



SUSTAINABILITY & RESILIENCE DEPARTMENT

ADAPTATION & RESILIENCE DIVISION

WATERFRONT ADAPTATION PLAN

Zoom Webinar – May 6, 2026



CALIFORNIA
COASTAL
COMMISSION



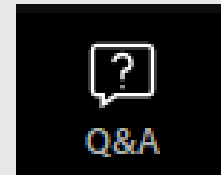
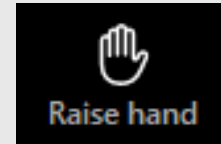
SantaBarbaraCA.gov

Traducción e Interpretación de la Reunión

Hay servicios de traducción disponibles.

Si desea escuchar la presentación en español, por favor utilice la función de **“Raise hand” (levantar la mano)** de Zoom o use el chat **(Q&A)** para enviar un mensaje a los organizadores.

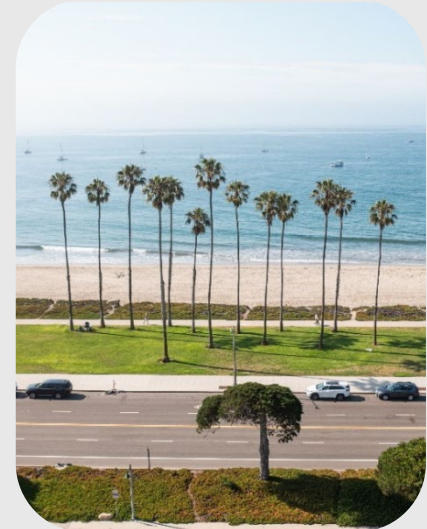
Una vez que comience la presentación, se le pedirá que seleccione la opción de **Interpretación**.



Today's Agenda

Presentation (30 Minutes)

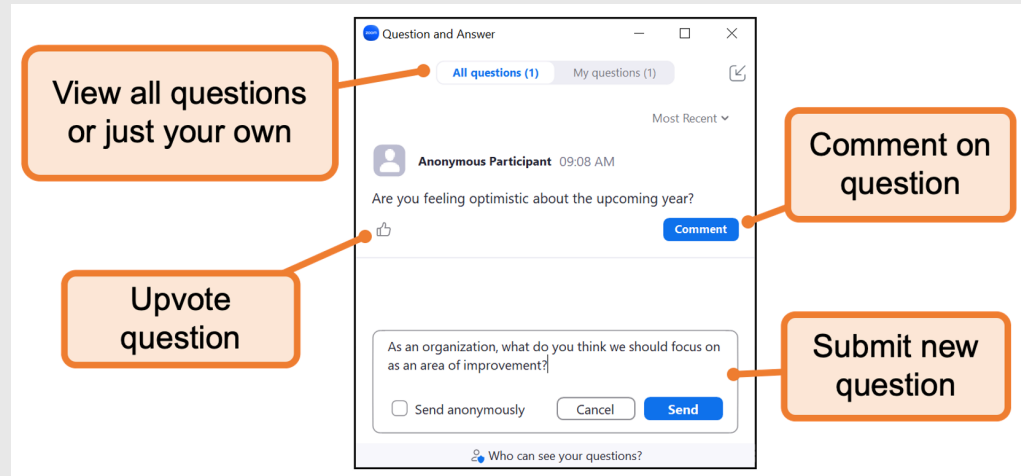
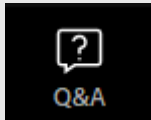
- City's Program to Address Hazards
- Coastal Hazard Risks at the Waterfront
- Potential Options to Consider Further
- Next Steps



Q & A (Until 1pm)

Please Ask Questions in the Chat

Submit questions using the **Q&A** feature in Zoom.



The screenshot shows the Zoom 'Question and Answer' interface. It features a list of questions, a question from an 'Anonymous Participant' asking 'Are you feeling optimistic about the upcoming year?', and a form to submit a new question: 'As an organization, what do you think we should focus on as an area of improvement?'. The form includes a 'Send anonymously' checkbox, 'Cancel', and 'Send' buttons. A dropdown menu at the bottom asks 'Who can see your questions?'. Four orange callout boxes with arrows point to specific features: 'View all questions or just your own' points to the 'All questions (1)' and 'My questions (1)' tabs; 'Upvote question' points to the thumbs-up icon; 'Comment on question' points to the 'Comment' button; and 'Submit new question' points to the text input field.

ADAPTATION & RESILIENCE PROGRAM

Program Purpose

Help our community **prepare for current and future** climate-related hazards like sea level rise, flooding, erosion, and wildfires.



Active Major Projects

- Regional Coastal Adaptation Monitoring Program
- Wastewater & Water Systems Climate Adaptation Plan
- Waterfront Adaptation Plan
- Laguna Flood Resilience Study
- Airport Climate Adaptation Plan



CALIFORNIA
COASTAL
COMMISSION



Coastal
Conservancy

WATERFRONT ADAPTATION PLAN



City Staff Team



Consultant Team

A collection of logos for the consultant team, arranged in a white rounded rectangle. The logos include: Stantec (black and white logo), bionic (blue square with white text), ESA (orange text with a grey square graphic), Coastal Restoration Consultants (text with a landscape illustration), and Summit Environmental Group (text with a blue mountain graphic).

Waterfront Adaptation Plan Vision

Develop practical solutions to address coastal flooding and erosion for the next 30 years, while enhancing beach access, recreation, boating, and habitat.

Project Schedule

2024

2025

2026

2027



Today



Project Area



3-mile Waterfront Focus Area

The Everchanging Waterfront Shoreline



Syuxtun Chumash Village



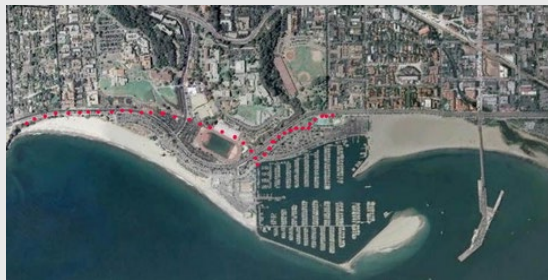
Wharf Spur Construction 1890



Waterfront Pre Harbor



Harbor Under Construction



Harbor Post Construction



The Current Waterfront

CHALLENGES TODAY & IN THE FUTURE

Beach erosion, flooding, and sea level rise

Today's Damages from the Ocean

Erosion from waves



Flooding from ocean



Storms today are causing damages and disruption - \$3M from 2023 storm alone

Today's Erosion at East Beach

November 2025

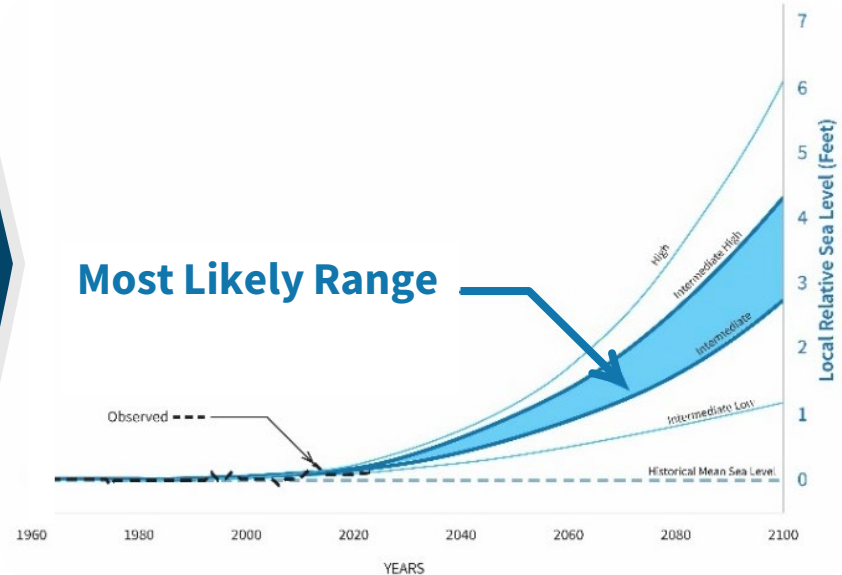
Over the last 20 years, East beach **eroded significantly** (5 ft/yr in some areas)



Increased erosion causes **more inland flooding risk**

Sea Level Rise & Tomorrow's Shoreline

- Today, El Niño and big waves are biggest threat
- Sea level rise will increase storm damage and erosion
 - 3-4" of sea level rise since 2000
 - Will accelerate in coming years



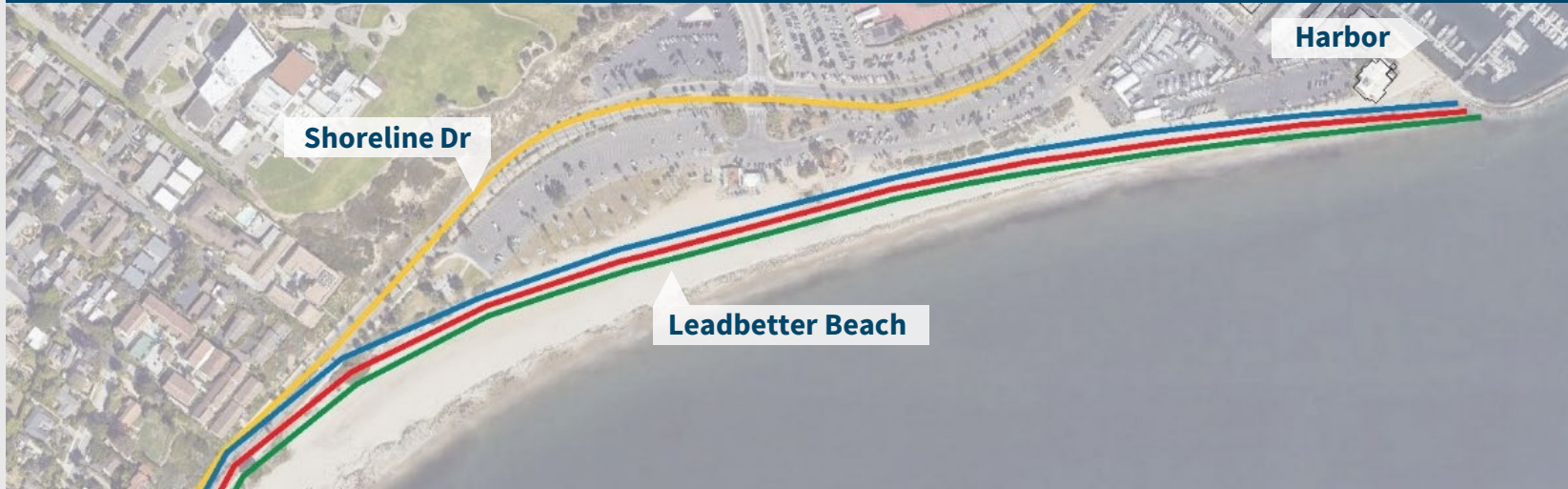
Tomorrow's Bluff Areas



Access to beaches with bluffs will become limited, making **Waterfront beaches even more important**

Tomorrow's Leadbetter Beach (no action)

Leadbetter Beach narrows



0.8' SLR ~2050

1.6' SLR ~2065

2.5' SLR ~2075

Waterfront "Hold the Line" Position

Tomorrow's West Beach (no action)

West Beach remains wide



0.8' SLR ~2050

1.6' SLR ~2065

2.5' SLR ~2075

Waterfront "Hold the Line" Position

Tomorrow's East Beach (no action)

East Beach narrows fast



0.8' SLR ~2050

1.6' SLR ~2065

2.5' SLR ~2075

Waterfront "Hold the Line" Position

We Need a Backstop for Ocean Flooding



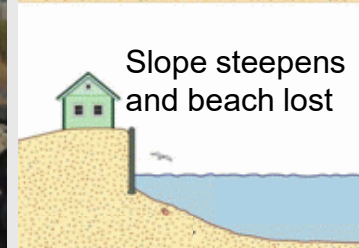
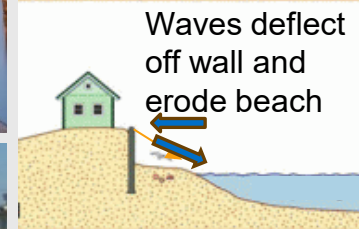
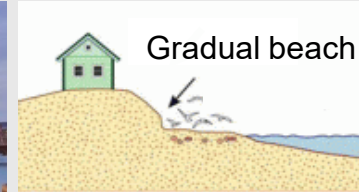
High tide today Future High tide 1-year storm 20-year storm 100-year storm

THE TOOLBOX OF POTENTIAL SOLUTIONS & OPPORTUNITIES

It's not all doom and gloom; there's a toolbox

Sea Walls & Revetments

- Fixed edge along shoreline to limit erosion & flooding
- Make beaches narrower when close to ocean
- Complex permitting



Beach Nourishment, Sand Berms, Dunes

- Widen beaches
- Quickly lost with big waves and storms
- Require maintenance
- Need sand source
- Waterfront lacks conditions for self-building dunes



Groins, Headlands & Artificial Reefs

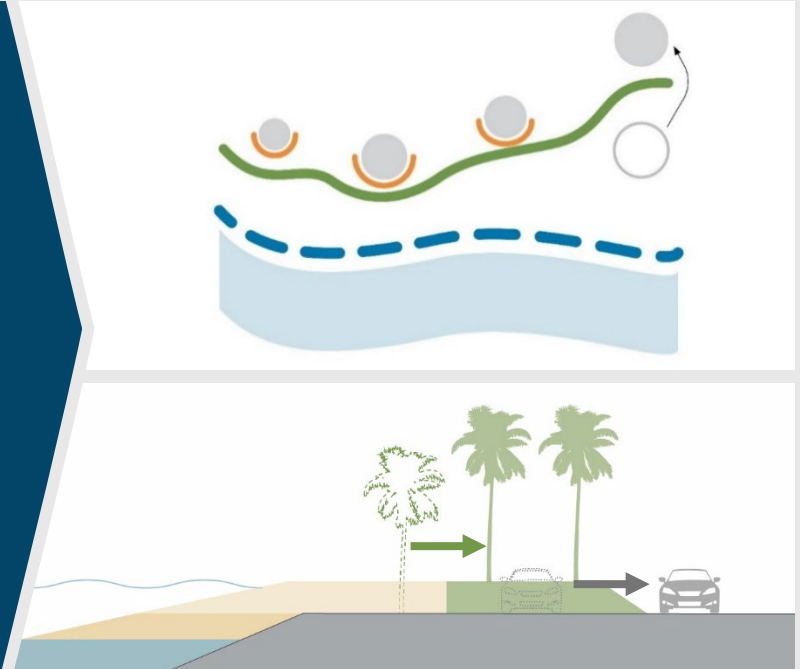
- Trap sand
- Need to prefill with sand & regularly renourish with sand
- Hard to permit, costly, & controversial
- Reefs only effective under certain conditions



Source: ReBeach.Org

Relocation or Removal of Development

- Maintains sandy beach as shoreline migrates inland
- Reduces risks
- Need to consider:
 - *Ability to relocate*
 - *Changes in use, revenue, & leases*



Opportunities to Improve the Experience



Add walking & biking path



Reimagine West Beach



Improve views & entries



Add facilities



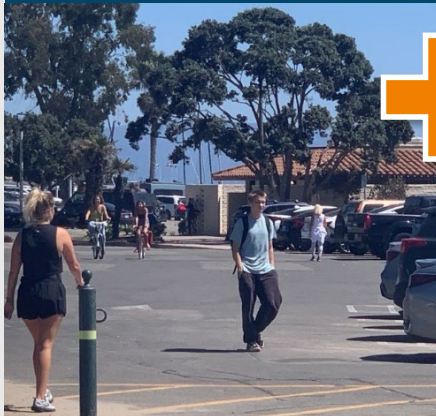
Enhance economic vitality



Expand recreation

Opportunity for Multi-benefit Solutions

Opportunity:
**New separated
walk & bike path**



Opportunity:
**Address
hazard risk**



Multi-benefit Solution:
**Elevated & separated
walk & bike path**



PUTTING THE PIECES TOGETHER

Preliminary List of Options for Further Evaluation

Waterfront-Wide Goals & Priorities

Save the sandy beach and enhance recreation

Protect the working harbor

Protect inland areas from ocean flooding

Provide continuous separated walking and biking path



Project Categories

30-Year Plan Timeline

Quick Wins
(\$)

Core Measures
(\$\$\$)

Future Options
(\$\$\$\$\$)



LEADBETTER BEACH OPTIONS

*A sandy beach &
recreation
destination*





Leadbetter Potential Quick Wins: *Immediate safety & flooding fixes*



1 Restripe first row of parking to a walking & biking path



2 Deployable flood proofing



3 Low wall next to new path



4 Convert unused area to parking

Leadbetter Potential Core Measures:

Keep sandy beach by moving things back

1



Move parks, paths, & assets inland to keep sandy beach

2



Raise path to limit flooding

3



Relocate when replacement facilities available or flood & erosion risk reach set limits



4



Relocate parking to new parking garages at existing surface lot

5



Improve stormwater drainage

Leadbetter Potential Future Options:

Larger projects for a wider beach & more protection



1

Keep sandy beach for longer by moving paths, parks, and facilities further inland



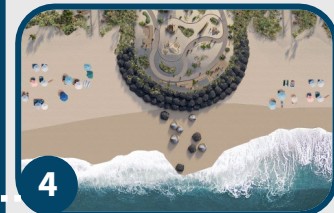
2

Raise path higher to reduce flood risk for higher sea levels



3

Space for park and relocated facilities

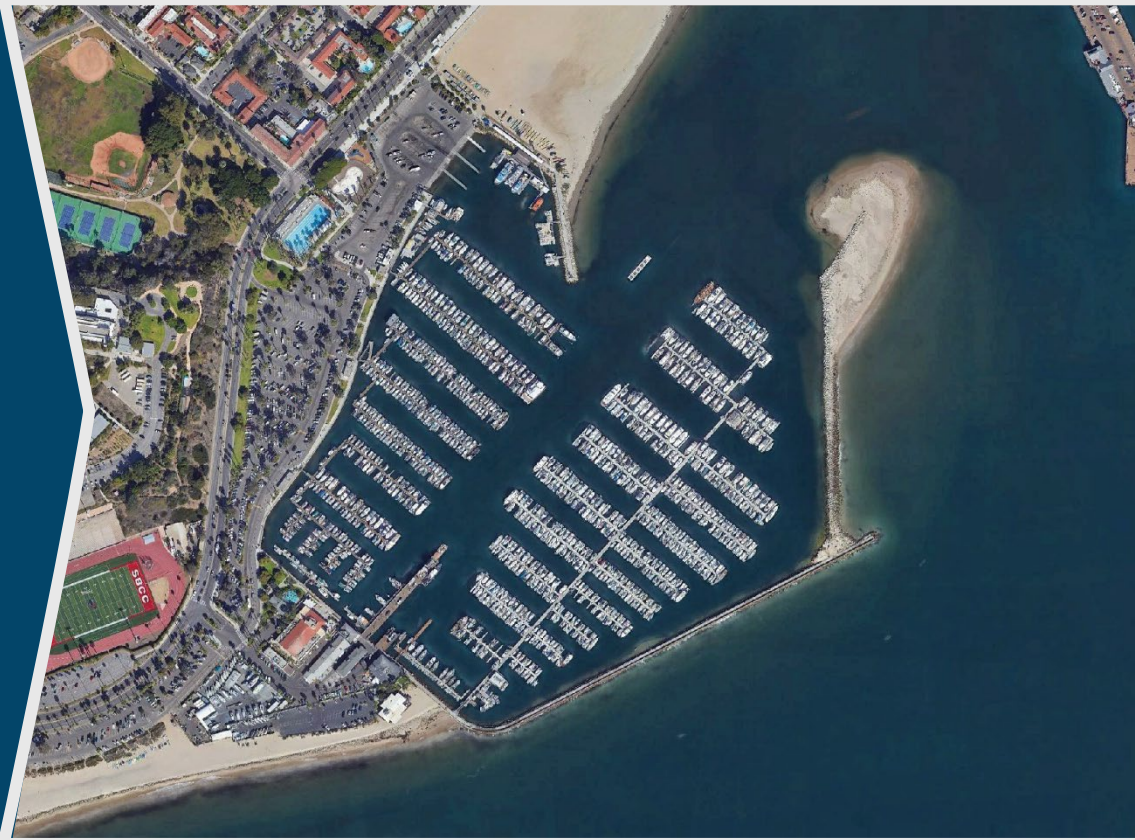


4

Headland at Harbor breakwater (not shown) with nourishment to widen beach

HARBOR OPTIONS

*A commercial
fishing,
recreation, &
public access
destination*



Harbor Potential Quick Wins:

Immediate safety & flooding fixes



1 Deployable flood proofing



2 Drainage improvements



3 Restripe first row of parking to a walking & biking path

Harbor Potential Core Measures:

Flood protection, prioritize public access & boating



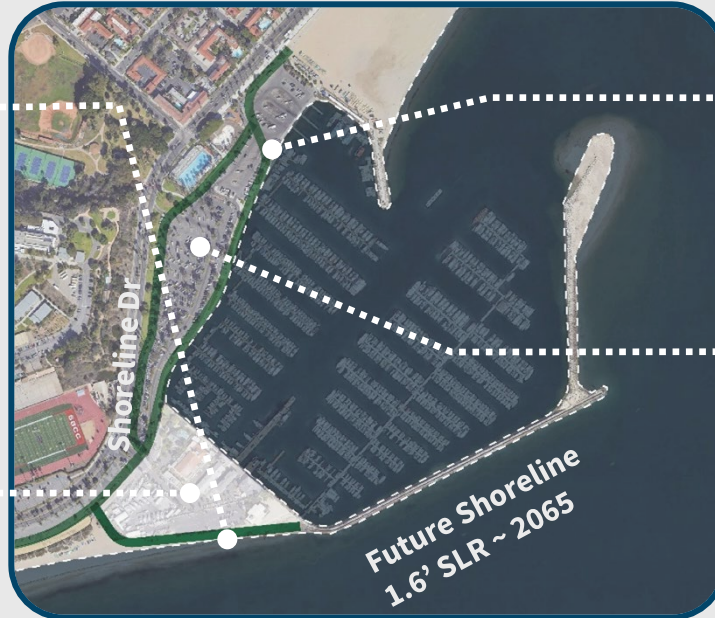
1

Pedestrian promenade on raised revetment for flood protection & better access



2

Protect & improve Harbor Commercial area for better public access & boating



3

Enhance & raise walking & biking paths for better access & flood protection



4

Explore converting some parking for economic development

Harbor Potential Future Options: *Further protection*



- 1** Raise all paths and edges for greater flood protection



- 2** Headland with beach nourishment to widen beach



- 3** Sand trap to protect harbor entrance



- 4** Wave screen to protect marinas

WEST BEACH OPTIONS

*A premier
sandy beach
destination*



West Beach Potential Core Measures:

Premier sandy beach experience



1 Relocate storm drain to improve sand quality



2 Add restrooms, showers, café, beach concessions



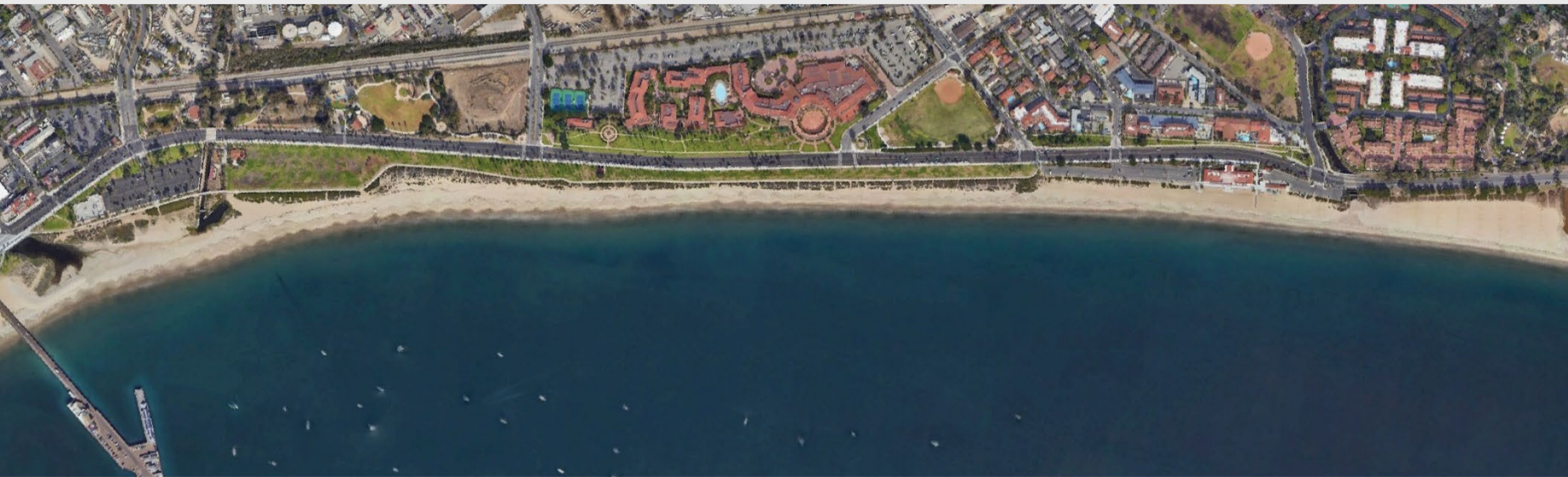
3 Raise walking & bike path with new adjacent park



4 Retain space for small boats, outriggers, tomols, etc

EAST BEACH OPTIONS

A sandy beach & recreation destination



East Beach Potential Core Measures:

Preserve as much sandy beach as possible & protect critical infrastructure



Keep sandy beach and park for as long as possible by moving parks, paths, & facilities inland



Raise & locate walking & biking path to protect Cabrillo Pavilion & inland areas



East Beach Potential Future Options:

Additional, larger projects for wider beach & increased protection



4
Improve per future
Laguna Flood
Resilience
Study



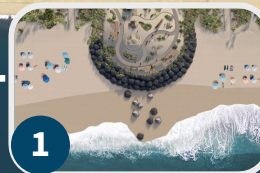
3
Potential
site for
additional
parking



2
Raise path
higher to
reduce flood
risk for higher
sea levels



1
Future Shoreline 2.5' ~ 2075
with nourishment



1
Explore groins,
headlands, and offshore
reefs to widen sandy beach

NEXT STEPS

Next Milestone Steps



Get Involved & Learn More

Visit the Website for Email List & More Info

- SantaBarbaraCA.gov/WaterfrontAdaptation

Take the Survey

- SantaBarbaraCA.gov/WaterfrontSurvey

Contact & Submit Comments

- Timmy Bolton, Senior Climate Adaptation Analyst
(805) 730-0836 or TBolton@SantaBarbaraCA.gov