SAN FRANCISCO SEA LEVEL RISE ACTION PLAN

SFMTA May 3rd, 2016



MAYOR EDWIN M. LEE SLR COORDINATING COMMITTEE

Co-Chair: Fuad Sweiss, San Francisco Public Works Department Co-Chair: Gil Kelley, San Francisco Planning Department

City Administrator's Office
San Francisco International Airport
San Francisco Public Utilities Commission
San Francisco Municipal Transportation Agency
Office of Economic and Workforce Development
Port of San Francisco
Office of Community Investment and Infrastructure
Department of Building Inspection
Capital Planning

SAN FRANCISCO SLR PROJECTIONS

Year	Most Likely Projection (CEQA/Project Approvals*)	Upper Range (Long-range Planning*)
2030	6 in	12 in
2050	11 in	24 in
2100	36 in	66 in

Reference: Sea level rise for the Coasts of California, Oregon, and Washington: Past, Present, and Future (NRC 2012)

*Note: the City uses the National Research Council's (NRC) most likely SLR projection of 36" for ongoing planning and development purposes related to environmental review and project approvals. This Action Plan considers adaptive strategies to address the NRC's upper end estimate of 66" of SLR by 2100 in the event that future GHG emissions and land ice melting accelerates beyond current predictions.

*With Storm Surge + King Tides: add ~ 40" (108" in 2100)



Fisherman's Crissy Field Presidio MISSION ROCK + MISSION BAY San Francisco SAN FRANCISCO Bay **SEA LEVEL RISE** CRANE COVE PARK **VULNERABILITY ZONE** PIER 70 SUD THROUGH END-OF-CENTURY WITHOUT ANY ADAPTATION **MEASURES OR ACTIONS** Islais MAJOR WATERFRONT PROJECTS INCORPORATING INNOVATIVE INDIA BASIN ADAPTIVE MANAGEMENT Pacific Ocean HUNTER'S POINT SHIPYARD ANDLESTICK **OCEAN BEACH** MASTER PLAN POINT IMPLEMENTATION Legend Sea Level Rise Vulnerability Zone

SLR Vulnerability Zone

(Note: blue line marks end of century, upper range projection with no action)

COST OF INACTION

	Private Property	Public Property	Total Exposure
66" (Year 2100)	\$19 Billion	\$35 Billion	\$54 Billion
108" (Year 2100 w/storm surge)	\$38 Billion	\$37 Billion	\$75 Billion

(Note: numbers reflect end of century, upper range projection with no action in today's dollars)

PAST AND ONGOING OUTREACH AND **ENGAGEMENT EFFORTS**

(Note: dotted line marks end of century, upper range projection with no action)



VULNERABILITY AND RISK ASSESSMENTS

COMPLETED

- Property/Assets
 - Port
 - SFO
 - SFPUC
- Vulnerable Communities

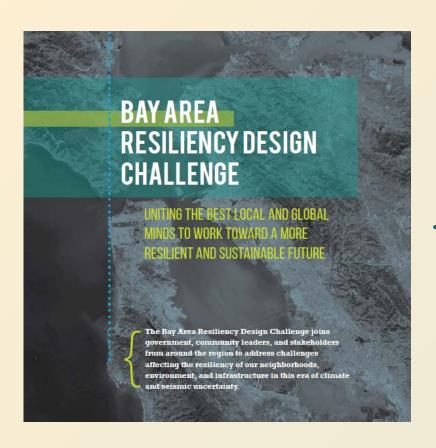
STILL NEEDED

- SFMTA TransportationSystem
- Other Buildings and Properties
- Energy, Waste Systems
- Parks/Open Space
- Communications

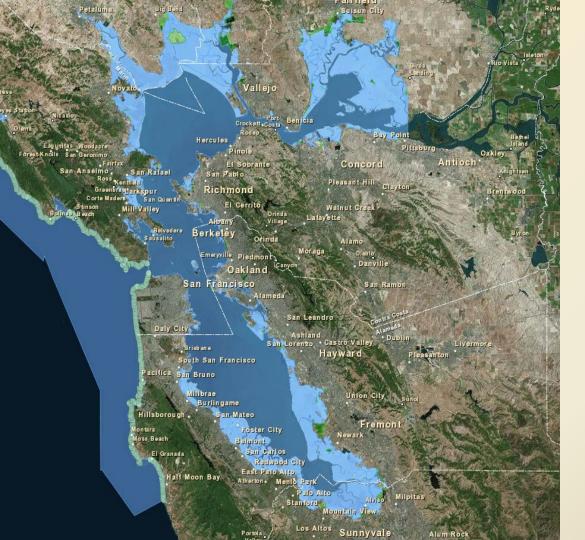
SEA LEVEL RISE PRIORITY ACTIONS [2016-2018]

01 02 Climate science & SLR Citywide research priorities vulnerability VULNERABILITY assessment Citywide risk 06 03 assessment -Storm event monitoring Comprehensive **MONITOR ASSESS IMPLEMENTATION** economic risk analysis 04 05 **Governance structures Backflow prevention** Community SLR DEVELOP **IMPLEMENT** Airport shoreline protection **ADAPTATION** ADAPTATION outreach strategy **PLAN** Capacity building **Bay Area Resiliency Design Challenge** CITYWIDE SLR ADAPTATION PLAN **Policy & financing tools** Near-term adaptation plans (high-risk shoreline areas & assets)

RESILIENCE BY DESIGN CHALLENGE



- Equitable
- Collaborative and Interdisciplinary
- Replicable and Implementable
- Innovative and Inspiring
- Community and Design-driven



LOCAL AND REGIONAL COOPERATION

ON-GOING COORDINATION

Organization Chart

PRIVATE-PUBLIC ADVISORY COMMITTEE

 Review Development and Implementation of Plan

MAYOR'S OFFICE

- Support SLR Coordinating Committee
- Advocate for State and Federal Policies

SEA LEVEL RISE COORDINATING COMMITTEE

 SLR Action Plan Implementation and Regional Coordination

SEA LEVEL RISE TECHNICAL COMMITTEE

- · Track Science
- Oversee CPC Guidance Implementation

SEA LEVEL RISE INTERDEPARTMENTAL WORKING GROUP

- Data Backup
- Monitor City Response to Floodings
- Track Grant Opportunities
- · Provide Recommendations





