

**San Mateo County Flood and Sea Level Rise Resiliency District
Agenda Report**

Date: December 15, 2025
To: San Mateo County Flood and Sea Level Rise Resiliency District Board of Directors
From: Len Materman, Chief Executive Officer (“CEO”)
Subject: Receive an update on the Millbrae and Burlingame Shoreline Resilience Project

Recommendation

That the San Mateo County Flood and Sea Level Rise Resiliency District (“OneShoreline”) Board of Directors (“Board”) receive an update on the Millbrae and Burlingame Shoreline Resilience Project (“MBSRP” or “Project”), including Project refinements, community and stakeholder engagement activities, and next steps.

Background and Discussion

The Millbrae and Burlingame Shoreline Resilience Project (“MBSRP”) is a cornerstone initiative for OneShoreline and for the region. This area of the county’s Bay shoreline presents several complex constraints that make our work here important for other areas of San Francisco Bay and beyond. These constraints include:

- limited space for protection, trail, and habitat infrastructure due to existing development;
- balancing regulatory requirements that prioritize nature-based approaches while limiting new Bay fill;
- managing flows during increasingly extreme storms and tides in four creeks and two lagoons that drain to the Bay;
- meeting FEMA-accredited flood protection standards; and
- not increasing wildlife hazards to aircraft operating at San Francisco International Airport (“SFO”).

At its core, the MBSRP will provide long-term resilience against sea level rise and reduce flooding from extreme storms for the vicinity east of Highway 101. This is a heavily developed area with regionally significant infrastructure, several parks, many hotels, restaurants, research and development enterprises, and other businesses that make it vital to the current and future prosperity of both cities.

While there are several public and private recreational opportunities in this vicinity, the most recognized public access amenity, the Bay Trail, is fragmented and in many areas dilapidated and even dangerous. Of great importance is the Project’s proposed creation of cohesive and enhanced public experiences that are resilient to future climate-driven conditions. In terms of environmental values, the area’s historical tidal flats, marshes, and shellfish habitats have largely been lost, and with sea level rise the area faces conversion to open water without targeted intervention. Together, these conditions demonstrate the urgency of a coordinated, long-term shoreline resilience strategy that links with, and leverages, resilience efforts by SFO to the north and the City of San Mateo to the south, forming a truly regional and aligned protection system.

The shoreline of Millbrae is composed entirely of Bayfront Park, which is owned by the City & County of San Francisco. It provides a pleasant recreational experience but is low lying (see the image at right from the Park) and not resilient, and it provides no long-term protection for the area. Further, its habitat is not conducive to being adjacent to a major airport. The MBSRP aims to raise the Park, preserve its positive user experience, and establish sustainable habitat that does not increase concerns over bird strikes.



For shoreline areas in the City of Burlingame, OneShoreline’s approach is, wherever possible, to leverage redevelopment guided by that city’s 2021 Zoning Ordinance and under-utilized parking areas to create space for resilience infrastructure that doesn’t impact the Bay or shoreline/riparian habitat; and otherwise to protect key assets that cannot be moved. The design of the flood protection infrastructure will be integrated with redevelopment projects that are planning their own FEMA accreditable designs to similar elevations, which promotes shared responsibility for resilience, leverages private resources, and minimizes the Project’s environmental impacts.

The MBSRP was last presented to the Board early this year, when staff discussed the feedback received during late 2024 community engagement activities, the general direction of alternatives (i.e., a nearshore and onshore), and the 2025 Project workplan. A summary of the Project is available at [OneShoreline.org/projects/Millbrae-Burlingame](https://www.oneshoreline.org/projects/Millbrae-Burlingame).

Throughout 2025, the Project team completed a reach-by-reach and parcel-by-parcel assessment of feasible shoreline protection measures, considering constructability, spatial limitations, ecological opportunities, flood benefits, property constraints, and compatibility with SFO's safety needs. Several previously considered concepts, such as offshore or nearshore tidal barriers with lagoons, "park tunnels," and broad horizontal levees, were removed from further consideration due to technical infeasibility, regulatory challenges, and/or conflicts with Federal Aviation Administration ("FAA") wildlife hazard guidance.

The alternative now being analyzed for a Draft Environmental Impact Report emphasizes onshore protection where redevelopment allows, including multipurpose levees designed for rocky intertidal benefit, raised park areas such as Bayfront Park, and seawall reaches where constrained by airport operations or existing aquatic habitat, and tide gates. While the MBSRP proposes different flood protection and habitat features in different reaches of the shoreline, it provides a uniform level of protection against sea level rise and storms and a uniform feel to the visitor with a significantly enhanced trail, small beaches, and native landscapes. Implementation will very likely occur in phases, reflecting funding availability, redevelopment, permitting requirements, environmental considerations, and coordination with partner agencies and affected landowners.

OneShoreline has initiated early consultation with state permitting agencies, including the Bay Conservation and Development Commission ("BCDC"), California Department of Fish & Wildlife, and Regional Water Quality Control Board, and federal permitting agencies, including the U.S. Army Corps of Engineers, NOAA Fisheries, and the U.S. Fish and Wildlife Service. Early regulatory feedback will guide future design refinements, inform analysis of the Project under the California Environmental Quality Act (CEQA), and identify data needs in advance of the permitting phase. Just before Thanksgiving, OneShoreline met with SFO's Director and staff to ensure focused engagement between OneShoreline, SFO, and the FAA regarding Project design and land issues.

In addition, OneShoreline will continue to meet with community-based organizations and shoreline landowners, hotel operators and other businesses to gather input on design refinements, construction access needs, Bay Trail connections, and opportunities for alignment with redevelopment projects. This coordination will be essential for shaping parcel-specific design solutions and supporting long-term maintenance, access, and resilience outcomes.

These efforts will support completion of the studies required for environmental review. The Project team is working toward releasing the Draft Environmental Impact Report ("Draft EIR") in the Spring of 2026, which will evaluate the refined Project alternative, compare it to reasonable alternatives, assess environmental impacts, and identify mitigation measures.

Impact on OneShoreline Resources

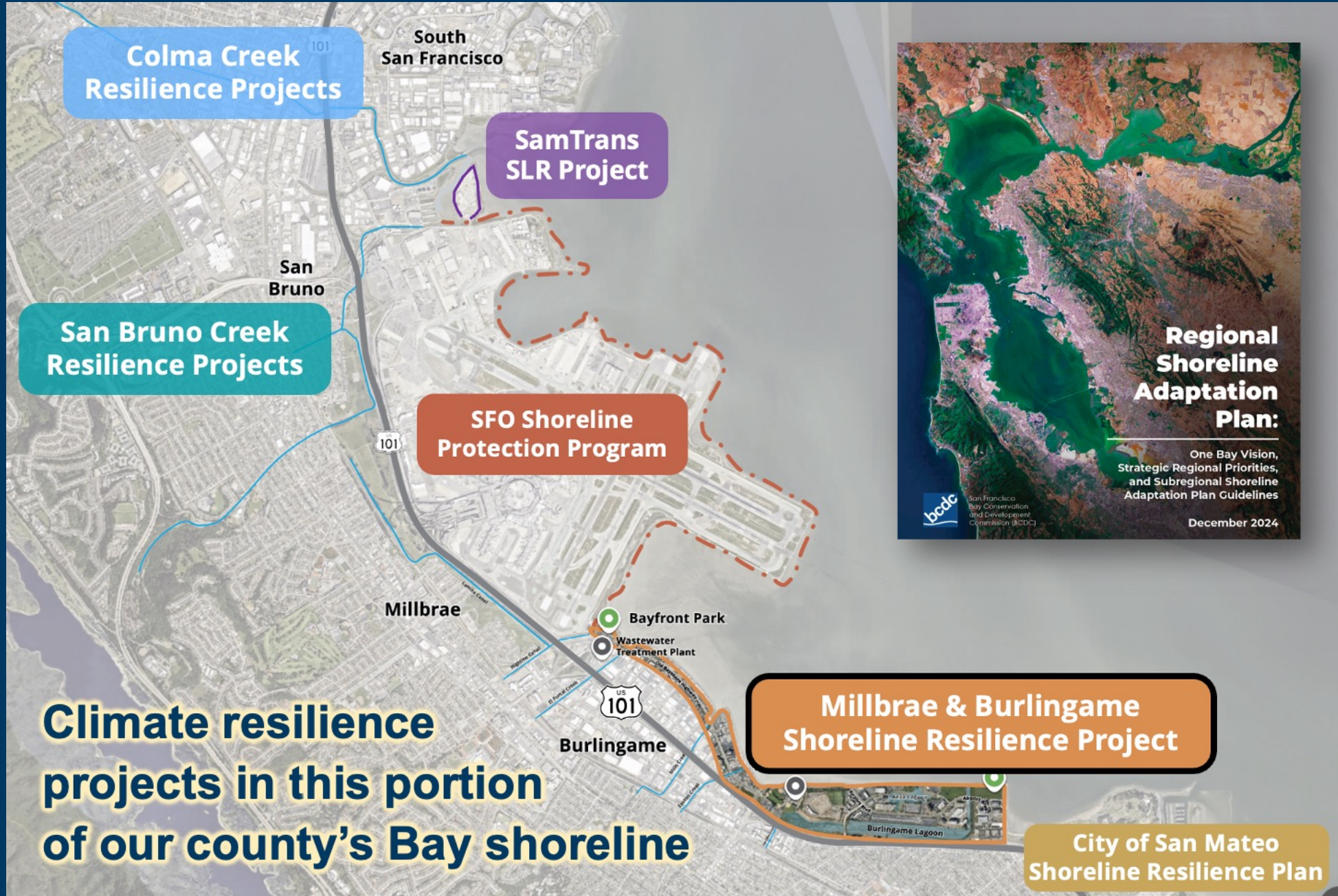
There is no impact on OneShoreline resources to receive this update. The planning phase work, including alternatives development, concept design, preparation of the Draft EIR, and engagement is funded by grants from the State Coastal Conservancy and the Federal Emergency Management Agency and is included in the Fiscal Year 2025-26 Capital Projects Budget.

Attachments

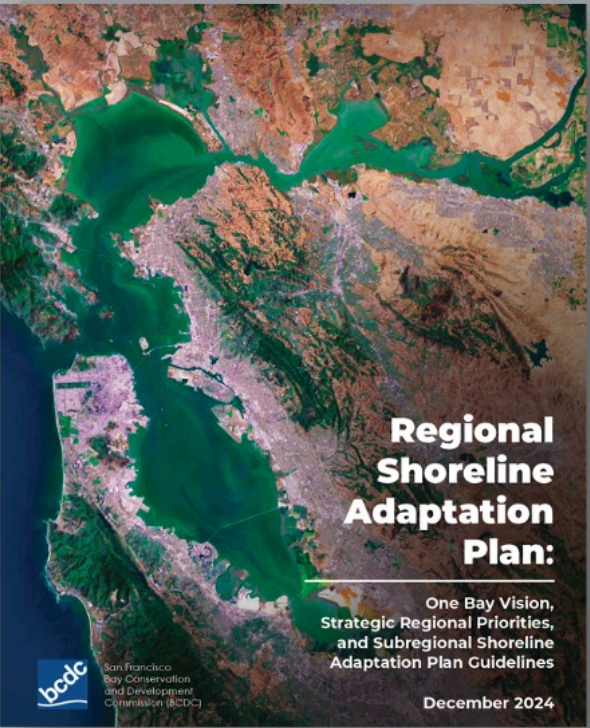
None

Agenda item 4D:

Receive an update on the Millbrae and Burlingame Shoreline Resilience Project



Climate resilience projects in this portion of our county's Bay shoreline



The Millbrae and Burlingame Shoreline Resilience Project Area includes dozens of hotels, restaurants, other businesses, and key infrastructure and recreational assets.

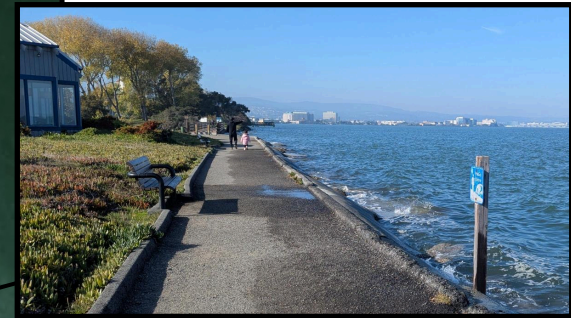
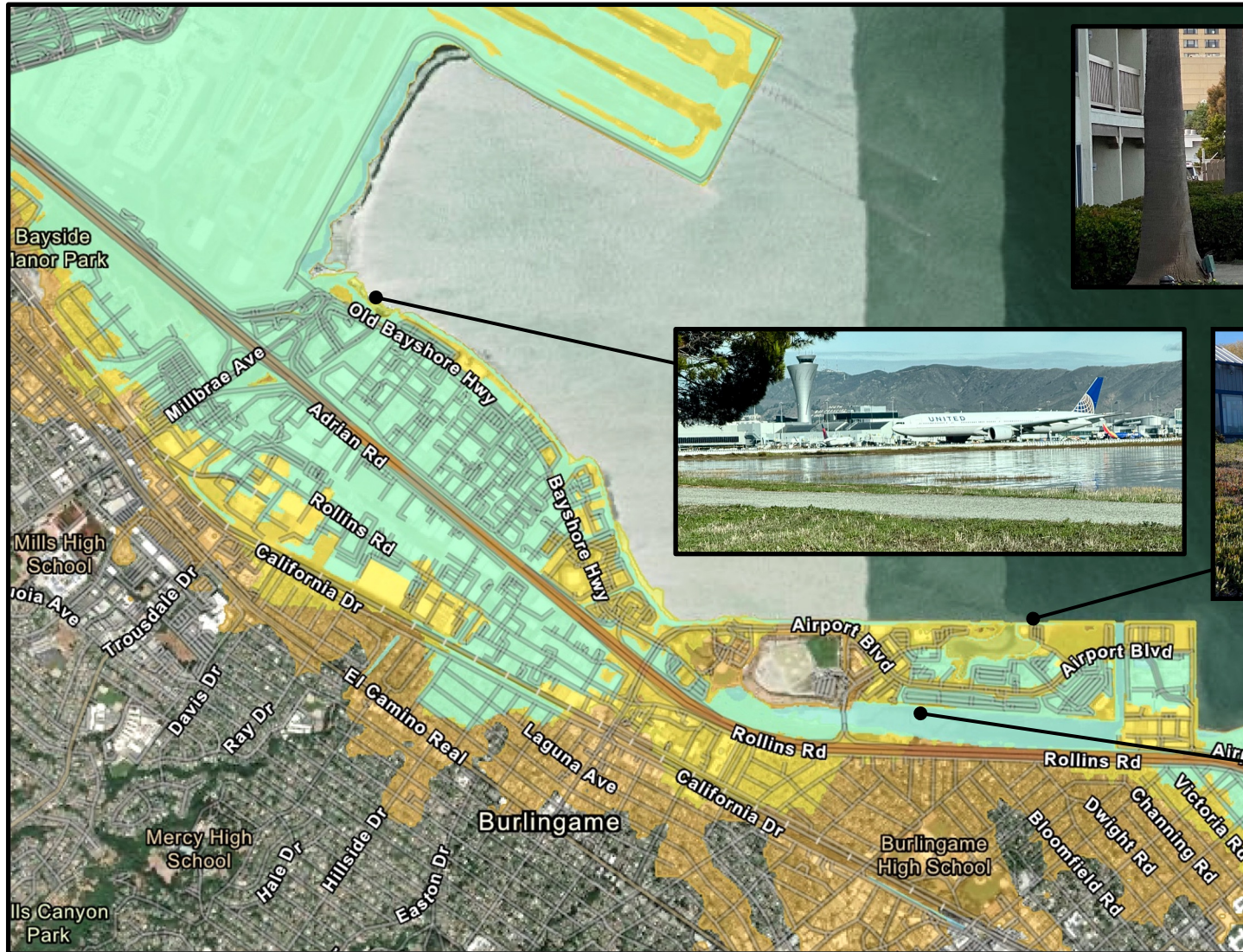


Current and Projected Flood Risk in Millbrae and Burlingame

Current FEMA
100-year
floodplain

+ Sea Level Rise

+ Shallow
Groundwater
Rise



Data sources: FEMA and USGS



Project Goal: Long-term climate resilience against sea level rise and extreme storms for developed, natural, and public access areas

Coastal Flood Protection



Protect shoreline area against current and future hazards

Functioning Habitat



Facilitate healthy, sustainable ecosystems

Public Access + Recreation



Enhance the shoreline area experience today and for the future



Details on the project need, objectives, and constraints: [OneShoreline.org/MBSRP](https://www.1shoreside.org/MBSRP)

Project History & Next Steps



Public and Partner Outreach

- Outreach started in Oct. 2023 with the **Notice of Preparation (NOP)** of an EIR to initiate the CEQA process
- **Fall 2024 community engagement on draft alternatives** included:
 - 10 project vetting partner meetings
 - 2 in person community meetings
 - 2 walking tours
- **Feb 2025 intercept outreach**
 - Conducted along the waterfront trail
- **Sept 2025 Nature Based Solutions workshop** with regulatory agencies and experts



A key ongoing Project consideration

SFO/FAA Constraint

Entire project area falls within Airport Influence Area and must consider FAA and SFO concerns about attracting birds that could impact aviation safety.

Project Planning Principle

Project must achieve **no net increase in hazardous wildlife attraction**, thus requiring nuanced design of habitat types, public spaces, and mitigation and monitoring.

Key Tools Guiding Project Design

Wildlife Hazard Mitigation
Design Principles

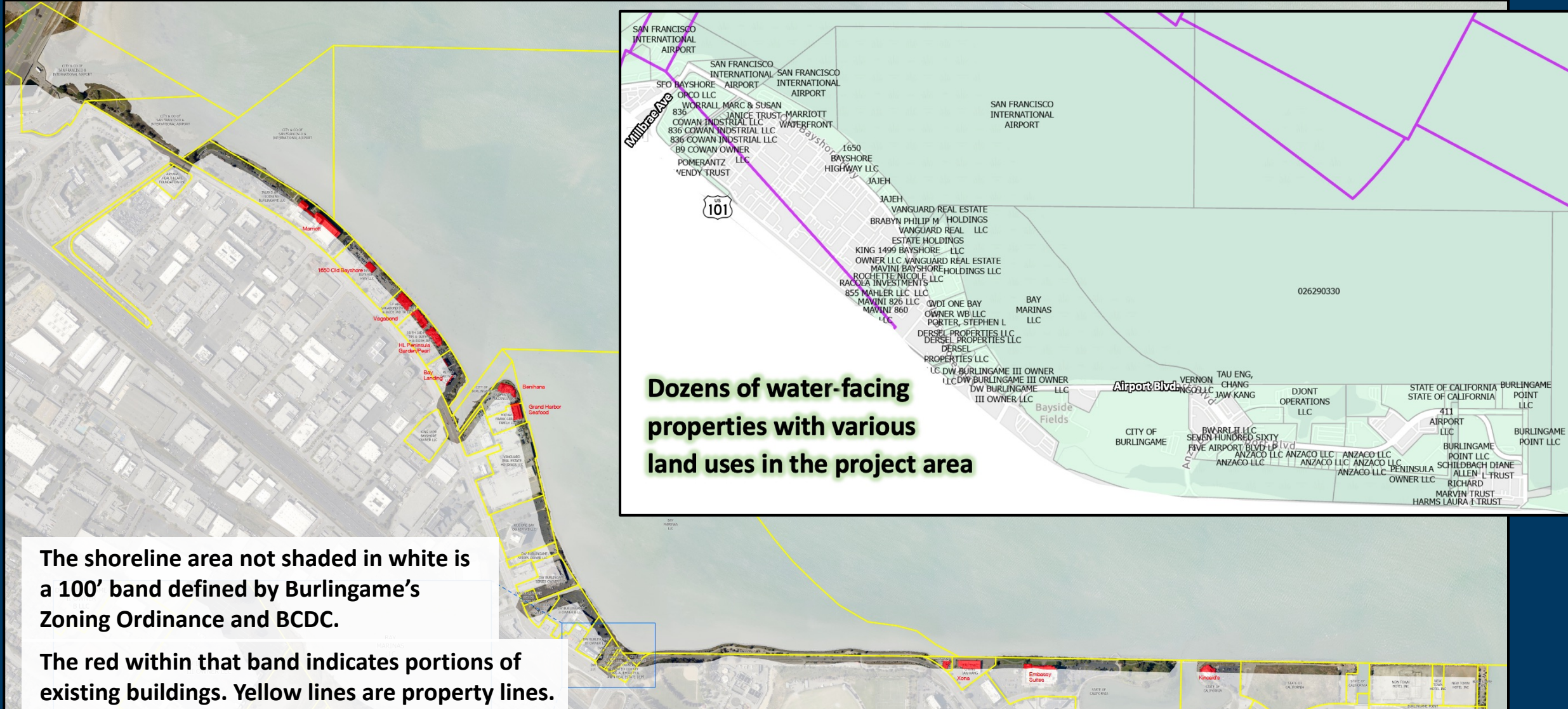
CEQA Analysis

Regulatory Permits Constraint

BCDC's RSAP and other agencies require projects to prioritize nature-based measures where feasible.

Note: Ecosystem restoration benefits can make the project more readily permittable and more competitive for regional, state, and federal funding sources





Dozens of water-facing properties with various land uses in the project area

The shoreline area not shaded in white is a 100' band defined by Burlingame's Zoning Ordinance and BCDC.

The red within that band indicates portions of existing buildings. Yellow lines are property lines.

Project approach:

- Everywhere possible, leverage redevelopment guided by Burlingame's Zoning Ordinance and under-utilized parking areas to create space for resilience infrastructure that doesn't impact the Bay or shoreline/riparian habitat
- Otherwise protect key assets that cannot be moved.



Alternatives Refinement During 2025

- **Align project objectives with new state RSAP guidelines**
- **Analyze detailed site constraints for design**
- **Remove features including offshore tunnels, pump stations and 10:1 horizontal levees**
- **Incorporate Nature Based Solutions consistent with SFO wildlife hazard guidance**
- **For every waterfront parcel, tailor flood protection measures and footprints in the context of opportunities created by Burlingame's 2021 zoning update**

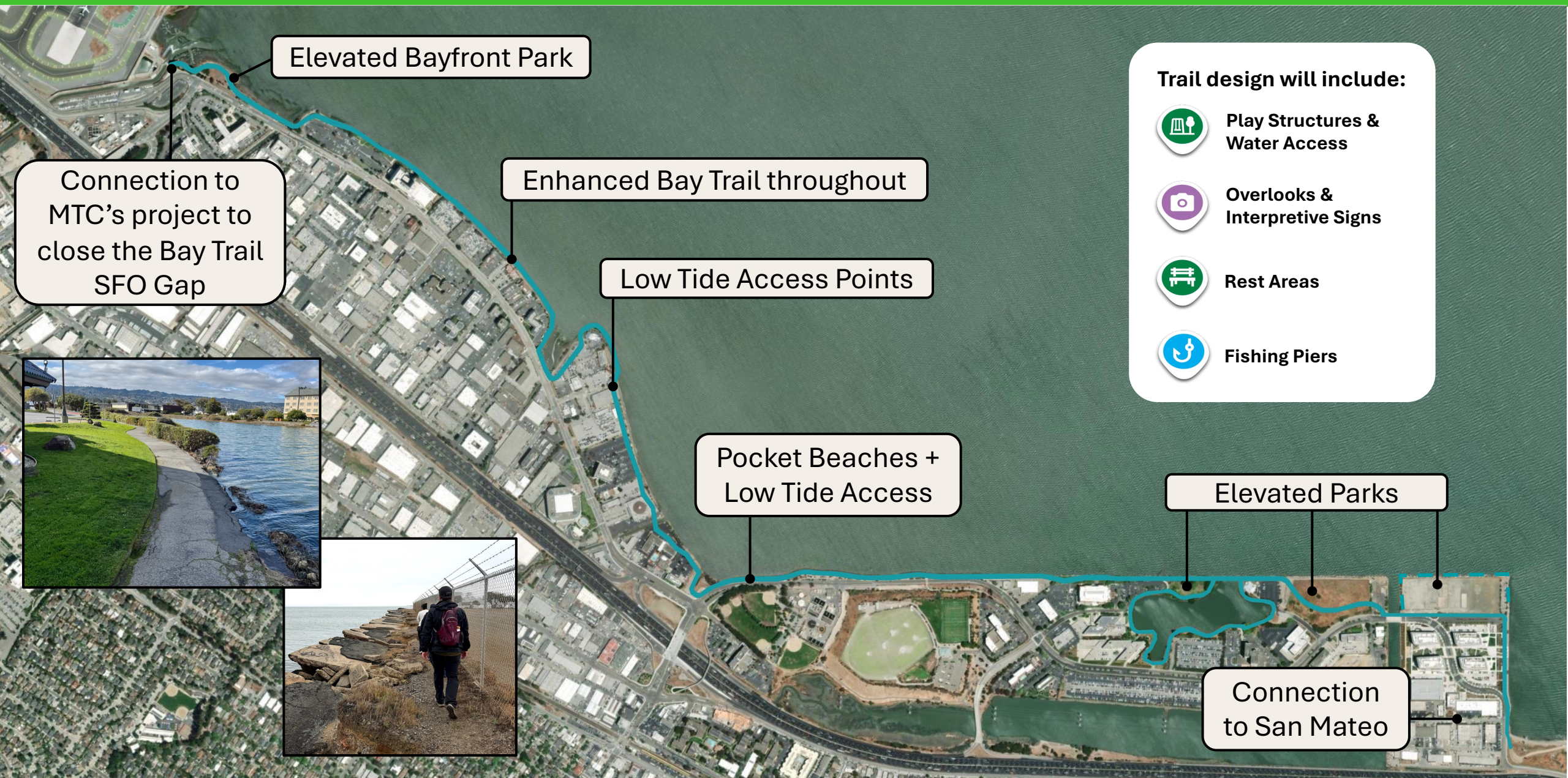


Uniform Project Features

Engineered and nature-based infrastructure that provides resilience to future conditions for developed areas, a cohesive and enhanced public experience, and substantially improved habitat



Continuous, improved, and resilient Bay Trail (mostly 18 feet wide)



Elevated Bayfront Park





Connection to MTC's project to close the Bay Trail SFO Gap

Enhanced Bay Trail throughout

Low Tide Access Points

Pocket Beaches + Low Tide Access

Trail design will include:

-  Play Structures & Water Access
-  Overlooks & Interpretive Signs
-  Rest Areas
-  Fishing Piers

Elevated Parks

Connection to San Mateo



The first half of 2026: Technical, Funding, and Policy Work

OneShoreline led efforts:

- **Discussions with SFO and regulatory agencies on approaches to shoreline infrastructure and nature-based measures**
- **Discussions with regulatory agencies on Bay fill for habitat and mitigation**
- **Analysis of impacts in Draft EIR**

City and OneShoreline led efforts:

- **Initiate phasing/financing discussions**
- **Property owner discussions**
- **Seek funding to complete Final EIR, design, and RSAP-compliant plan**
- **Integrate OneShoreline's project plan, development proposals, and Burlingame's upcoming Bayfront Specific Plan**