



# COASTAL RESILIENCE WORKSHOP

HELP SHAPE THE FUTURE OF L.A.'S BEACHES



DEPARTMENT OF  
**BEACHES & HARBORS**  
*Caring for Our Coast* Los Angeles County

Los Angeles County  
Regional Coastal Strategic Adaptation Plan

October 20, 2025

# COUNTYWIDE LAND ACKNOWLEDGMENT

As Adopted by the County of Los Angeles Board of Supervisors on November 1, 2022

The County of Los Angeles recognizes that we occupy land originally and still inhabited and cared for by the Tongva, Tataviam, Serrano, Kizh, and Chumash Peoples. We honor and pay respect to their elders and descendants—past, present, and emerging—as they continue their stewardship of these lands and waters. We acknowledge that settler colonization resulted in land seizure, disease, subjugation, slavery, relocation, broken promises, genocide, and multigenerational trauma.

This acknowledgment demonstrates our responsibility and commitment to truth, healing, and reconciliation and to elevating the stories, culture, and community of the original inhabitants of Los Angeles County. We are grateful to have the opportunity to live and work on these ancestral lands. We are dedicated to growing and sustaining relationships with Native peoples and local tribal governments, including (in no particular order) the

- Fernandeano Tataviam Band of Mission Indians
- Gabrielino Tongva Indians of California Tribal Council
- Gabrieleño /Tongva San Gabriel Band of Mission Indians
- Gabrieleño Band of Mission Indians—Kizh Nation
- San Manuel Band of Mission Indians
- San Fernando Band of Mission Indians

To learn more about the First Peoples of Los Angeles County, please visit the Los Angeles City/County Native American Indian Commission website at [lanaic.lacounty.gov](http://lanaic.lacounty.gov).



# Workshop Agenda



- **LA County Beaches Overview**
- **Economic Importance of Beaches**
  - **Q&A**
- **RCSAP Overview**
- **LA County Coalition Structure**
- **Examples of Projects**
- **Shoreline Monitoring Program**
  - **Q&A**
- **Next Steps**

# Introductions



1. LACDBH Team
2. Consultant Team
3. Coalition Member Agencies

# Coalition Member Agencies



Emiko Innes  
Project Manager  
LA County Dept. of Beaches and Harbors



Aaron Ordower  
Environmental Deputy  
LA County 3<sup>rd</sup> District Linsey Horvath's Office



Daniel Pankau  
Environmental Programs Manager  
City of El Segundo



Britny Coker-Moen  
Environmental Programs Administrator  
City of Manhattan Beach



Geraldine Trivedi  
City Engineer  
City of Redondo Beach



James Newland  
Strategic Planning & Recreation Services Division  
Planning Chief  
California State Parks



Jennifer LaMarque  
Torrance Field Deputy  
LA County 4<sup>th</sup> District Janice Hahn's Office



Jessalyn Waldron  
Constituent Services Deputy  
LA County 2<sup>nd</sup> District Holly Mitchell's Office



Doug Krauss  
Environmental Programs Manager  
City of Hermosa Beach



Jacob Burman  
Senior Advisor  
City of LA Council District 11



Steve Baule  
Executive Officer  
City of LA Mayor's Office



Austin Anderson  
Interim Senior Management  
Analyst  
City of Malibu



Shannon Parry  
Chief Sustainability Officer  
City of Santa Monica



Oscar Martinez  
Planning Manager  
City of Torrance

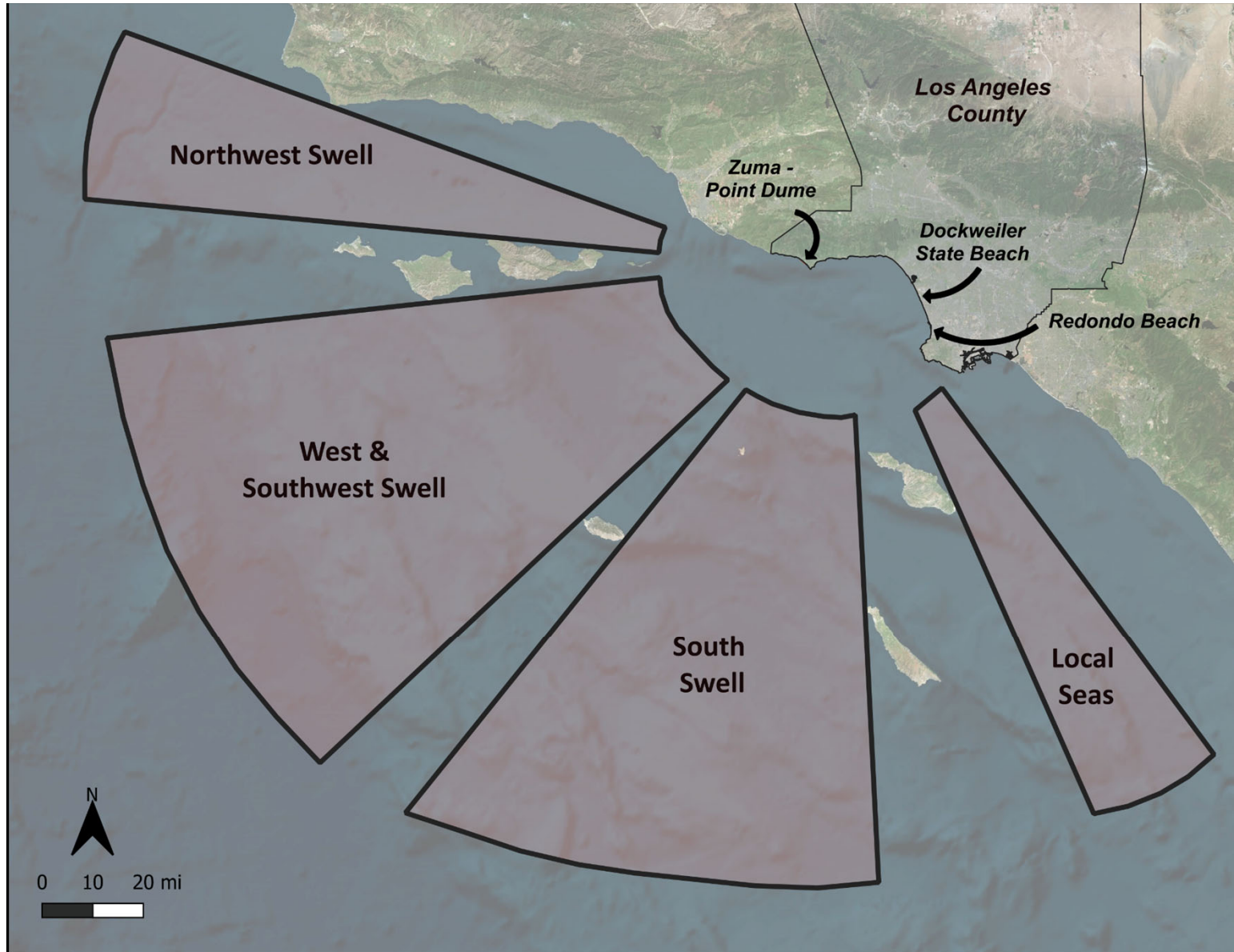
# LA County Beaches Overview

- ❖ Coastal Processes 101
- ❖ History
- ❖ Current Conditions



# Coastal Processes

- Waves
- Water Levels
- Sand
  - Sources
  - Sinks
  - Transport



**Santa Barbara  
Littoral Cell**

**Los Angeles County**

**Malibu**

**Santa Monica**

**Hueneme and  
Mugu Canyons**

**Zuma  
Littoral Cell**

**Dume  
Canyon**

**Santa Monica  
Littoral Cell**

**Redondo  
Canyon**

**Redondo  
Beach**

**San Pedro  
Littoral Cell**

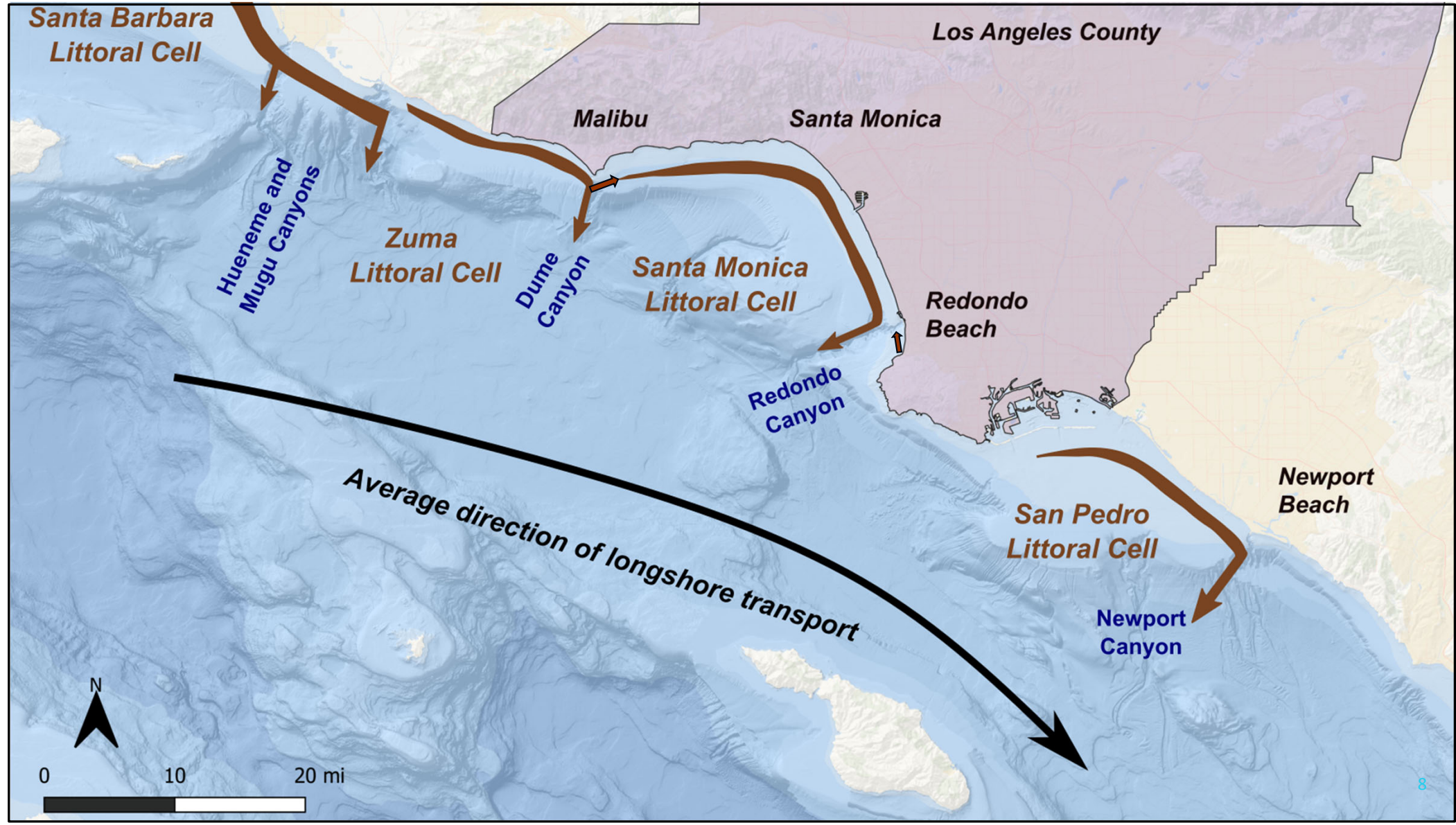
**Newport  
Beach**

**Newport  
Canyon**

**Average direction of longshore transport**

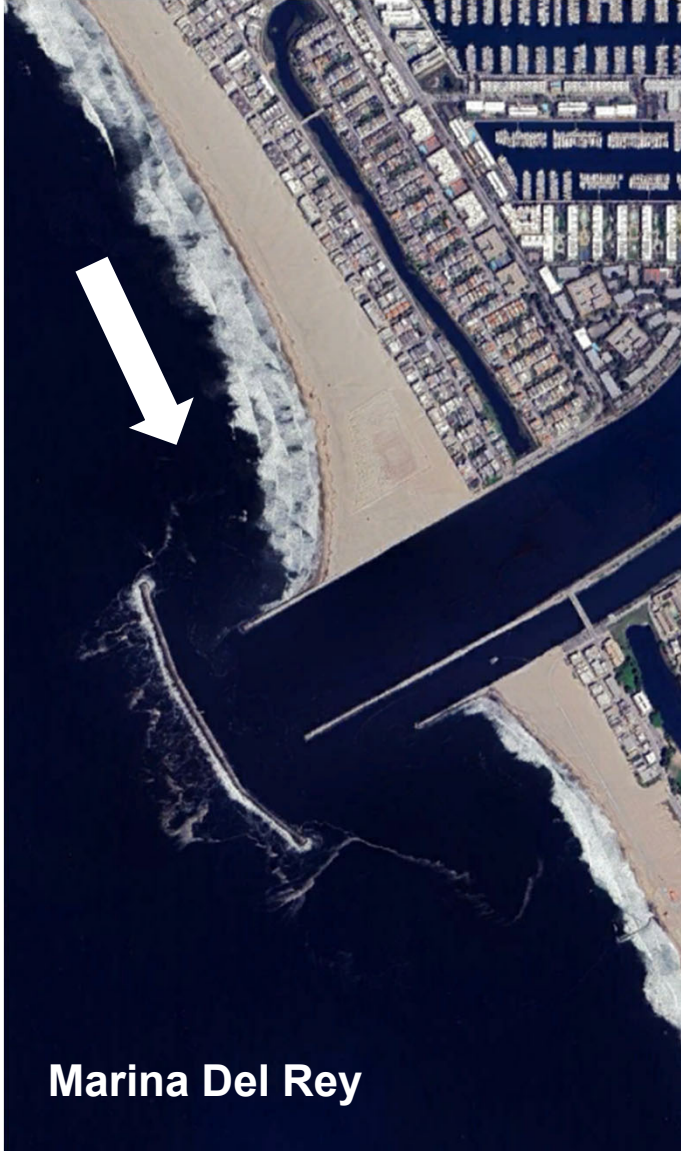


0 10 20 mi





**Will Rogers State Beach**



**Marina Del Rey**



**Redondo Beach**

# Early LA County Beaches

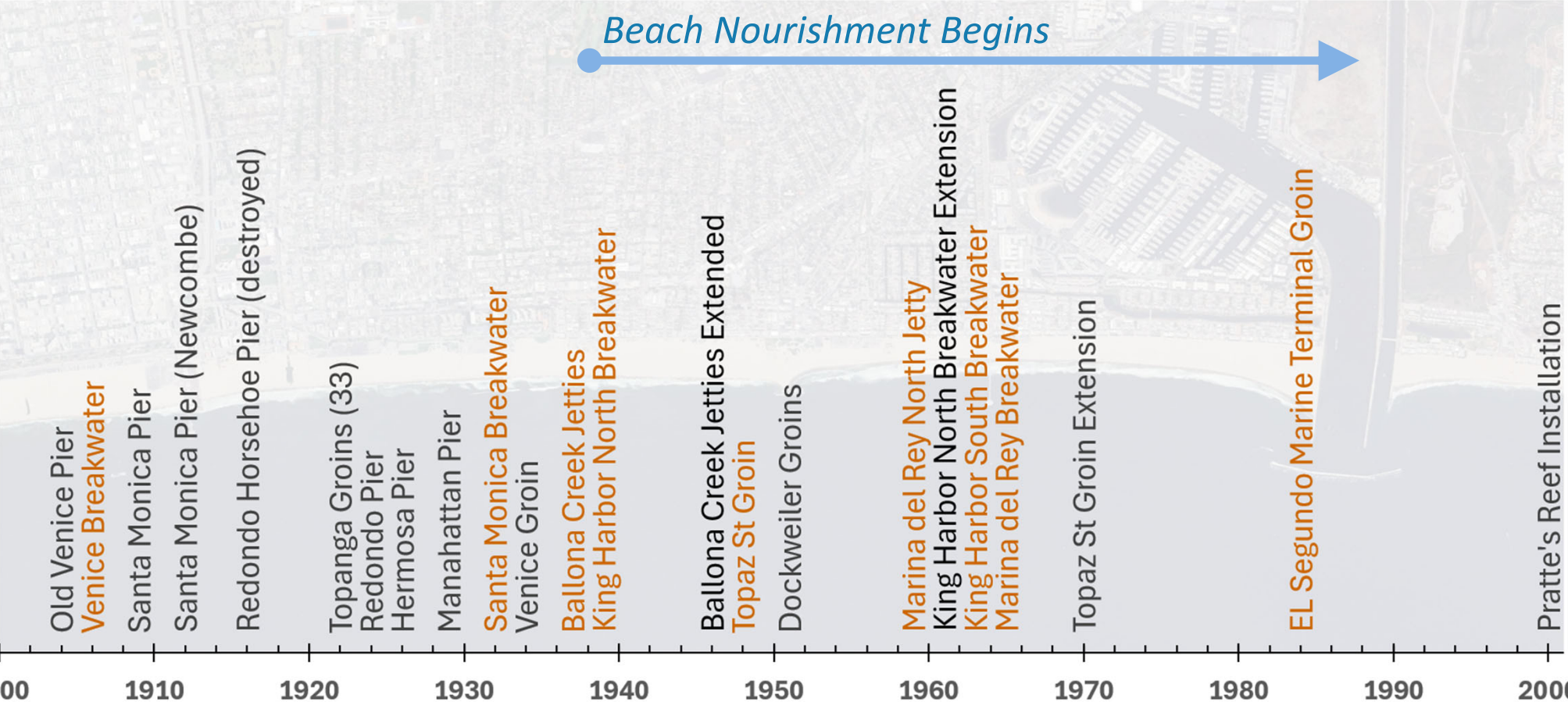


Malibu near Big Rock (ca. 1910) Pepperdine University Libraries



Santa Monica (ca. 1887) Water and Power Associates

# Coastal Structures



# Coastal Structures



Santa Monica Breakwater (ca. 1937) Water and Power Associates



King Harbor North Breakwater (ca. 1939) Living New Deal [12](#)

# Coastal Structures



Venice Breakwater (ca. 1933) USC Library

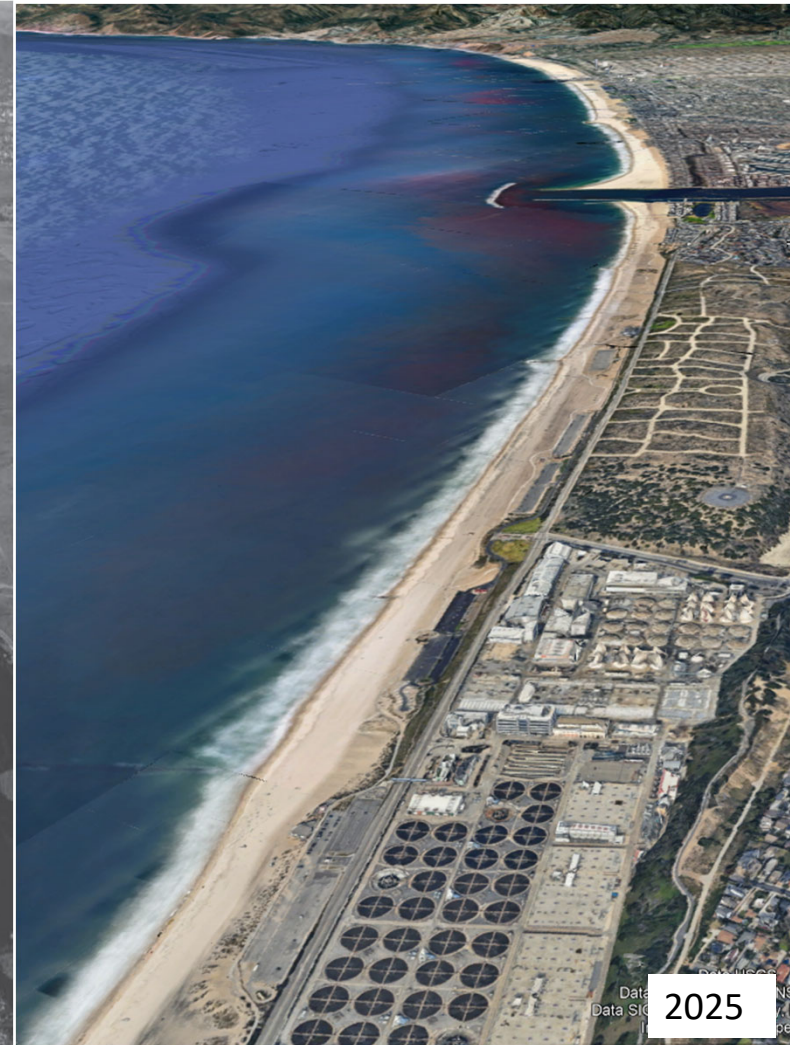


Marina del Rey (ca. 1964) Marina del Rey Historical Society

# Beach Nourishment

- 1938-47 Hyperion Construction  
**15.9 million cy**
- 1947 Redondo Beach (Onshore)  
**100k cy**
- 1956 Scattergood Construction  
**2.4 million cy**
- 1960-63 Marina del Rey Construction  
**10.1 million cy**
- 1968-69 Redondo Beach (Offshore)  
**1.4 million cy**
- 1984 El Segundo MT Groin  
**620k cy**
- 1988-89 Hyperion Expansion  
**1.1 million cy**

**~32 Million**  
Cubic Yards of Sand



# Outcome



## ➤ **Compartmentalization of shoreline**

- Reduced alongshore transport rates
- Reduced losses to submarine canyon

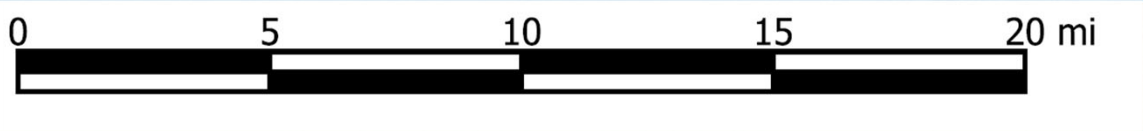
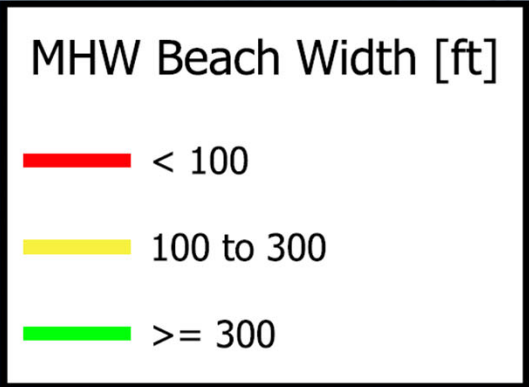
## ➤ **32 million cy of sand added to beaches**

- ~ 95% placed before 1970
- ~ 70% was sand of opportunity

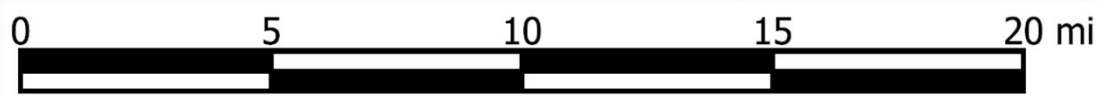
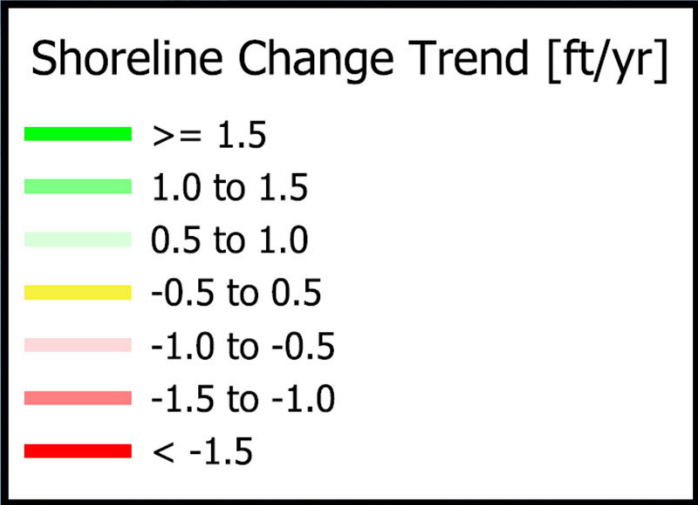
## ➤ **Combined effect of SAND + STRUCTURES**

- Sustained beach width gains in nourished area: 150–500 ft
- Wide, stable beaches in formerly sand starved region
- World class beaches and economic driver

# Recent Beach Widths (2016 LiDAR)



# Shoreline Change Trends (1983-2021)



Source: CoastSAT

# Economic Importance of Beaches



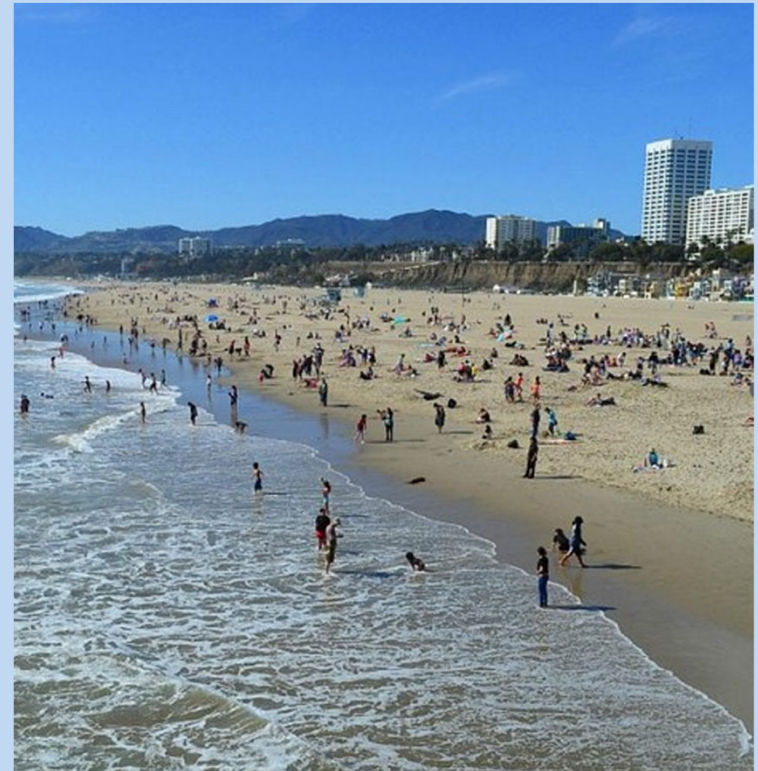
# How much is a day at the beach worth?



- **Over 100 million annual visits** and **tens of billions** in direct and indirect spending.
- Economic resilience depends on **physical resilience**.
- As beaches narrow, local economies lose both visitors and revenue.

# How much is a day at the beach worth?

- Beaches are **FREE** in California
- Economists estimate **Willingness To Pay (WTP)**
  - Travel Cost (Revealed Preference)
  - Contingent Valuation (State Preference)
- Currently **~\$65 per day**
- **NON-MARKET VALUE**



# Economic Benefits of Beaches



**Tourism Revenues:** Visitor spending on food, lodging, fuel, and retail, which generates sales and transient occupancy taxes



**Community Desirability & Property Value:** Coastal proximity often boosts demand for housing and property prices (hedonic value).



**Recreation:** Beaches provide affordable spaces for leisure, sports, and gatherings (non-market value)



**Storm Buffering:** Beaches and dunes act as natural buffers, reducing storm damage and safeguarding infrastructure.



**Public Health:** Coastal access supports physical activity, stress relief, and mental well-being for residents and visitors.



**Ecological Value:** Unique habitats for animal and plant species (non-market value)



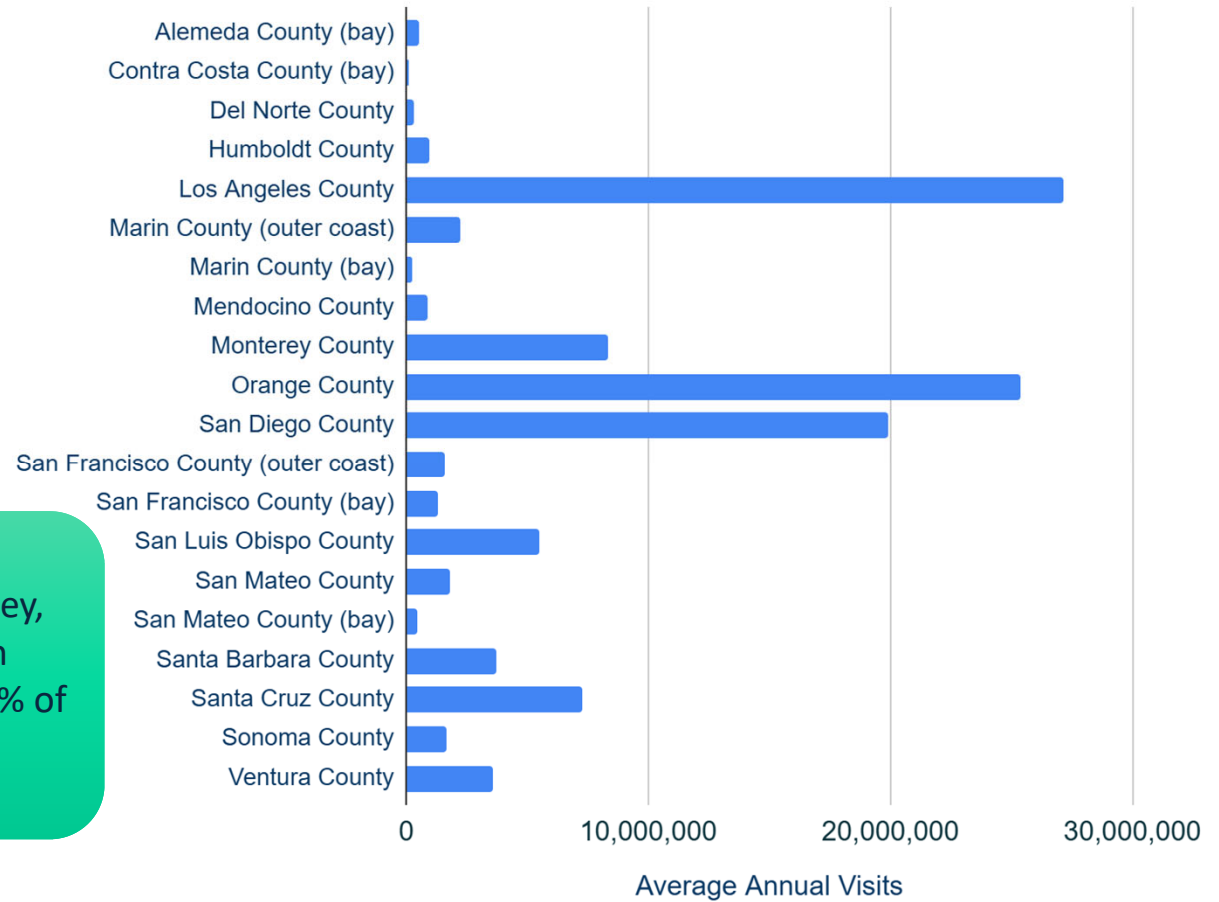
**Existence:** Cultural value placed on the existence of the beach, without necessarily experiencing it



**Employment:** Supports local employment opportunities

# Average Annual Visits to the Beach by County

LA, Orange, San Diego, Monterey, and Santa Cruz county beach visitation accounts for nearly 80% of the statewide visits



# LA County Beach Economics Overview

Annual Estimates Per County	Los Angeles County, California
Visits	~ 27 million visits per year
Total Beach Spending	~\$2 Billion per year
Local Sales Tax	~\$50 Million per year
Transient Occupancy Tax	~\$50 Million per year

# The Role of Economics

Uses of economic valuation in management, capital investment, and legislative decisions

- Justify investments
- Determine the true, data-informed value of a project
- Guide decisions for maximum public benefit
- Help decision-makers understand tradeoffs

# Economic Analysis for RCSAP

Evaluating the value of our beaches requires understanding:

**Key Question: What are the economic impacts of beach loss in LA County?**



**Attendance**



**Towel Space**



**Access**

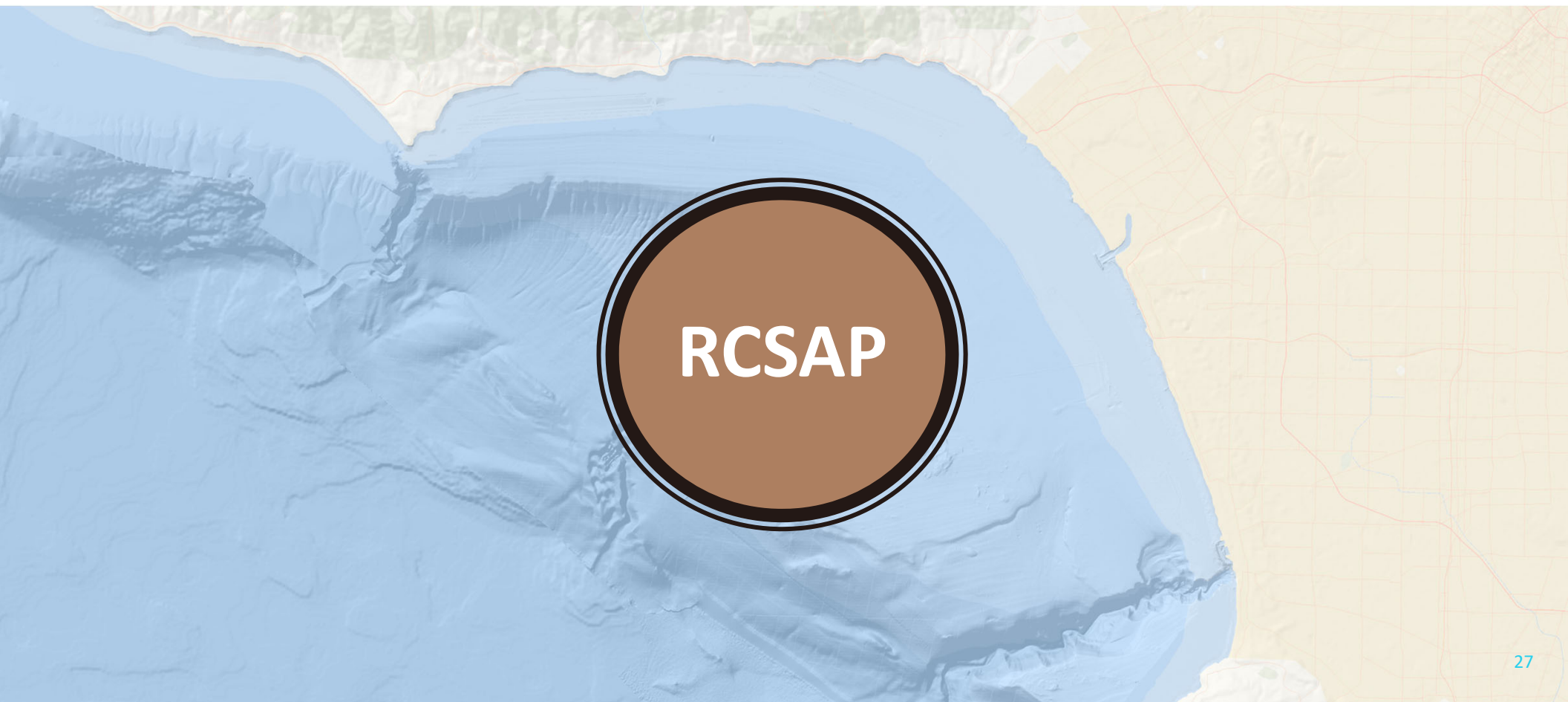


**Amenities**



# Questions

# LA County Regional Coastal Strategic Adaption Plan



# LA County Regional Coastal Strategic Adaption Plan (RCSAP)

*Regional shoreline management and adaptation plan for the LA County coastline between Leo Carrillo State Beach and Torrance Beach*

## **Project Goals and Objectives**

1. Develop a Regional Coastal Coalition
  - Conduct regional planning and decision-making
  - Coordinate shoreline management activities
2. Conduct Shoreline Monitoring
  - Establish baseline for project prioritization and performance evaluation
3. Prepare the RCSAP
  - Identify and prioritize projects
  - Funding strategy

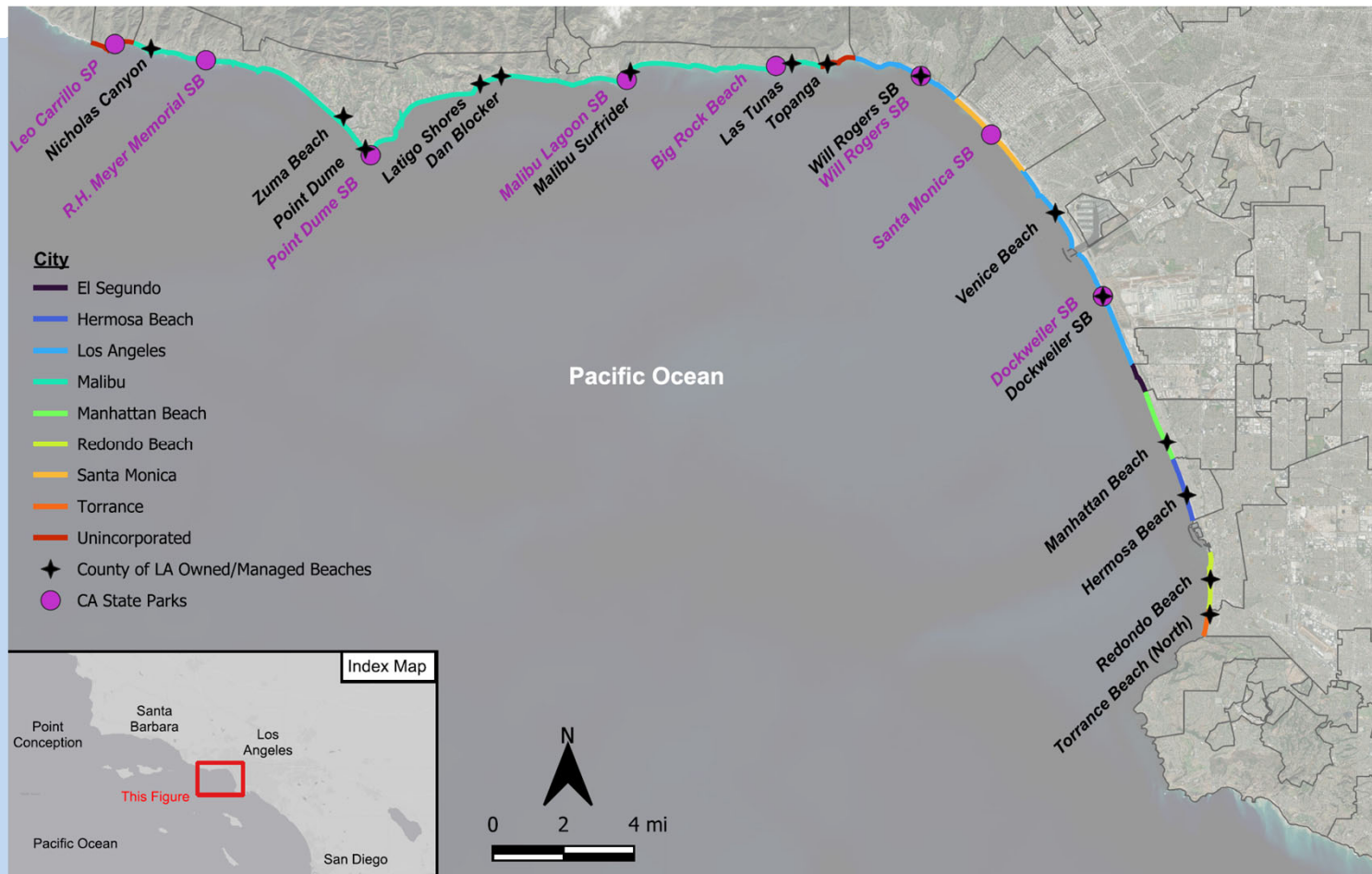


Funded by OPC SB-1 Grant

# Project Schedule (2025 – 2027)



# LA Coastal Coalition



## Why Form a Coastal Coalition?

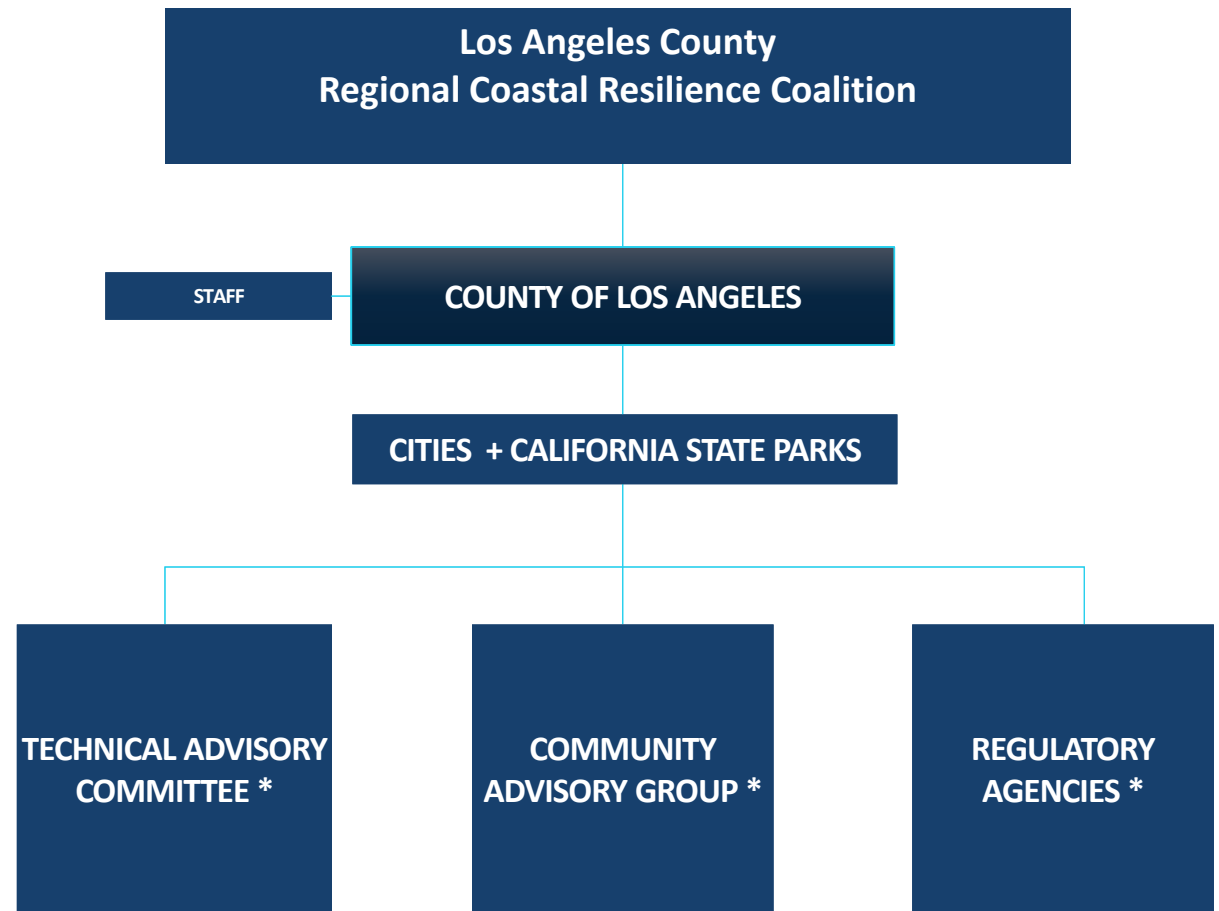
- ➔ Collaboration encourages regional coastal management practices
- ➔ Granting agencies support regional adaptation planning
- ➔ Creates efficiencies & economies of scale for coastal projects
- ➔ Promotes regional collaboration instead of competition

## Benefits of a Coastal Coalition

- ✓ Share costs of planning, permitting, construction, and project monitoring
- ✓ Single CEQA / NEPA compliance documents for regional projects
- ✓ Obtain a single permit instead of multiple permits from agencies
- ✓ Key Outcomes: Implements a collective vision for the regions. Saves time & money!

# Preferred Coalition Structure

## County-Led



\* Non-Voting Members

# Join the Coalition!



# Coalition Name Ideas

- LA County Coastal Resilience Coalition
- LA Regional Sand Coalition
- LA Regional Coastal Coalition
- Los Angeles Coalition for Shoreline Protection
- Shoreline & Sand Coalition LA
- Save our Sand
- Got Sand?
- LA Shoreline & Sand Coalition
- LA BEACH ALLIANCES
- LA Coastal Coalition
- LA Beach's Coastal Alliance
- LA Coastal Union
- Coalition of LA Beaches
- Los Angeles Beaches Bloc
- LA Alliance of Beaches
- Community of LA Beach's Coalition
- Beach Coalition of Los Angeles



# Potential Regional Projects



# Projects in Development and Current Practices

## Beach Nourishment

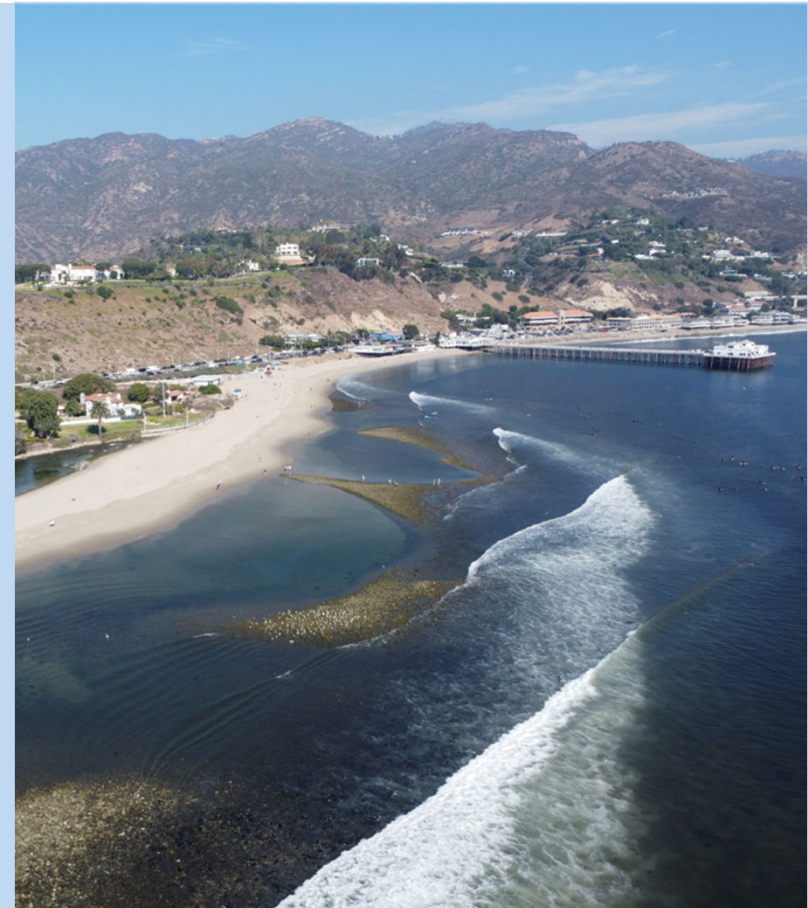
- **SCOUP**  
Sand Compatibility and Oppportunistic Use Program.
- **Offshore Sand Source Investigation**

## Living Shoreline Demonstration Projects

- **Zuma Beach and Point Dume**
- **Dockweiler State Beach**
- **Redondo Beach**

## Current Practices

- **Dune Restoration**
- **Winter Berms**
- **MdR Bypassing**



# Living Shorelines – Recreating Naturally Resilient Coastlines

## Beach Nourishment

1. Import sand to **widen beaches**
  - Expands recreation space (“towel space”)
  - Makes room for dunes on narrow beaches

## Dune Restoration/Enhancement

1. All these beaches supported dunes **historically**
2. Restored dunes
  - Provide habitat
  - Store sand
  - Trap blowing sand
3. Restored dunes are **self-repairing**
  - Dunes rebuild naturally after large storms
  - Minimal annual and long-term maintenance

## **Multiple Benefits:**

- Human recreation
- Habitat
- Flood protection
- Economic revenue

## Potential Regional Projects

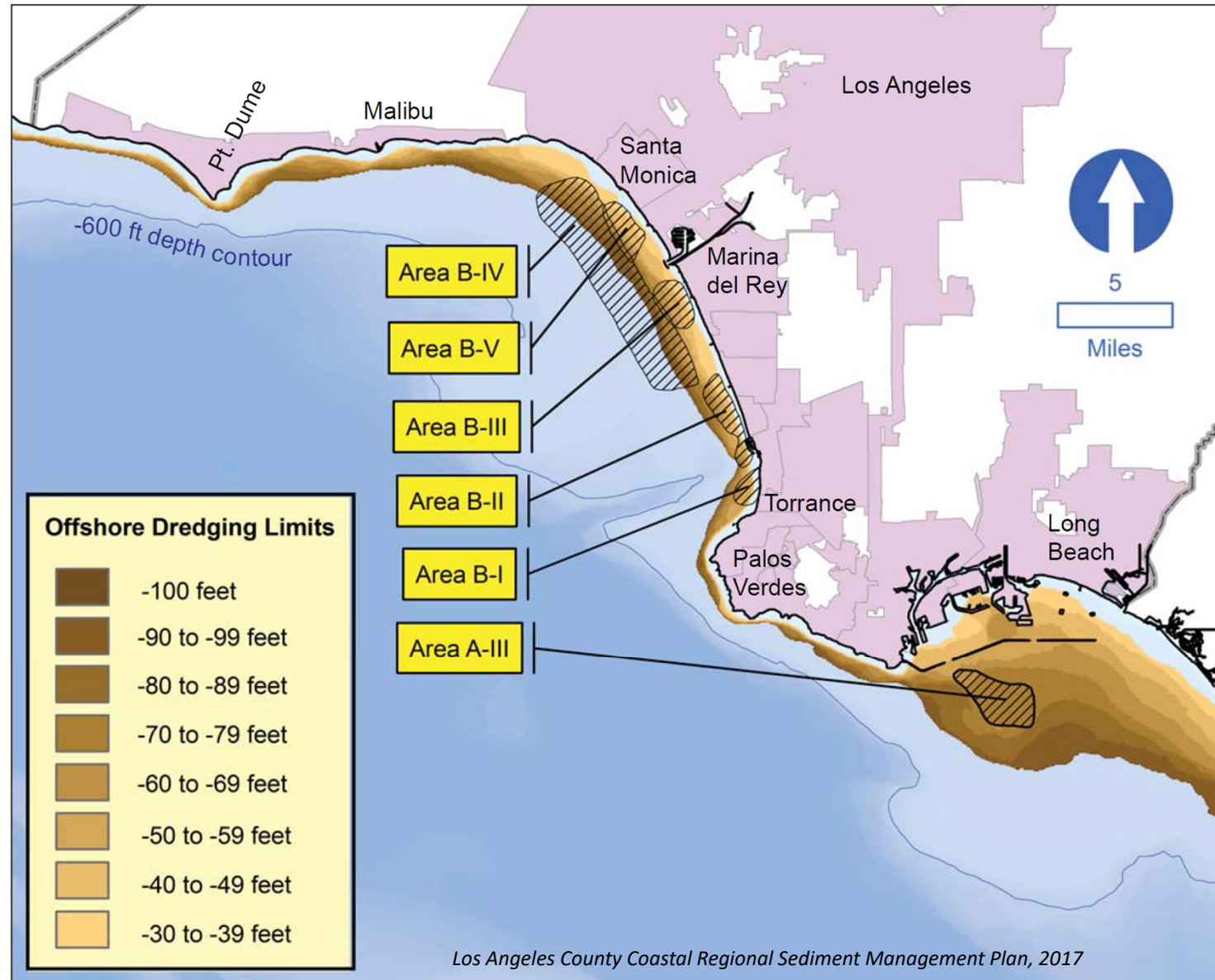
# Dune Restoration/Enhancement



*artist rendition*

## Potential Regional Projects Offshore Sand Source Investigation

- Document physical and chemical characteristics
- Estimate available volume
- Seek set-aside / lease for future projects



# Potential Regional Projects

## Beach Nourishment



City of San Clemente

# Potential Regional Projects Expanded SCOUP

**Sand Compatibility and Opportunistic Use Program**  
Pre-approved for small beach nourishment if sand becomes available





*Peninsula Beach, Long Beach*

Potential Regional Projects

## Managed Sand Bypassing/Backpassing

- Move sand from wide beaches to narrow beaches
- Move sand past/around littoral barriers
- Move sand trapped in harbors strategically

Potential Regional Projects

# Managed Sand Bypassing at Mugu Canyon

- ❖ Sand engine concept
- ❖ Dredge from littoral Zone
- ❖ Place on downcoast beaches
- ❖ Create sand trap
- ❖ Repeat



## Potential Regional Projects

# Sand Retention Structure Inventory/Evaluation

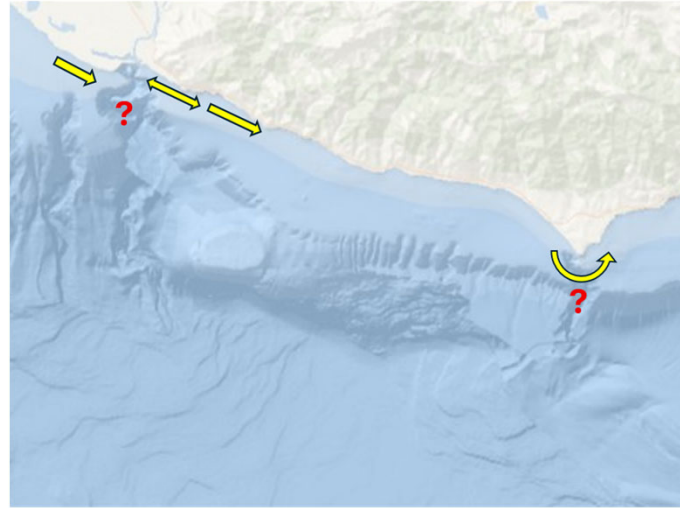


# Potential Regional Projects

## Coastal Studies

(Data Gaps)

- ❖ Sediment Transport
- ❖ Shoreline Monitoring
- ❖ Socio-Economic
- ❖ Structure Inventory/Assess.
- ❖ Surfing Resources
- ❖ Habitat Inventory



# Regional Shoreline Monitoring Program



# Monitoring Program Objectives



- Measure Changes in Shorezone
  - Builds on Previous Efforts
  - Fall and Spring Beach Profile Surveys
- Evaluate and Plan Shoreline Projects
  - County Coastal Resilience Projects
  - SCOUP
  - Regional Beach Nourishment
  - Local Efforts
- Document Impact of Natural Events
  - El Niño
  - SLR

# Shoreline Monitoring in Southern California

## **SANDAG**

(1996-present)

## **City of San Clemente**

(2001-2007; 2022-present)

## **LA County**

- Various: 1935, 1946, 1953
- LADBH: 3 surveys from 1989-1990 (223 sites)
- USACE CCSTWS: 6 surveys 2002-2005 (up to 437 sites)
- **RCSAP: Fall 2025 and Spring 2026**

## **Newport Beach**

(2006-present)

## **Goleta**

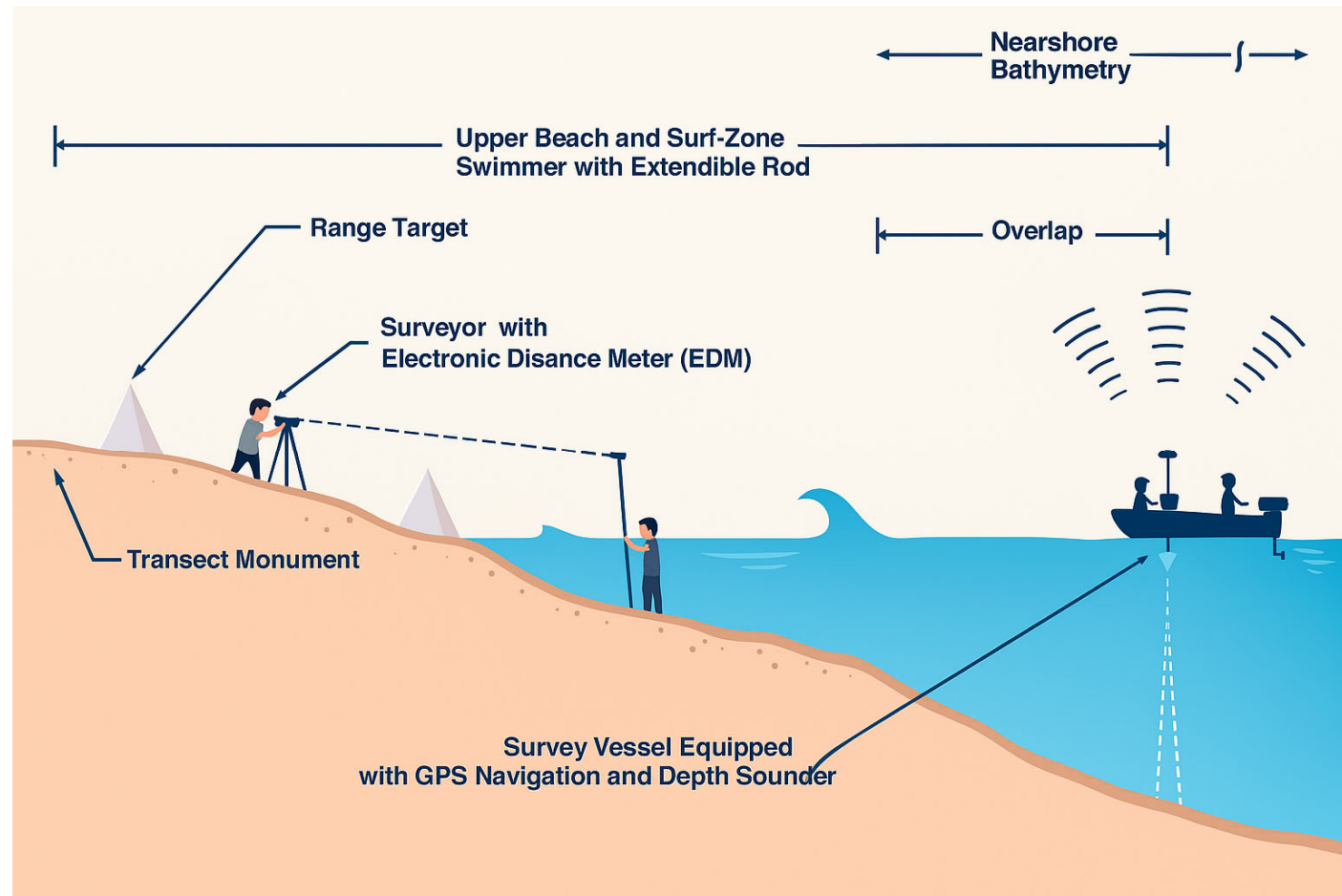
(2000-present)

## **Others**

- USACE Orange County
- BEACON
- Broad Beach



# Beach Profile Surveys



# LA County Shoreline Monitoring Program

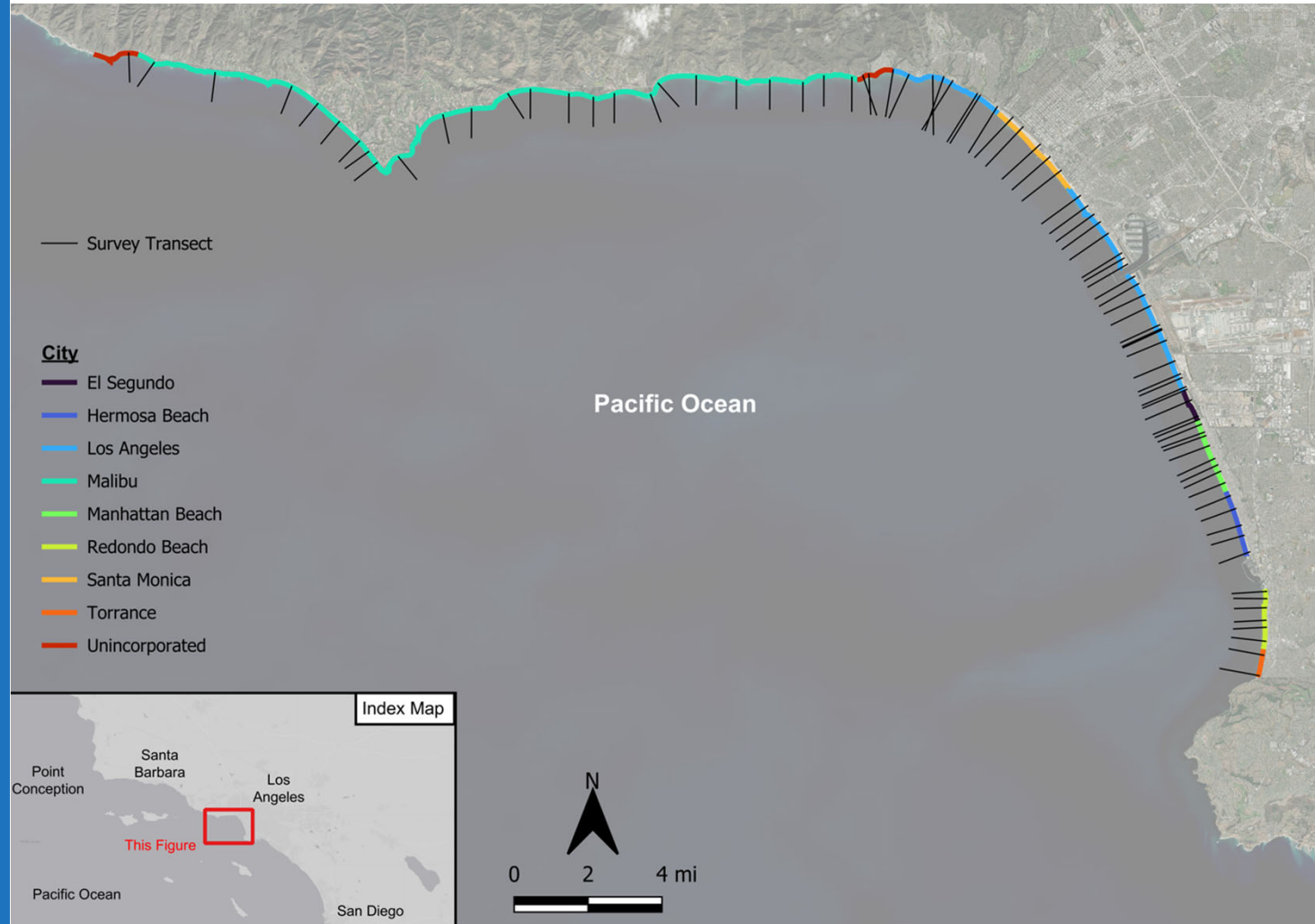


- Balance budget and science to develop sustainable program
- Occupy historical beach profile transects
- 85 Beach Profile Transects
  - Maximize USACE “core 81” sites
  - Provide Coverage for:
    - SCOUP
    - Planned Coastal Resilience Projects
    - Current County Projects
    - County Beach Representation
    - Stakeholder Needs
- First survey – September 2025

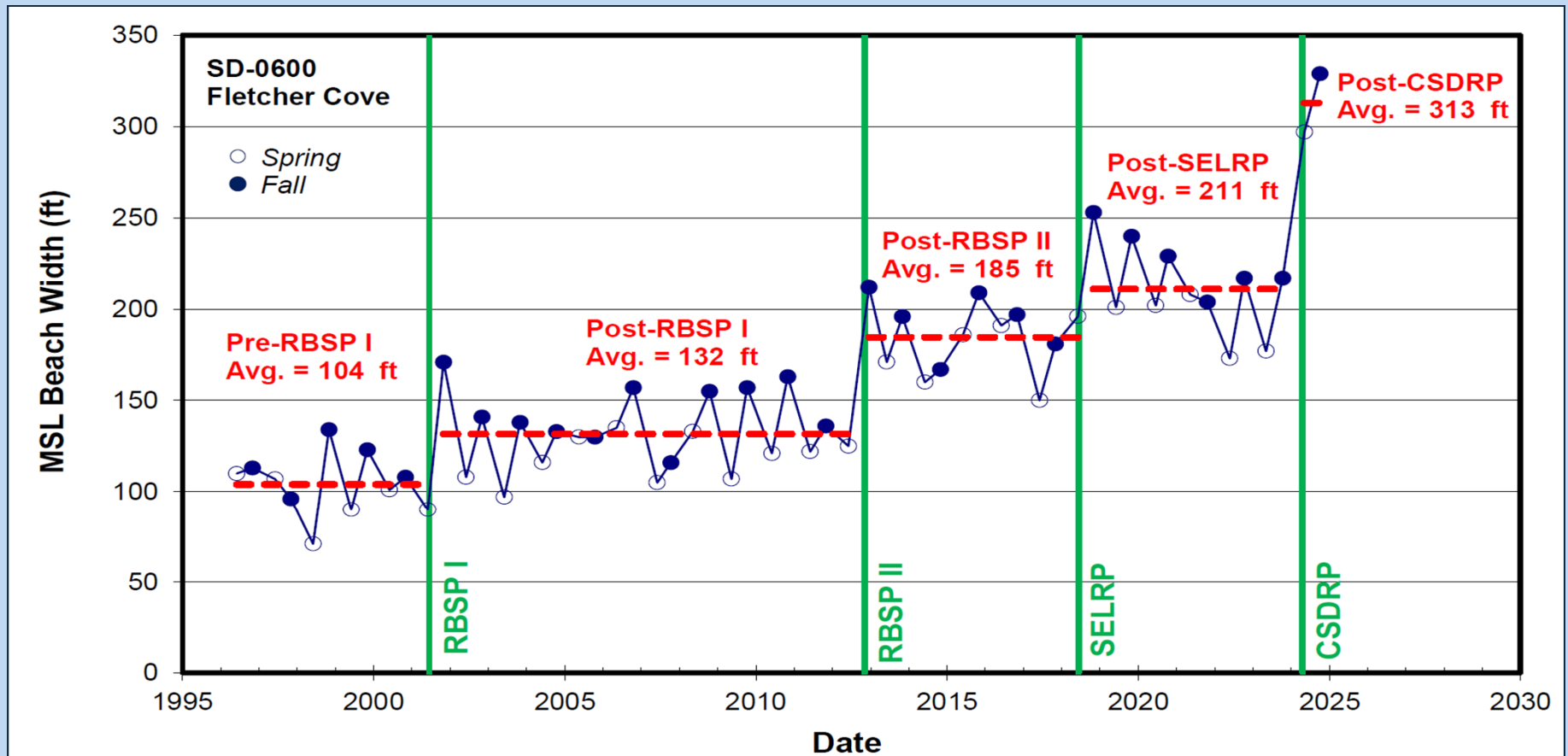




# Beach Profile Transect Locations



# Using the Shoreline Data

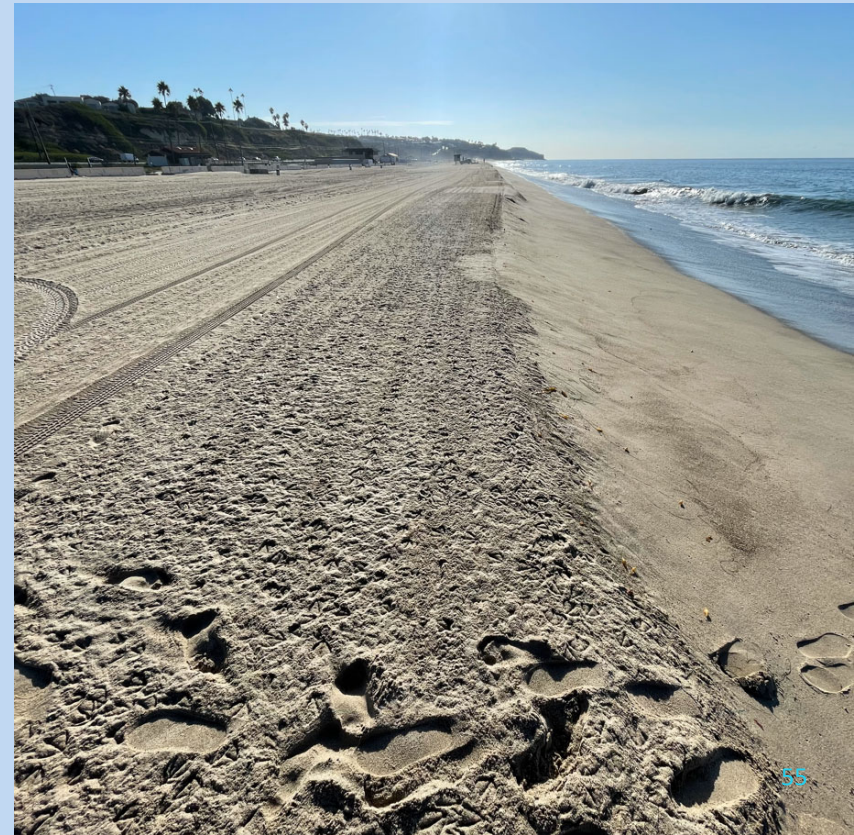




# Questions

# Next Steps

- Post-Workshop Survey
- Formalize Coalition
- Continue Shoreline Monitoring
- Commence RCSAP Preparation
- Next Workshop: Spring 2026





# Thank you for Attending Coastal Resilience Workshop

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