Modified from:

A Rising Bay, Wet Shorelines, and Increasing Expectations: BCDC's Planning & Regulatory Responses to Rising Sea Level

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Bay Area County Transportation Agency Directors
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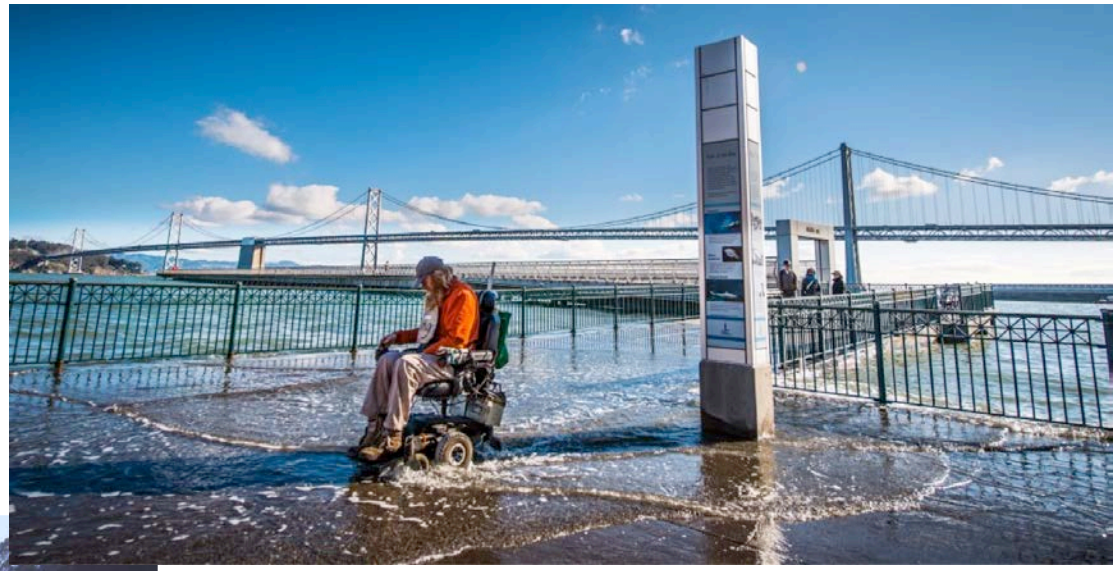
San Francisco Bay Today

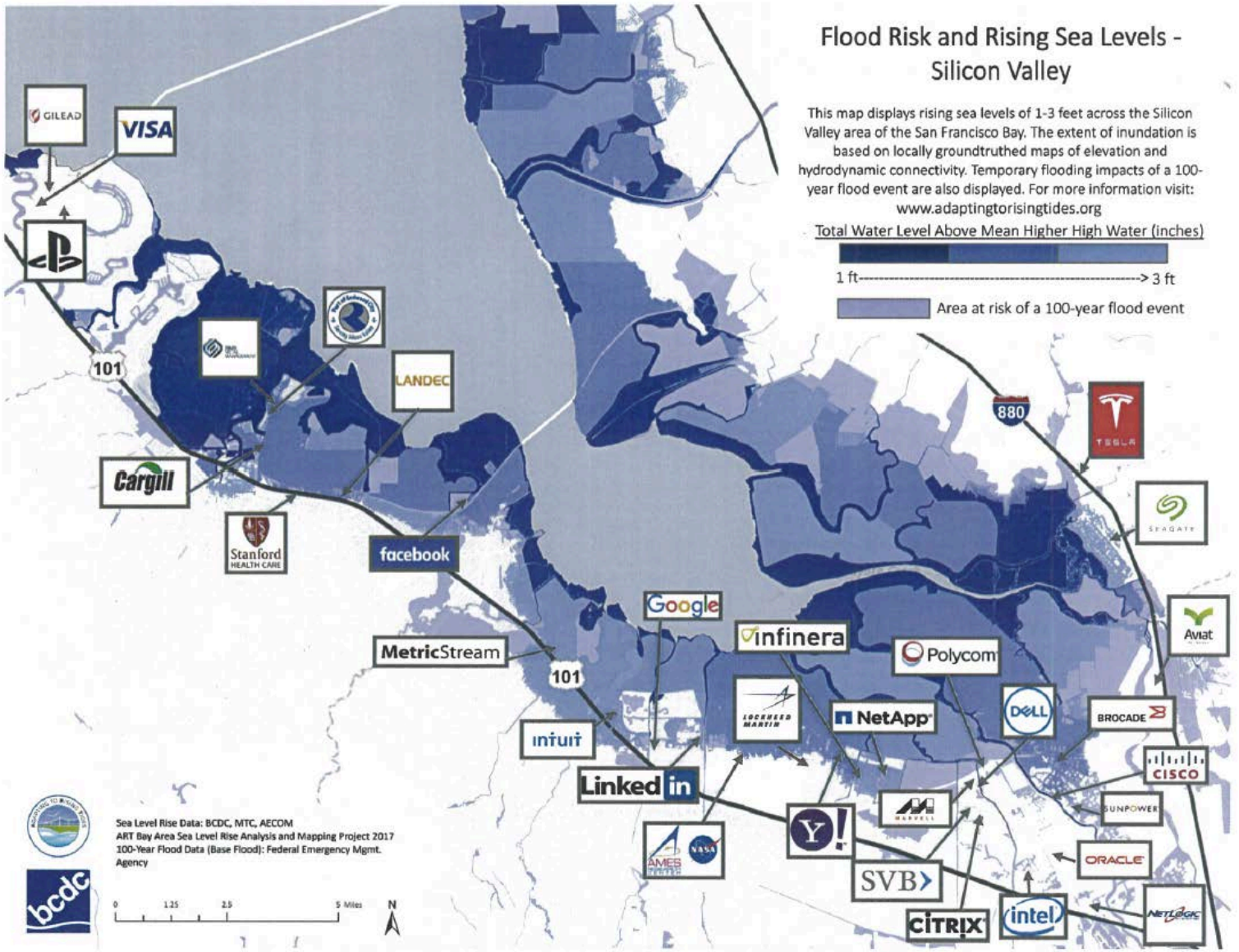
Home to Sustainable Natural Resources

Home to Critical Infrastructure

Home to Sunny Day Flooding



And Home to Silicon Valley



The Importance of San Francisco Bay

- *Largest West Coast estuary*
- *Pacific Flyway*
- *Habitat for more than 500 species*
- *Incomparable recreational and scenic resource*

- *Bay Area GDP 18th largest*
- *Tourism!*
- *Bay Area attracts workers to Silicon Valley*
- *Port of Oakland 5th busiest*
- *>40% of CA refinery capacity within BCDC jurisdiction*

The Challenge

- *9 Counties*
- *66 Cities*
- *Scores of special districts*
- *Over 150 public agencies with some kind of authority*
- *How to escape the "Tragedy of the Commons?"*

BCDC Created and Made Permanent

1965: BCDC created on temporary basis to develop first "San Francisco Bay Plan"

1969: McAteer-Petris Act amended to make BCDC permanent and to approve San Francisco Bay Plan (signed by Governor Ronald Reagan)

BCDC – Regional Authority and Jurisdiction

- *27 Commissioners*
- *A State Agency with Regional Regulatory and Planning and Permitting Authority*
  - Work <u>with</u> local governments (primary land use planning authorities) based upon BCDC state laws and policies
  - … *Conservation **<u>and</u>** Development*
- *BCDC Regional Jurisdiction:*
  - All projects or major activities inside the Bay waters or within 100’ feet of Bay shoreline require a permit from BCDC – in addition to permit(s) from local and other authorities – whether putting in or taking out

BCDC's Two Guiding Principles

1) Minimize Bay Fill

2) Maximize Feasible Public Access

Uncertainty and Predictability

- *Science supporting Rising Sea Level is <u>certain</u>*

- *Temporal estimates of Rising Sea Level are <u>uncertain</u>*
  - CA Natural Resources Agency
    - *2' by 2050; 4' by 2100* (could be less, more likely to be more)
      - How much, how fast?

Uncertainty and Predictability

- *How to reduce Rising Sea Level uncertainty?*
  - Scientific uncertainty: how much water, how quickly, and where will it go?
  - Ecological uncertainty: how will marshes react?
  - Financial uncertainty: who will invest during uncertain times, and how?
  - Legal uncertainty: who owns what when the water rises?
  - Regulatory uncertainty: how to create consistency?
  - Planning uncertainty: how not to scare the public?

Re-Envisioning BCDC's Role and the Bay

- *Originally: BCDC as "Bay Expander"*
- *Now: "Fill the Bay to save the Bay?"*
  - Create new vision of Bay protection that promotes appropriate development and the smartest ways to adapt to changing circumstances – **both green and gray**

BCDC Strategic Plan Update – 2017

- *Goal 1: Enhance the Bay's unique contributions to the Bay Area, and enable all its communities to flourish.*

- *Goal 2: Increase the Bay's natural and built communities' resilience to rising sea level.*

- *Goal 3: Improve organizational health and performance.*

Recently Approved Plans

- *Shoreline Project- ring levee around San Jose WWTP and Alviso with ecotone to encourage marsh development. 1st of projects around entire South Bay. Santa Clara Valley Water District, US Fish & Wildlife and Army Corps of Engineers.*

- *South Bay Salt Pond Restoration Program Phase 2- strengthens levees & restores marshes along MV shore and opens ponds adjacent to San Jose for better marsh development.*

- *Platform Parks- Caltans will use old piers from the Bay Bridge as base for public access platforms over the water.*

Multi-Agency Permitting for Multi-Benefit Habitat Restoration Projects (BRRIT) – 1/1/19

- *Regulatory agencies:*
  - Federal: USACE, EPA, NMFS, USFWS
  - State: BCDC, CDFW, RWQCB, State Lands Commission
- *Dedicated funding (multiple funders) and co-location (USACE host)*
- *Pre-application/application coordination and collaboration*
- *Performance measures to be judged by funders*

Commissioner Successes – Working Groups

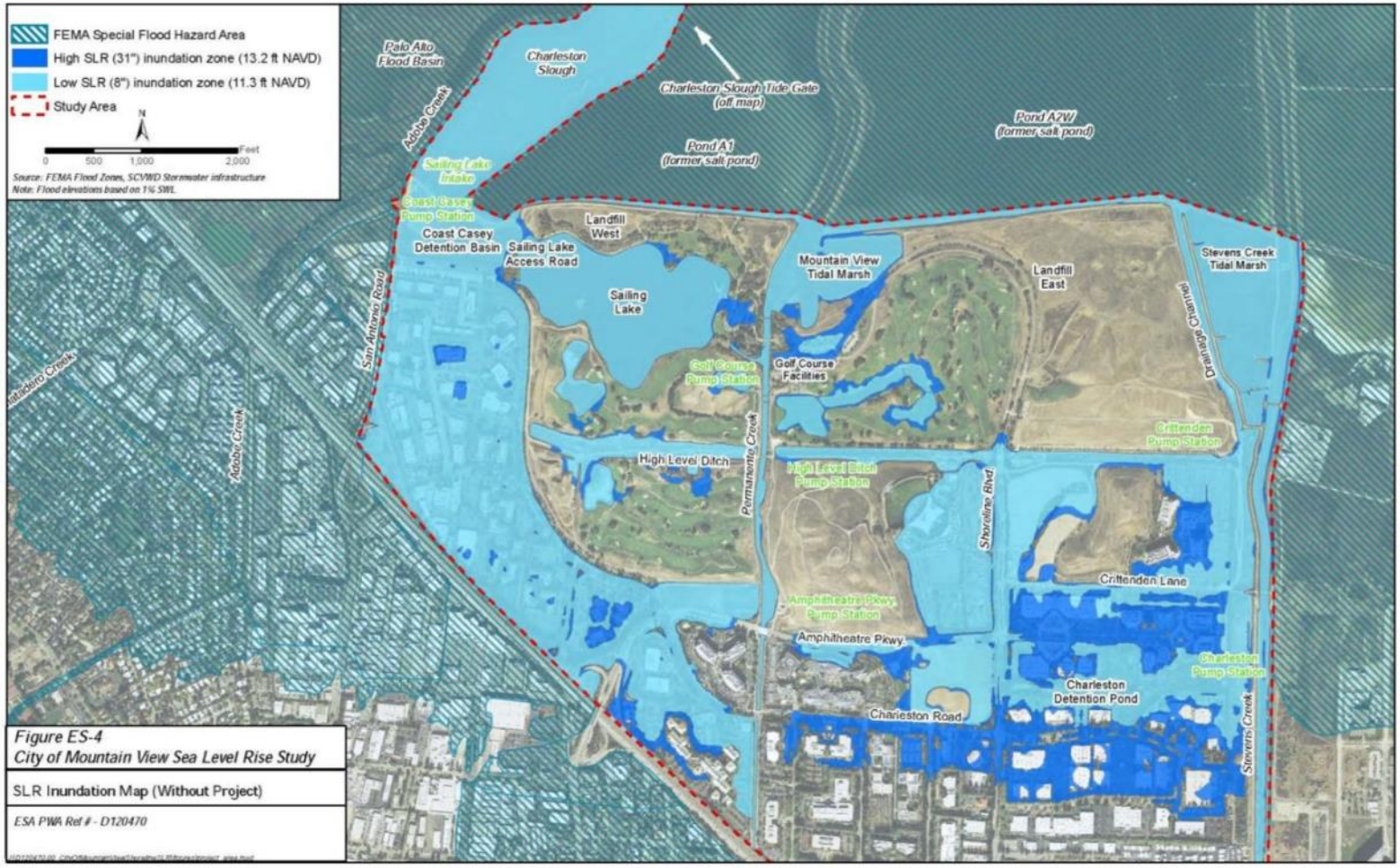
- *Commissioner Working Groups – policy development process*
  - Fill for Habitat Bay Plan Amendment
  - Environmental Justice/Social Equity Bay Plan Amendment
  - Financing the Future (RbD Workshop)
  - Public Education

Governance for Adapting to Rising Sea Level

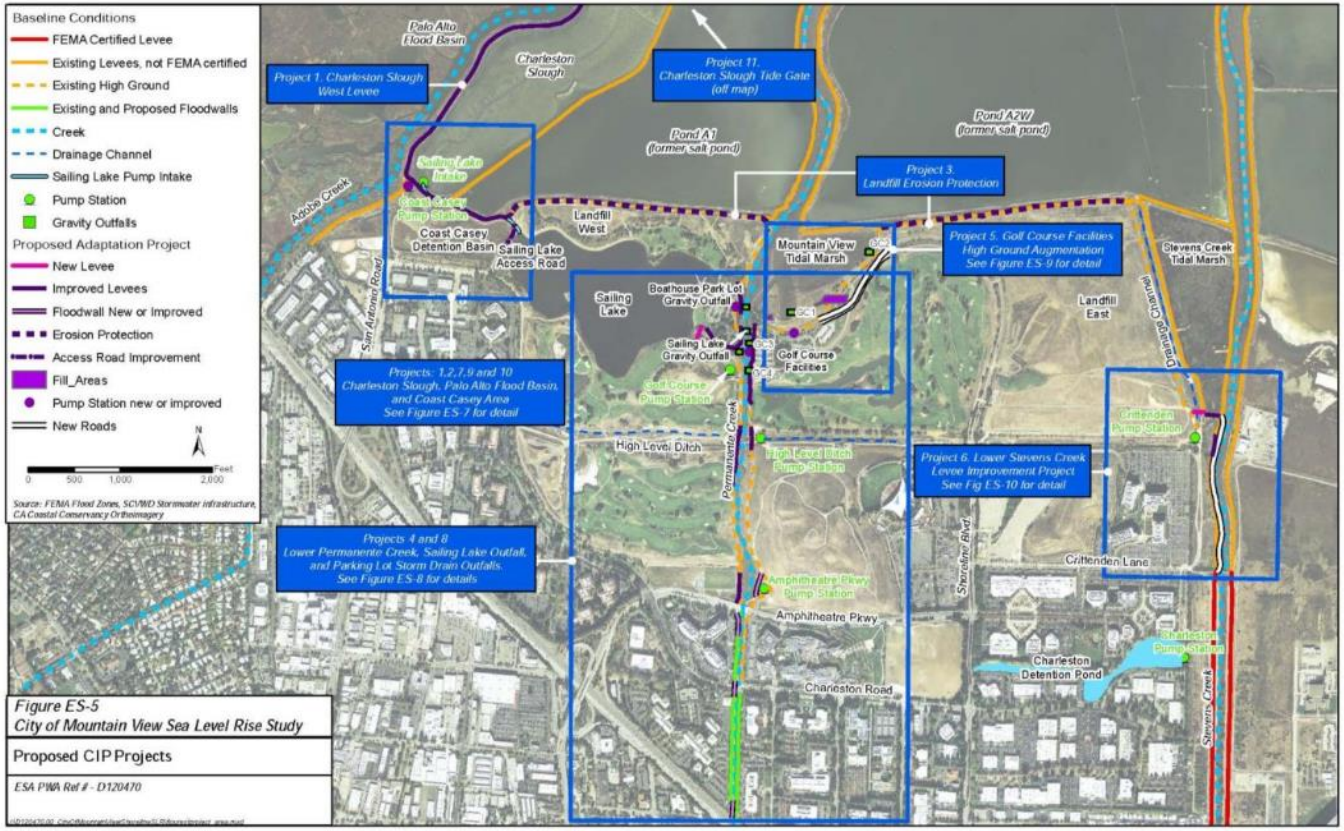
- ***CHARG**- Climate Hazards Adaptation Regional Group- this functions as a Technical Advisory Committee. Needs our political support for funding.*
- ***BCDC**- policy and regulatory lead. Only agency with jurisdiction around the entire Bay Shoreline.*
- ***BRRIT**- Bay Restoration Regulatory Integration Team- by working side-by-side and on the same schedule should be accelerate permiting.*
- ***Deadline 2030-** Models have shown that if wetlands are established by 2030 they* MAY *be able to keep up with rising sea level.*

Mountain View's North Bayshore Area Watershed Management Objectives

Future coastal flood risk



Shoreline Sea Level Rise Study
Capital Improvement Program



1. Charleston Slough and Palo Alto Flood Basin Levee Improvement
2. Coast Casey North Levee Improvement
3. Landfill Erosion Protection
4. Lower Permanente Creek Levee and Floodwall Improvements
5. Golf Course Facilities High Ground Augmentation
6. Lower Stevens Creek Levee Improvements
7. Coast Casey Pump Station Improvements
8. Lower Permanente Creek Storm Drain Improvements
9. Sailing Lake Access Road Improvements
10. Sailing Lake Intake Pump Station Modification
11. Charleston Slough Tide Gates Improvement
12. Sea Level Rise Assessment

Questions and Comments Always Welcome!

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Shoreline Study – Sea Level Rise Projections

Table 3. Comparison of SLR scenarios for NRC 2012 and the South San Francisco Bay Shoreline Study, Years 2017 to 2067

Source	SLR Relative to 2000			SLR Relative to 2017 (cm)
	2000	2017	2067	2067
NRC 2012 low-range, no subsidence	0	0.8 in (2.0 cm)	8.3 inches (20 cm)	7.5 inches (19 cm)
NRC 2012 mid-range, no subsidence	0	2 in (5.6 cm)	16 inches (39.7 cm)	13 inches (34 cm)
NRC 2012 high, no subsidence	0	5 inches (12.1 cm)	31 inches (78 cm)	26 inches (66 cm)
Shoreline Study (assumes no subsidence)	0	4 inches (9.2 cm)	29 inches (74.2 cm)	26 inches (65 cm)