

CITY OF SANTA BARBARA WATERFRONT DEPARTMENT

MEMORANDUM

Date: November 21, 2024

To: Harbor Commission

From: Timmy Bolton, Climate Adaptation Analyst, Sustainability & Resilience Department

Subject: **Sea Level Rise Adaptation Plan Update**

RECOMMENDATION:

That Harbor Commission receive a presentation from the City of Santa Barbara Sustainability and Resilience Department providing an update on the City's Sea Level Rise Adaptation Plan.

DISCUSSION:

On July 2, 2024, City Council approved a \$1,330,000 contract with Stantec Consulting Services, Inc to draft a 30-Year Waterfront Adaptation Plan for the Waterfront Area of the City that spans from Leadbetter Beach to the Clarke Estate. This contract is completely funded by grants provided by the California Coastal Commission and State Coastal Conservancy.

This work effort is part of the Sustainability & Resilience Department's Adaptation & Resilience Program, which focuses on addressing the increasing hazards from climate change, including flooding, erosion, wildfire, and rising groundwater. In 2021, City Council adopted a Sea-Level Rise Adaptation Plan. Since then, the City has obtained over \$5 million in grant funds from the California Coastal Commission and State Coastal Conservancy to implement several additional high priority adaptation projects including:

1. A Regional Coastal Adaptation Monitoring Program administered by BEACON.
2. A Wastewater and Water Systems Climate Adaptation Plan, with a particular focus on the vulnerabilities of the wastewater collection system.
3. A Climate Adaptation Plan for the Airport.
4. Stormwater modeling that considers changes in flooding from combined rainfall and high wave events and includes potential adaptation options for the stormwater system.

The 30-Year Waterfront Adaptation Plan will provide solutions to address the coastal hazard impacts that the Waterfront has experienced during major coastal storm events, such as flooding, structure damage, storm surge, sand deposition, and erosion. It will also implement a high priority recommendation from the 2021 Sea-Level Rise Adaptation Plan to develop near-term actions that will enhance our community's resilience to climate change and sea-level rise.

The Plan focuses on a 30-year time horizon because there is a high level of scientific consensus about the anticipated amount of sea-level rise during this period and it reflects a manageable horizon for infrastructure planning. Additionally, 30 years reflects a timeframe during which significant increases in storm damage risks in the Waterfront area are likely, but largescale alterations (such as levees, continuous seawalls, or extensive abandonment) are not expected to be required.

The outcome of this work effort will be a practical plan that prepares the Santa Barbara Waterfront for increased storm surges, erosion, and flooding by providing solutions that preserve and enhance recreation, commerce, beach access, habitat, and critical infrastructure for the near term and future generations.

Key elements of the Plan will include:

- A refined hazard definition and updated exposure analysis that incorporates wave run-up, geomorphology, dredging and sediment management, and groundwater rise.
- Vulnerability profiles and graphics that support community engagement, with an interactive, bilingual hazards map.
- An analysis of adaptation options for major assets along the Waterfront that considers feasibility, effectiveness, costs, the unique characteristics of the Waterfront area, the City's vision for access and connectivity, and regulatory framework. Particular attention will be paid to the Harbor Commercial Area and Harbor West Parking Lot areas that have experienced frequent flooding and storm surge during the last few winters.
- A design for an enhanced bicycle path connection between the Harbor Commercial Area and Leadbetter Beach that improves safety for all users and supports the adaptation strategy.
- A Harbor breakwater and groins analysis that assesses the feasibility and costs of raising and potential modifications to these existing protective structures.
- State and regulatory agency coordination and consultation.
- Bilingual, interactive, and engaging community outreach.
- Conceptual designs for key recommended adaptation projects.

The work effort is being managed by the Sustainability & Resilience Department, in collaboration with the City Attorney, Community Development, Parks & Recreation, Public Works, and Waterfront Departments.

The Plan was kicked off in September 2024 and initial work is underway. Staff anticipates engaging the Harbor Commission multiple times throughout the planning process to review major deliverables, help guide adaptation strategy development, support community engagement, and ultimately make a recommendation on the final Plan prior to City Council consideration in Fall 2026.

Prepared by: Timmy Bolton, Climate Adaptation Analyst, Sustainability & Resilience Department