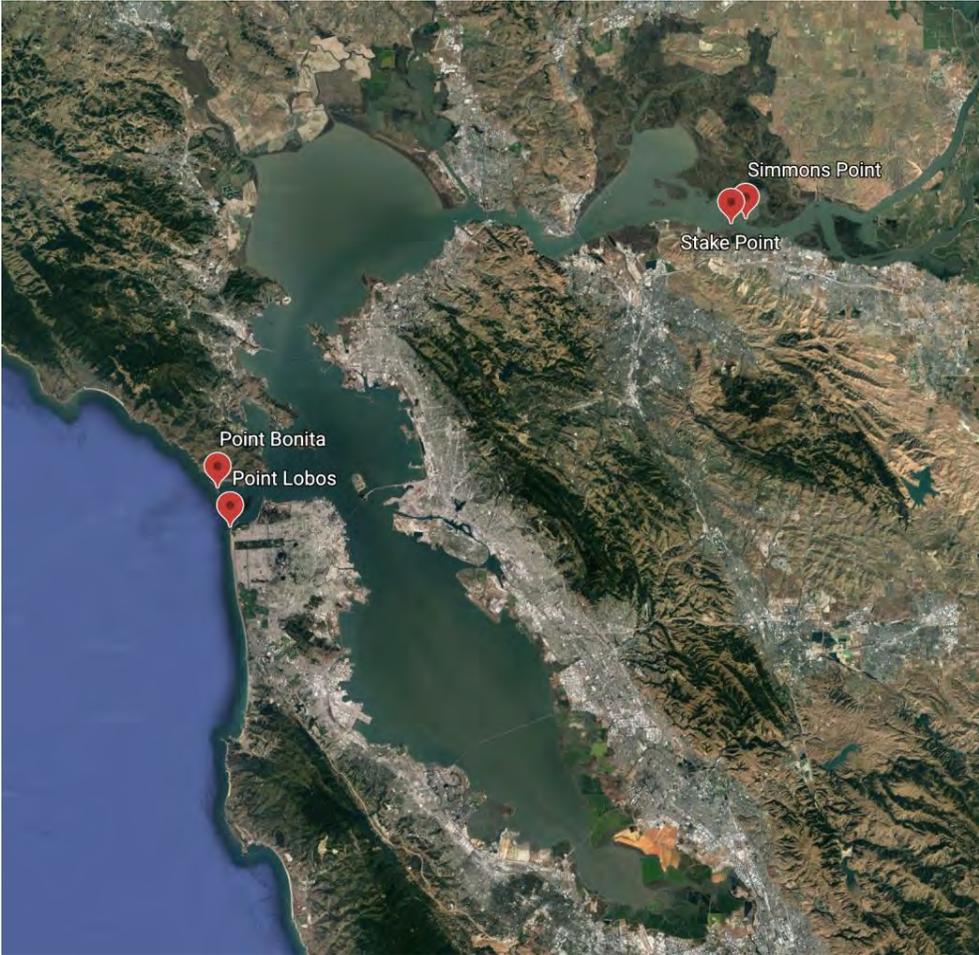
- Implementation of each of the Climate Change policies
- Related Bay Plan policies
- Related Bay Plan policies for habitat projects
- Relation to BCDC's ART Program

Project Name Mission Rock - China Basin park										
		Current Elevation in feet (NAVD88)			Projected Sea Level Rise (feet)			Projected Sea Level Rise (feet)		
		Water Level	Beach	Bay Trail	Level Rise (feet)	Emissions Level: <i>High Emissions</i>		Level Rise (feet)	Emissions Level: <i>High Emissions</i>	
					Risk Category: <i>Medium - High Risk</i>		Risk Category: <i>Medium - High Risk</i>			
					1.9	Beach	Bay Trail	4.5	Beach	Bay Trail
<b>Seasonal Water Level</b>										
White cell shows freeboard in (##) feet										
Blue means asset is flooded by amount shown (-##) feet										
Mean lower low water (MLLW)		-0.22	9.02	13.52	1.68	7.12	11.62	4.28	4.52	9.02
Mean low water (MLW)		0.87	7.93	12.43	2.77	6.03	10.53	5.37	3.43	7.93
Mean tide level (MTL)		3.30	5.50	10.00	5.20	3.60	8.10	7.80	1.00	5.50
Mean sea level (MSL)		3.24	5.56	10.06	5.14	3.66	8.16	7.74	1.06	5.56
Mean high water (MHW)		5.74	3.06	7.56	7.64	1.16	5.66	10.24	-1.44	3.06
Mean higher high water (MHHW)		6.32	2.48	6.98	8.22	0.58	5.08	10.82	-2.02	2.48
<b>Flood Event</b>										
FEMA 1 year stillwater elevation (100%) (AKA King Tide)		7.59	1.21	5.71	9.49	-0.69	3.81	12.09	-3.29	1.21
FEMA 2 year stillwater elevation (50%)		7.88	0.92	5.42	9.78	-0.98	3.52	12.38	-3.58	0.92
FEMA 5 year stillwater elevation (20%)		8.27	0.53	5.03	10.17	-1.37	3.13	12.77	-3.97	0.53
FEMA 10 year stillwater elevation (10%)		8.56	0.24	4.74	10.46	-1.66	2.84	13.06	-4.26	0.24
FEMA 25 year stillwater elevation (4%)		8.98	-0.18	4.32	10.88	-2.08	2.42	13.48	-4.68	-0.18
FEMA 50 year stillwater elevation (2%)		9.32	-0.52	3.98	11.22	-2.42	2.08	13.82	-5.02	-0.52
FEMA 100 year stillwater elevation (1%)		9.70	-0.90	3.60	11.60	-2.80	1.70	14.20	-5.40	-0.90
FEMA 500 year stillwater elevation (0.2%)		10.71	-1.91	2.59	12.61	-3.81	0.69	15.21	-6.41	-1.91
<b>FEMA Base Flood Elevation (1%)</b>		<b>9.70</b>	<b>-0.90</b>	<b>3.60</b>	<b>11.60</b>	<b>-2.80</b>	<b>1.70</b>	<b>14.20</b>	<b>-5.40</b>	<b>-0.90</b>

BCDC's flood elevation table

# THE BAY PLAN CLIMATE CHANGE POLICIES

## 1. Jurisdiction



Extent of BCDC's jurisdiction

Source: Google Earth

# THE BAY PLAN CLIMATE CHANGE POLICIES

1. Jurisdiction
2. Risk assessments



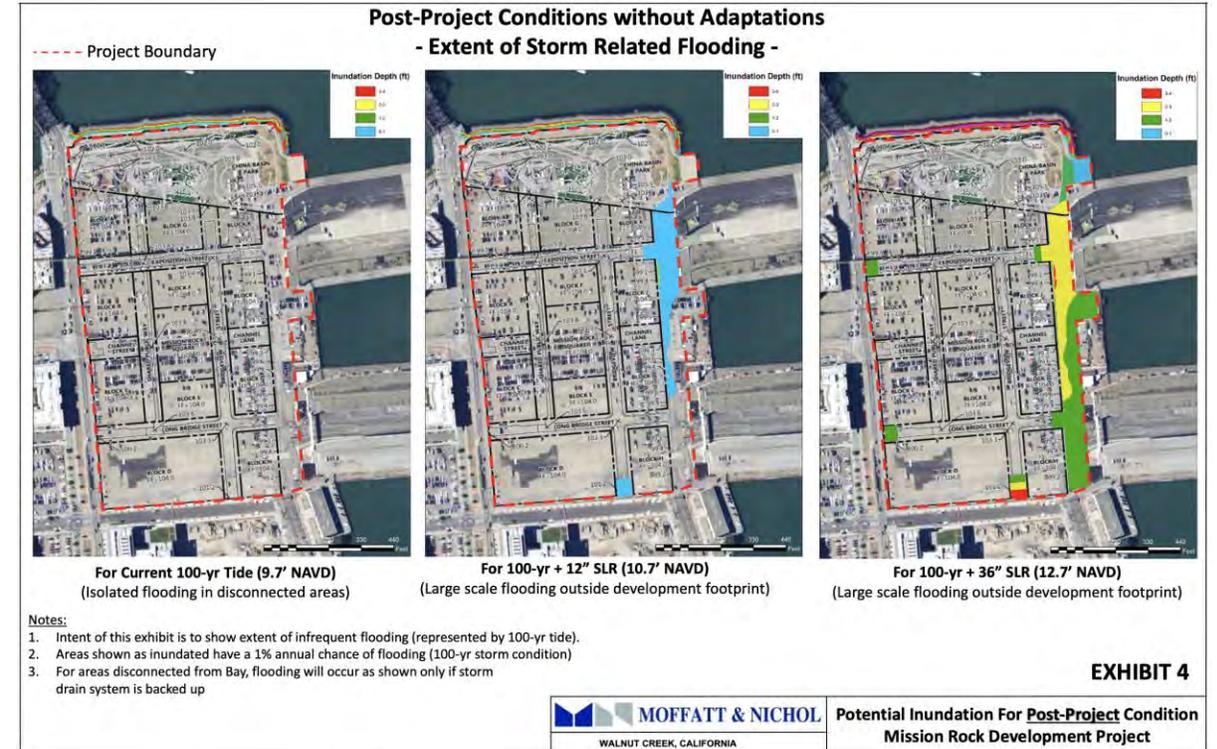
ART Bay Shoreline Flood Explorer



# "LARGER SHORELINE PROJECT" – MISSION ROCK



Rendering of the completed project

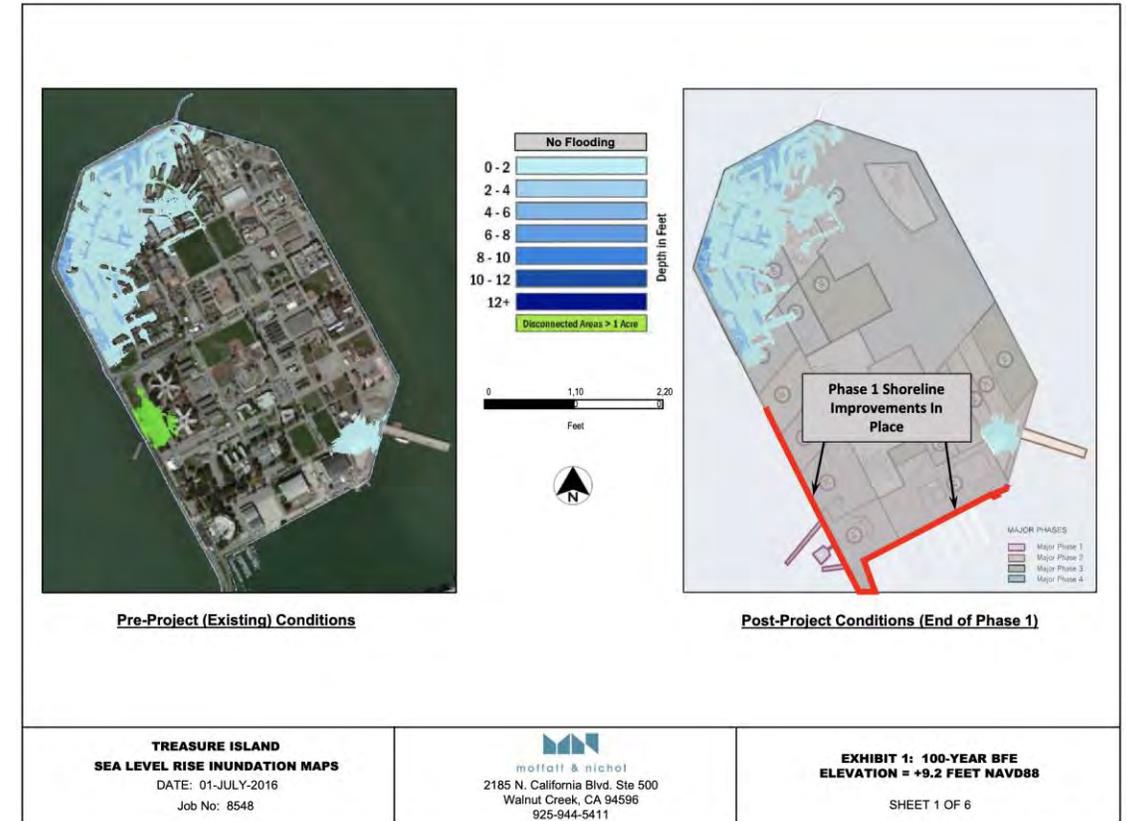


Portion of the project's risk assessment

# "LARGER SHORELINE PROJECT" – TREASURE ISLAND

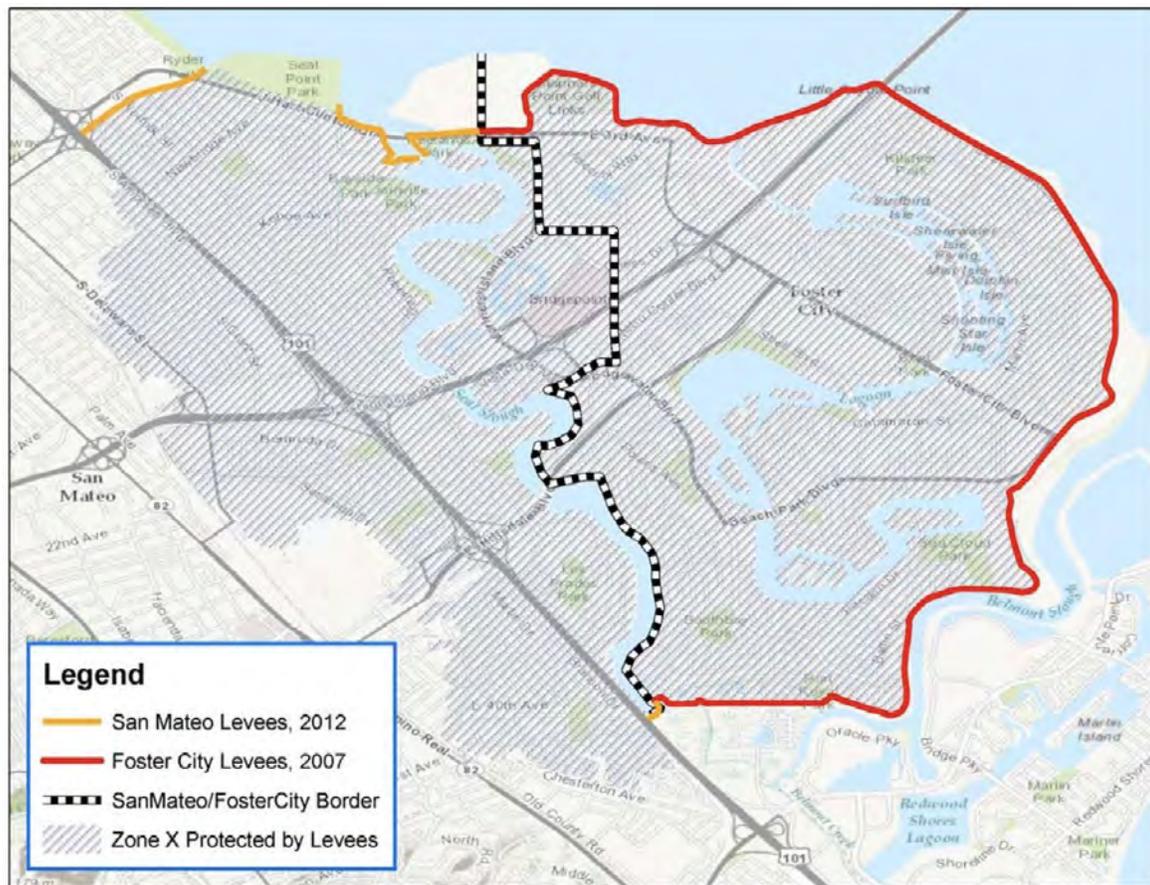


Development plan for Treasure Island



Portion of the project's risk assessment

# "LARGER SHORELINE PROJECT" – FOSTER CITY LEVELS



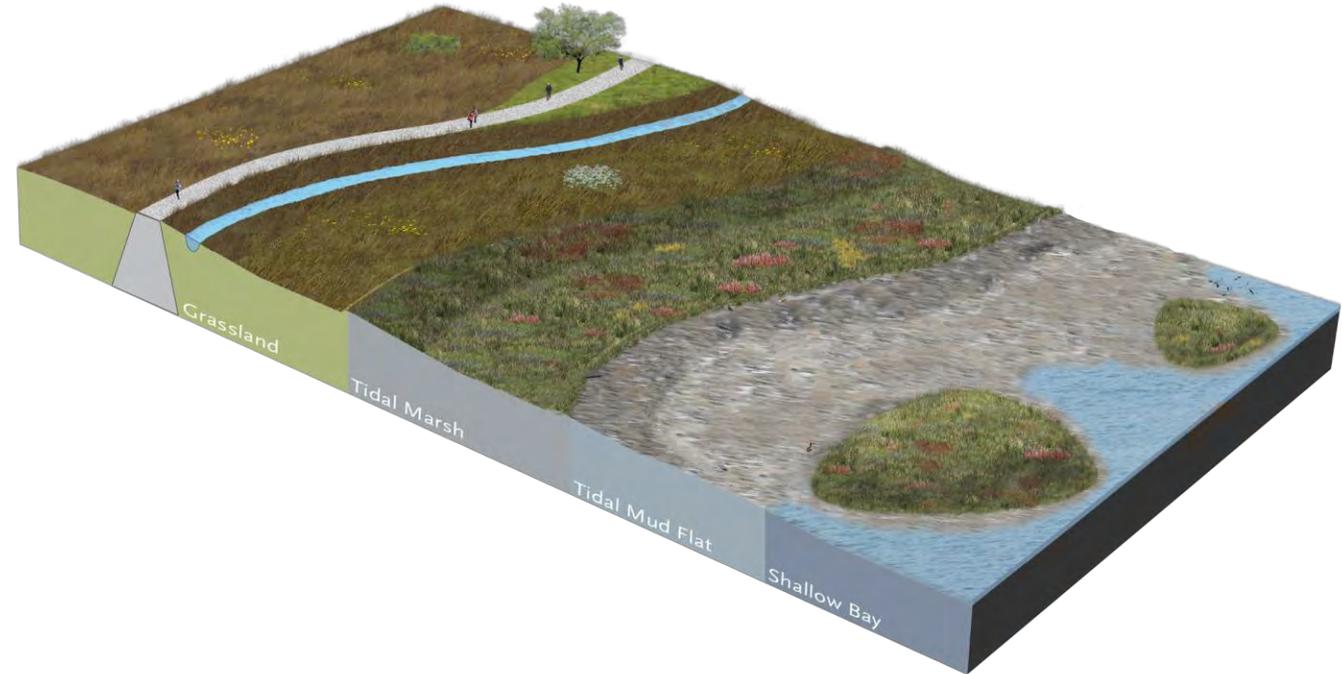
Project area



Portion of the project's risk assessment

# THE BAY PLAN CLIMATE CHANGE POLICIES

1. Jurisdiction
2. Risk assessments
3. Resilience, adaptive management plans
4. Undeveloped areas
5. Innovative adaptation approaches
6. Regional sea level rise adaptation strategy
7. Case-by-case evaluation
8. Coordination

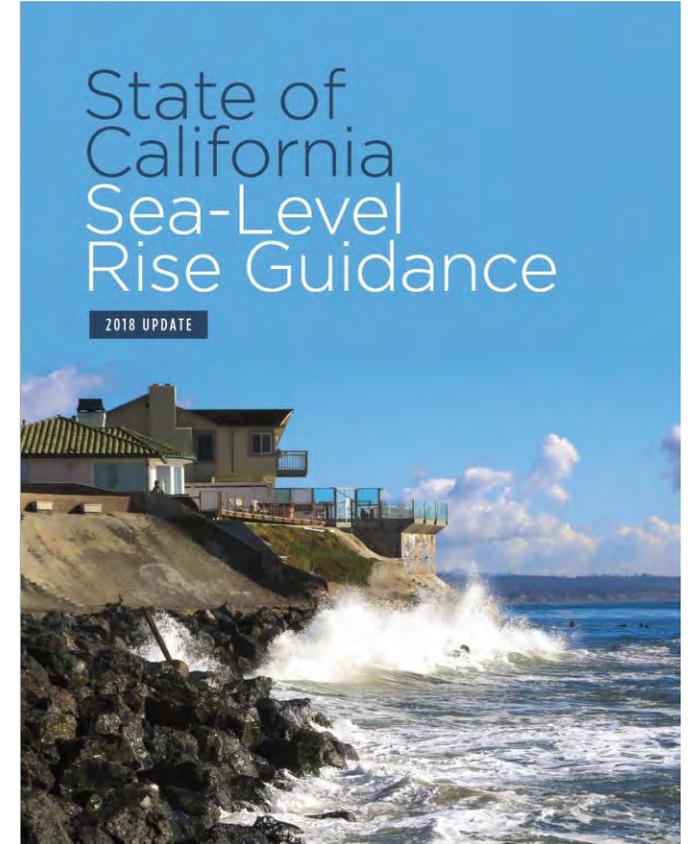


Concept of a horizontal levee

Source: The Bay Institute

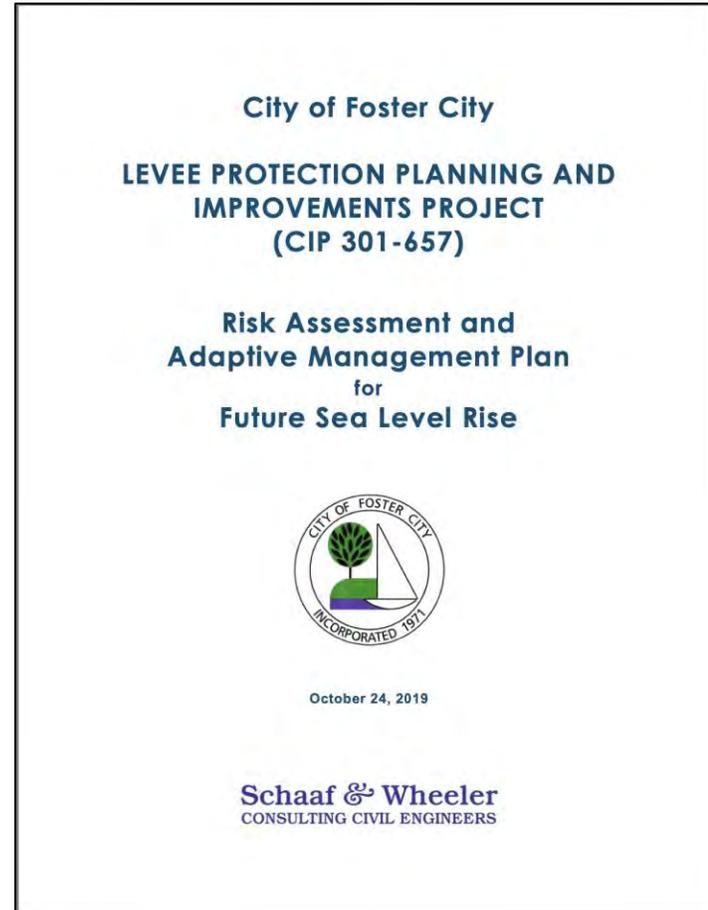
# 3. ACCESSIBLE SCIENCE AND TECHNICAL SUMMARIES

- Background of the *State of California Sea-Level Rise Guidance*
- Overview of climate change and sea level rise science
- Key components of the policies:
  - “best estimates of future sea level rise”
  - “all types of potential flooding”
  - "100-year flood elevation"
- Impacts of sea level rise, flooding, and related hazards



## 4. APPENDIX

- Frequently asked questions
- Example permit conditions
- Example risk assessment and adaptive management plan



An example risk assessment and adaptive management plan

# SEA LEVEL RISE PRINCIPLES FOR ALIGNED STATE ACTION



**OCEAN  
PROTECTION  
COUNCIL**

- 1. Develop and Utilize Best Available Science**
2. Build Coastal Resilience Partnerships
- 3. Improve Coastal Resilience Communications**
4. Support Local Leadership and Address Local Conditions
- 5. Strengthen Alignment around Coastal Resilience**
6. Implement and Learn from Coastal Resilience Projects

## NEXT STEPS

- Complete internal review
- Public comment period
- Commission consideration and vote to adopt
- Outreach to share the guidance



# THANK YOU



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[www.bccdc.ca.gov/proposed\\_bay\\_plan/bp\\_amend\\_1-08.html](http://www.bccdc.ca.gov/proposed_bay_plan/bp_amend_1-08.html)