

A PREPARED AND STRONGER COMMUNITY

The San Mateo County Sea Level Rise Vulnerability Assessment

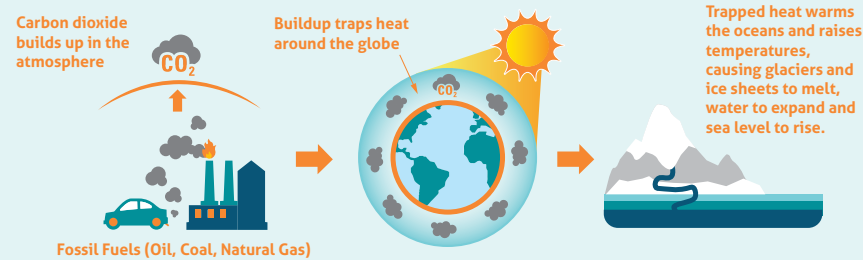
We value this area and all that it has to offer, which is why the County of San Mateo created a new program to help us prepare for the challenge of sea level rise. The **County's Sea Change program (Sea Change SMC)** is focused on building stronger and better prepared communities and ensuring a healthy and prosperous future for generations to come.



IT'S TIME TO GET SEA LEVEL WISE

San Mateo County is a vibrant place to live, work, and play. The County is home to beaches, parks, trails, diverse neighborhoods, as well as the San Francisco International Airport, the Port of Redwood City, and numerous renowned high-tech companies and businesses. Our network of infrastructure contains roads and highways, levees, electric substations, transmission towers, wastewater treatment plants, and pump stations that are essential to day-to-day community and economic functions. While the changing climate and rising seas poses many risks to people and places in San Mateo County, we can plan ahead to create communities of the future which can rise above the tide!

WE CAN RISE TO THE CURRENT CHALLENGE



In the near term, American researchers project sea levels in San Mateo County to rise 6 inches by 2030 and 1-2 feet by 2050. This could mean more disruptions to our daily life and greater community-wide and health impacts. So whether you live close to the shore or inland, sea level rise will impact all of us in San Mateo County, which is why we are taking practical common sense steps to address problems facing our environment today and in the future.

LIVING UP TO OUR DUTY TO PROTECT SAN MATEO COUNTY

We must protect our people and the places we love from being harmed and take care of our natural resources so they can continue to function and be enjoyed by our future generations. Understanding how sea level rise will affect San Mateo County residents, businesses, and the community services and infrastructure we all rely on is the first and most crucial step in building prepared, healthy and safe communities—the **San Mateo County Sea Level Rise Vulnerability Assessment** aims to do just that.



Map Assets and Future Risk Scenarios

Create inventory of people, places, and critical infrastructure to assess risks



Assess Vulnerability

Identify impacts of flooding, sea level rise and erosion on people, structures and community functions



Provide Actionable Results

Develop solutions to protect communities



Build Awareness

Share information with a wide variety of audiences



Facilitate Collaboration

Build a Countywide network to support joint action and solutions

THESE VALUABLE INTERCONNECTED PLACES NEED OUR PROTECTION

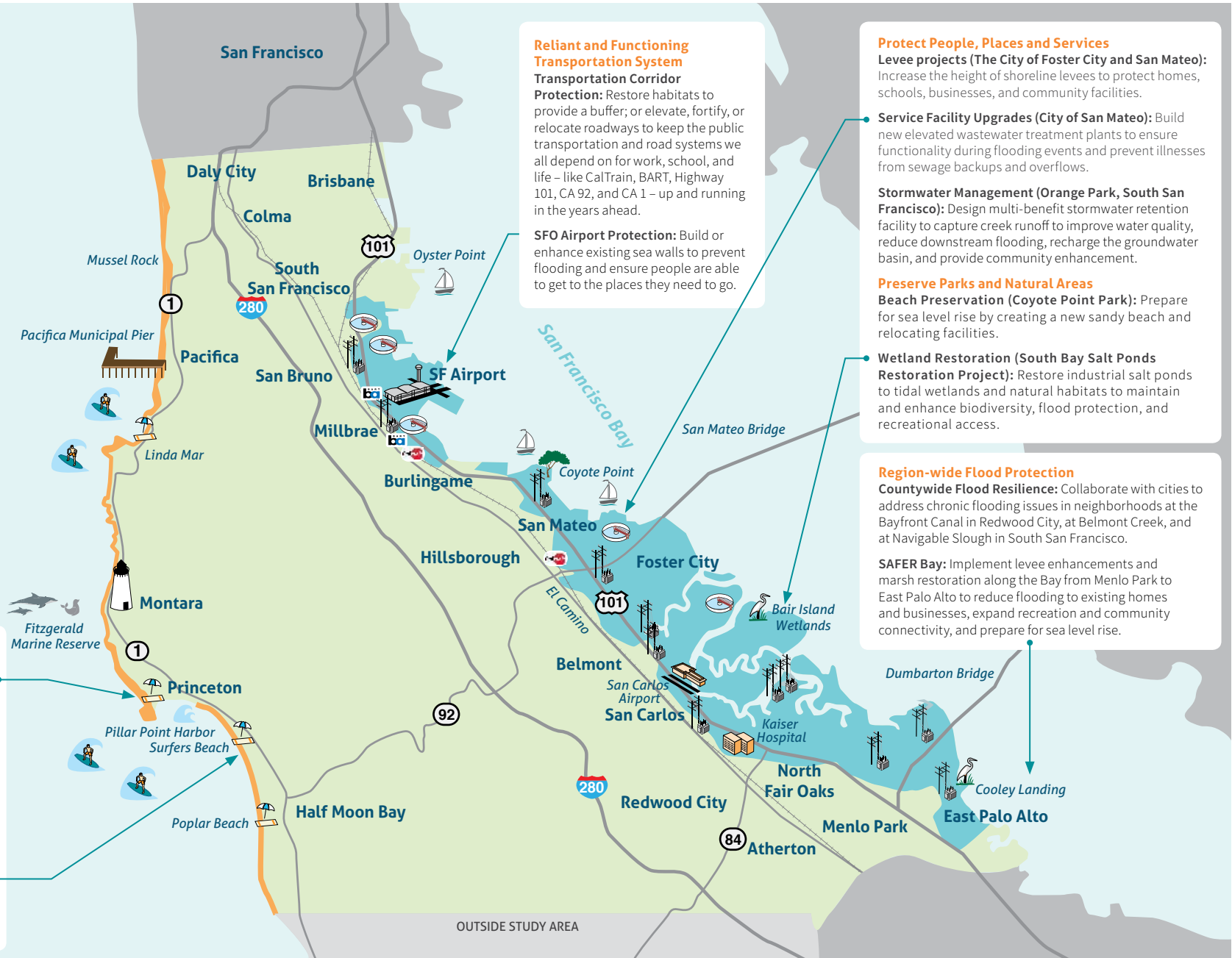
Our networked infrastructure and complex grid of services mean that sea level rise affects us all – a flooded highway, wastewater treatment plant or electrical substation could temporarily shut down businesses, close roads and affect neighborhoods and households throughout the county. There are solutions we can take to reduce these community-level risks. By working together, we can protect our community's many assets, including neighborhoods, businesses, parks, and beaches – places we all love. See the map for examples of what is at risk from sea level rise, and for solutions already underway or planned to protect our communities and the environment.

Legend

- Future Erosion*
- Mid-Level Scenario**
- Electric Substation
- Wastewater Treatment Plant

**Erosion impacts are estimated with 4.6 feet of sea level rise, but modeling does not consider shoreline armoring.*

***Estimated impacts are based on 1% annual chance storm or 1 in 100 chance of a storm occurring in any given year, plus additional 3.3 feet of sea level rise.*



Reliant and Functioning Transportation System
Transportation Corridor Protection: Restore habitats to provide a buffer; or elevate, fortify, or relocate roadways to keep the public transportation and road systems we all depend on for work, school, and life – like CalTrain, BART, Highway 101, CA 92, and CA 1 – up and running in the years ahead.

SFO Airport Protection: Build or enhance existing sea walls to prevent flooding and ensure people are able to get to the places they need to go.

Protect People, Places and Services
Levee projects (The City of Foster City and San Mateo): Increase the height of shoreline levees to protect homes, schools, businesses, and community facilities.

Service Facility Upgrades (City of San Mateo): Build new elevated wastewater treatment plants to ensure functionality during flooding events and prevent illnesses from sewage backups and overflows.

Stormwater Management (Orange Park, South San Francisco): Design multi-benefit stormwater retention facility to capture creek runoff to improve water quality, reduce downstream flooding, recharge the groundwater basin, and provide community enhancement.

Preserve Parks and Natural Areas
Beach Preservation (Coyote Point Park): Prepare for sea level rise by creating a new sandy beach and relocating facilities.

Wetland Restoration (South Bay Salt Ponds Restoration Project): Restore industrial salt ponds to tidal wetlands and natural habitats to maintain and enhance biodiversity, flood protection, and recreational access.

Region-wide Flood Protection
Countywide Flood Resilience: Collaborate with cities to address chronic flooding issues in neighborhoods at the Bayfront Canal in Redwood City, at Belmont Creek, and at Navigable Slough in South San Francisco.

SAFER Bay: Implement levee enhancements and marsh restoration along the Bay from Menlo Park to East Palo Alto to reduce flooding to existing homes and businesses, expand recreation and community connectivity, and prepare for sea level rise.

Protect People, Places and Services
Shoreline and Community Planning (Princeton, Half Moon Bay, Pacifica): Update Local Coastal Programs to address sea level rise in future coastal development, enhance services, and local coastal access, restore water quality and protect people, property, and sensitive habitats.

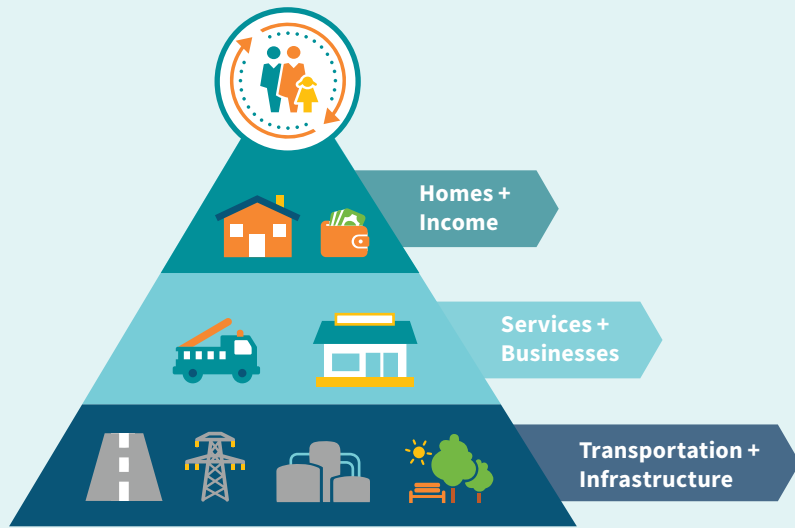
Bluff stabilization (Mirada Road): Build a reinforced wall, or a shoreline protection structure, to protect homes and businesses in the area from erosion.

Preserve Parks and Natural Areas
Surfer's Beach: Replenish sand on the beach to reduce erosion and protect the beach.

OUTSIDE STUDY AREA

WE NEED TO PROTECT OURSELVES TOO

Our current built environment, which offers housing, transportation, community spaces and services, and the biodiversity of our wetlands, recreational areas, beaches, and forests contribute richly to our quality of life. They enhance our physical and mental wellbeing, and are a central part of what makes San Mateo County such a wonderful place to live, work, and learn. Our community needs to work together to ensure that we continue to be mentally and physically healthy.



We support mental health and prevent social and economic disruption by protecting our homes, infrastructure, businesses, and community services. These enable us to work, access support systems, and meaningfully engage with our neighbors and communities. Avoiding disruption and displacement also reduces risks of stress, depression, suicide, and chronic illness.

We promote physical health and wellness by ensuring access to medical services and recreational areas, and by staving off post-flood related health hazards. Planning ahead can limit instances of trauma, drowning, carbon monoxide poisoning, mold-induced respiratory problems, water-borne diseases, and food-borne illnesses caused by food contamination and spoiled perishables.

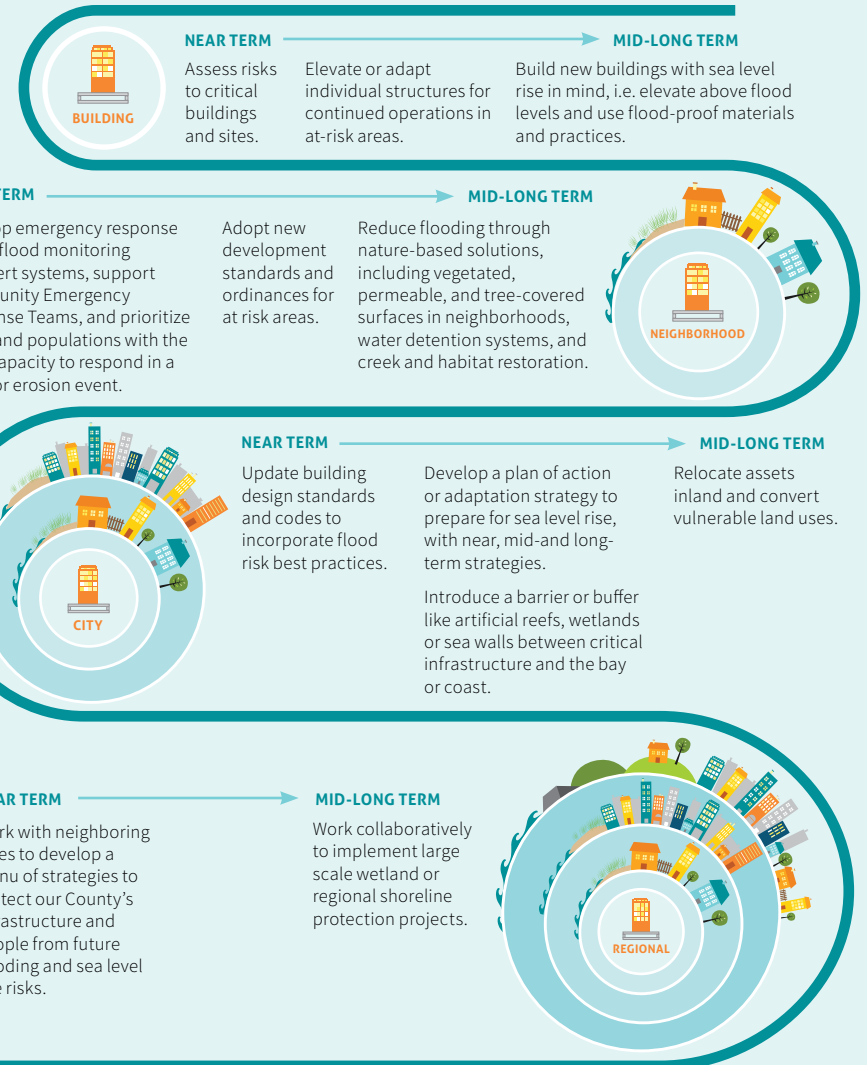
If we fail to act, the health and wellness of over 100,000 people could be impacted.

We can make a difference by handling problems before they get worse, especially for those who have limited resources to prepare and recover, including our children, elderly, lower income residents, and those who face unstable housing conditions and with limited access to vehicles. Taking action now is not only the right thing to do, it is also essential for the quality of life of our entire community and in the best interest of our future generations.

WHAT'S NEXT: DEVELOPING AN ADAPTATION STRATEGY

Now is the time to prepare for sea level rise. We need to develop and implement a preparedness plan for San Mateo County that carefully evaluates multiple potential actions, and the coordinated efforts to put our plans into action.

Where should we start? Many efforts to prepare for future impacts are already underway. Actions are generally needed at building or site specific, neighborhood, city and regional scales across three areas **(1) emergency preparedness efforts, (2) shoreline and site-specific strategies, and (3) policies, plans, and procedure updates.**



MOVING FORWARD TOGETHER

Let's work together to keep sea level rise at bay. While we adapt to changes, we must also meet the challenge where it starts by working to reduce CO2 emissions. It's time to get involved. Here's how.



Everyone

- » Visit SeaChangeSMC.com to learn more and to understand the risks
- » **Subscribe to our newsletter** (seachangesmc.com/get-involved/) and join us on Facebook (facebook.com/groups/SeaChangeSMC)



Residents

- » **Attend** future Sea Change SMC events like 'Shrinking Shores' or 'King Tides'. Visit SeaChangeSMC.com for more information
- » **Share** information about sea level rise preparedness with your neighbors
- » **Participate** in your city's community emergency response team. To sign up visit: <https://smccacert.samariteam.com/>
- » **Organize** as a neighborhood to prepare for storm emergencies
- » **Visit** your city's website to learn about and participate in planning and adaptation efforts in your community
- » **Take public transit** or ride a bike at least once a week
- » **Opt up** to 100% renewable electricity with Peninsula Clean Energy's Eco100 (peninsulacleanenergy.com)



Non-profits and Businesses

- » **Evaluate and prepare** for risks for your business by conducting a vulnerability assessment
- » **Develop a Climate Action Strategy** to reduce carbon dioxide emitted through your business operations
- » **Offer incentives** to employees to take transit or bike to work
- » **Join** the Sea Change SMC efforts to learn more about adaptation strategies and support local efforts to protect your businesses



County and City Government/Special Districts

- » **Integrate adaptation** strategies into policies, plans, building codes and operations
- » **Complete** local vulnerability assessments and develop plans to adapt key facilities and protect the shoreline
- » **Work** with other jurisdictions to identify and prioritize city-scale and regional shoreline protection measures
- » **Develop** targeted neighborhood plans to build safe and stronger communities
- » **Develop** a targeted public outreach campaign to increase awareness of climate change impacts and sea level rise
- » **Locate** businesses and homes close to transit
- » **Invest in public transit** and improve network of bike lanes and pedestrian safety



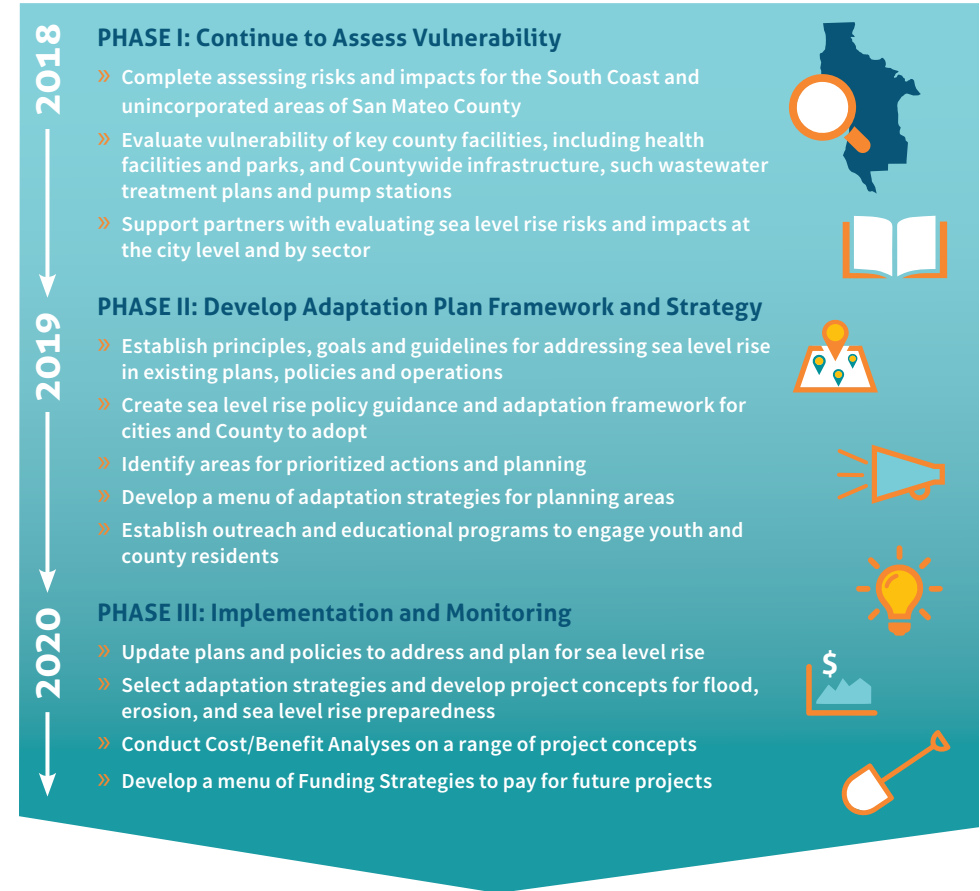
Elected Officials

- » **Be a champion** for sea level rise adaptation and allocate resources for staff to undertake efforts to plan and prepare for sea level rise and flooding impacts
- » **Be an advocate** for vulnerable populations and prioritize efforts such as energy efficiency and building retrofits, and flood preparedness resources for those with less capacity to respond to sea level rise

SHORING UP SAN MATEO'S TOMORROW STARTS TODAY

The County of San Mateo established the Sea Change SMC Initiative to facilitate coordinated Countywide action on sea level rise. Sea Change SMC will work to bring together and provide resources to local governments and agencies within the County on the issue of sea level rise and envisions this as a three-phase process:

SEA CHANGE SMC ACTION PLAN



Taking practical, common sense steps to address problems facing our environment today is in the best interest of future generations. We can't afford to neglect our people and the valuable natural resources and built environment that make San Mateo County a thriving place to live. We must instead work together to manage our resources responsibly to ensure they can be depended on and enjoyed long into the future. Let's get started - to meet the challenge of sea level rise, we're going to need all hands on deck!

CONTACT US

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 www.facebook.com/groups/SeaChangeSMC