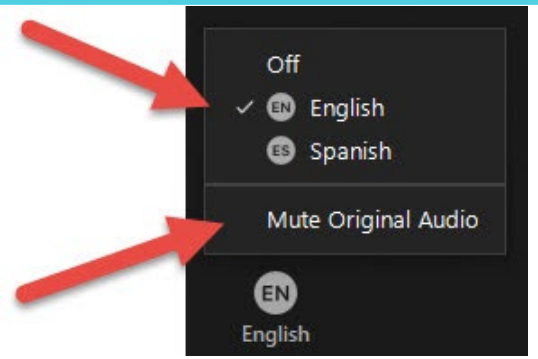
Ventura County Resource Management Agency
Planning Division

VC RESILIENT COASTAL ADAPTATION PROJECT

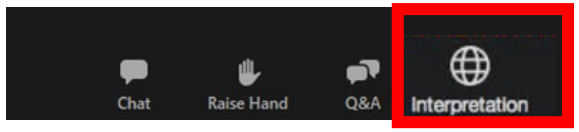
Sea Level Rise Community Workshop, June 10, 2024

For Spanish Interpretation
Para Interpretación en Español



For Desktop users

1. Click **Interpretation**
2. Select the language
3. (Optional) Click **Mute Original Audio,** to only hear Spanish translation



For smart phone users

1. Tap **More**
2. Tap **Language Interpretation**
3. Select the language
4. (Optional) Tap the toggle to **Mute Original Audio**

Para usuarios de la Aplicación de Escritorio

1. *Haga clic en **Interpretación***
2. *Seleccione el idioma*
3. *Opcional) Haga clic en **Mute Original Audio**(Silenciar Audio Original) para escuchar solo la traducción al español*

Para usuarios de teléfonos inteligentes

1. *Presione **More** (Más)*
2. *Presione **Language Interpretation** (Interpretación de Idiomas)*
3. *Seleccione el idioma*
4. *(Opcional) Presione el conmutador para **Silenciar Audio Original***

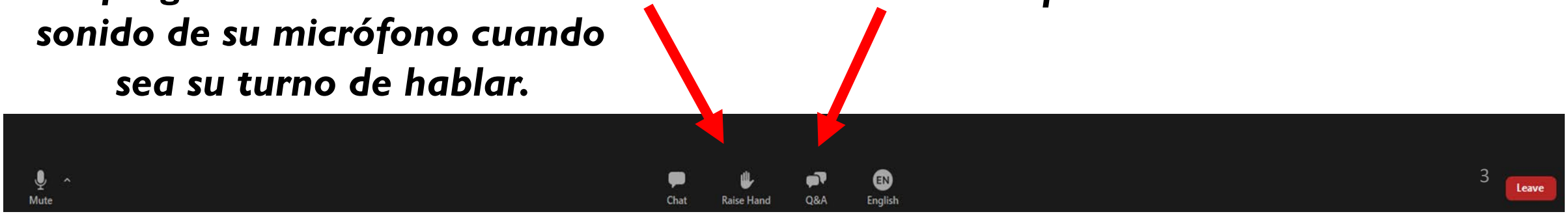
Comments/Questions on Desktop
Comentarios / Preguntas en Computadora de Escritorio

Use "Raise Hand" button to signal your interest to make a comment or ask a question. You will be unmuted when it is your turn to speak.

Utilice el botón "Levantar la Mano" para indicar que desea hacer un comentario o una pregunta. Se activará el sonido de su micrófono cuando sea su turno de hablar.

Use "Q&A" button to type in your question. Your question will be presented at the end of the presentation.

Utilice el botón "Preguntas y Respuestas" para escribir su pregunta. Su pregunta se presentará al final de la presentación.



For Spanish Interpretation
Para Interpretación en Español

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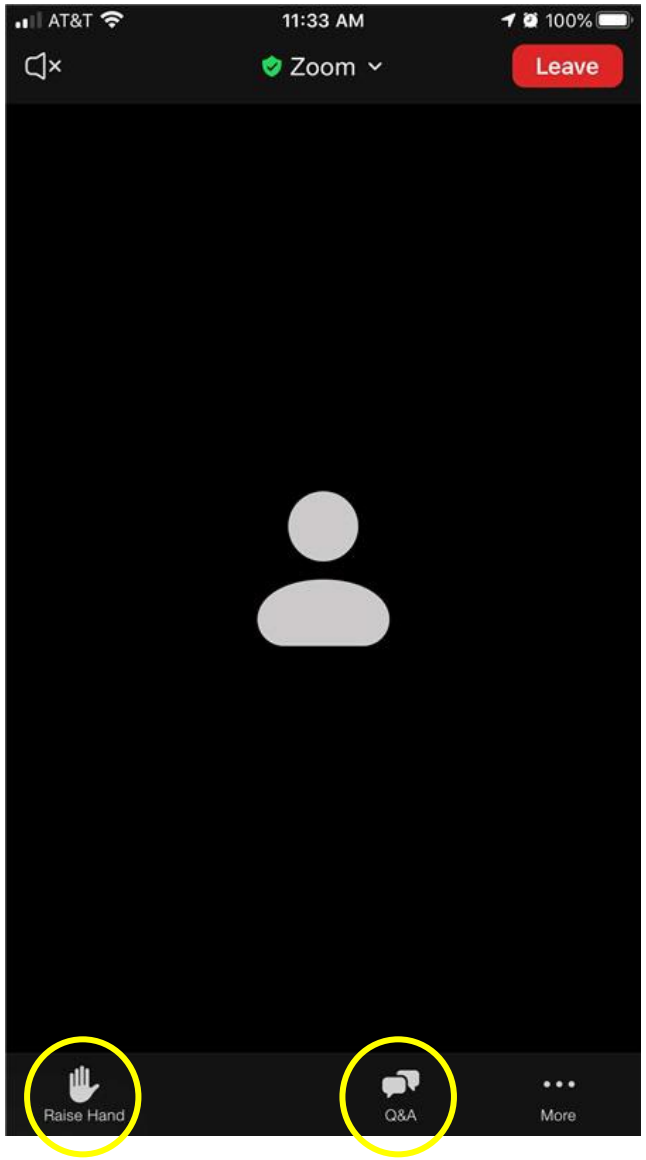

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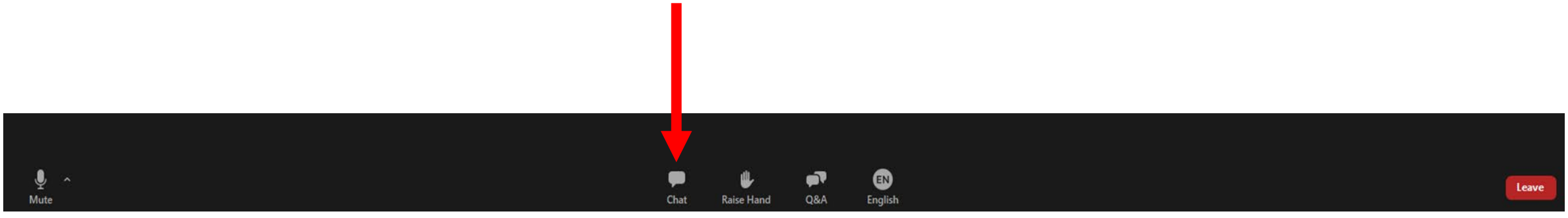
Technical Issues During the Meeting
Asuntos Técnicos Durante la Reunión

Having Issues With Zoom During The Meeting?

Email your comment or question to luz.juachon@ventura.org

¿Tiene Problemas con Zoom Durante la Reunión?

Envíe su comentario o pregunta por correo electrónico a gabe.ramirez@ventura.org



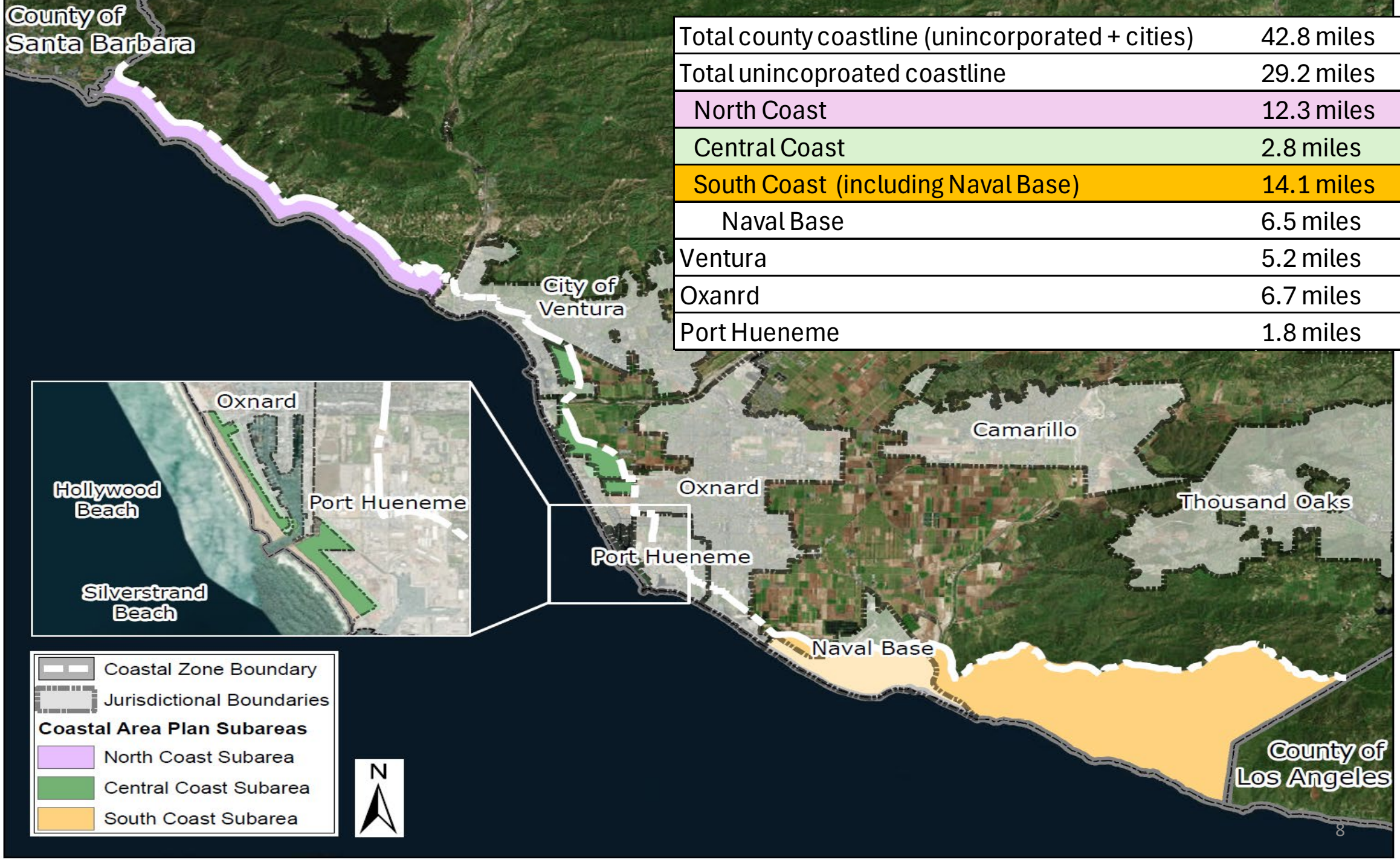
Workshop Format

- Project Overview (15 min)
  - Vulnerabilities/Hazard Areas
- Proposed Amendments (15 min)
- Visual Simulations (5 min)
- Discussion and Q & A (30 min)

Why Plan for Sea Level Rise Now?

COUNTY of VENTURA
Resource Management Agency

- Preparation now may be less costly than waiting
- Existing coastal hazards already pose a threat
- Consistency in permitting process
- Support long-term coastal resilience



Total county coastline (unincorporated + cities)	42.8 miles
Total unincoproated coastline	29.2 miles
North Coast	12.3 miles
Central Coast	2.8 miles
South Coast (including Naval Base)	14.1 miles
Naval Base	6.5 miles
Ventura	5.2 miles
Oxanrd	6.7 miles
Port Hueneme	1.8 miles

What We've Done: Phase I

Quantified and Qualified General Vulnerabilities:

- Vulnerability Assessment—GIS Based
- Adaptation Report — Qualitative Summary

Preliminary Draft Policies for:

- Disclosure of Hazards
- Siting and Design of New Development
- Coastal Hazard Reports for New Development
- Neighborhood Scale Approaches

What We've Done: Phase II

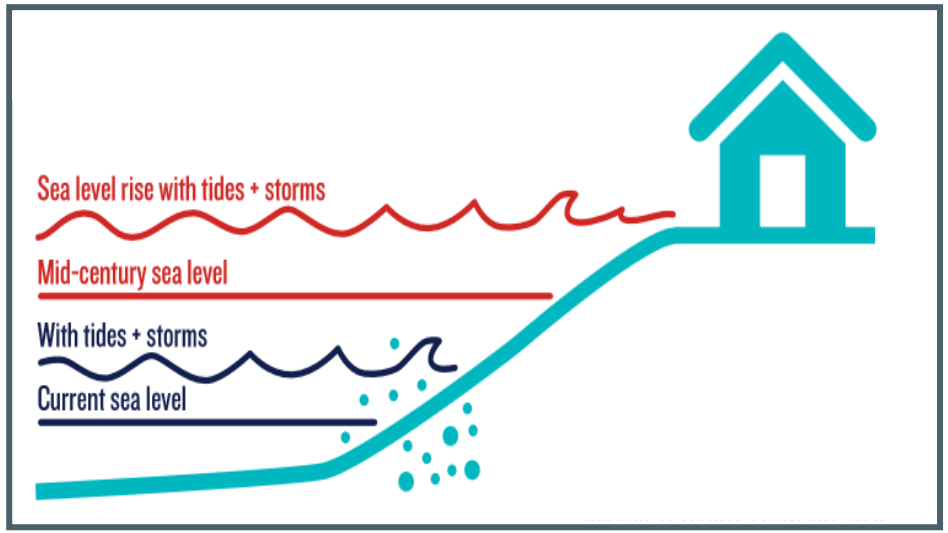
Education and Public Outreach:

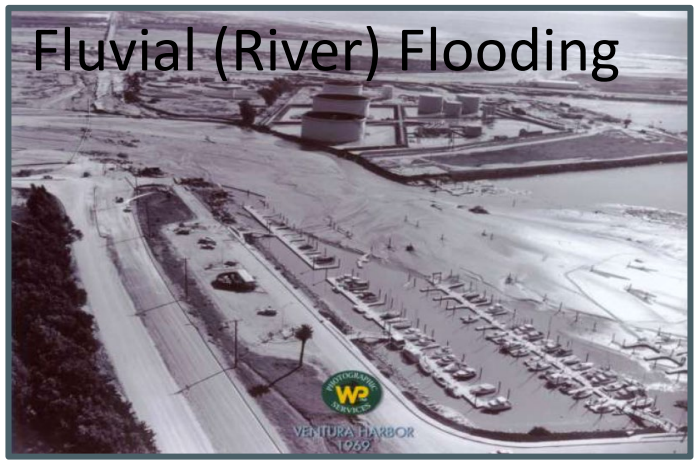
- Meetings with community groups
- Webpage update, flyers, and public survey (bilingual)
- Interagency Working Group

Draft Policies and Zoning Amendments for:

- Same topics as Phase I
- Focus on seawalls and building elevations

What is Sea Level Rise?

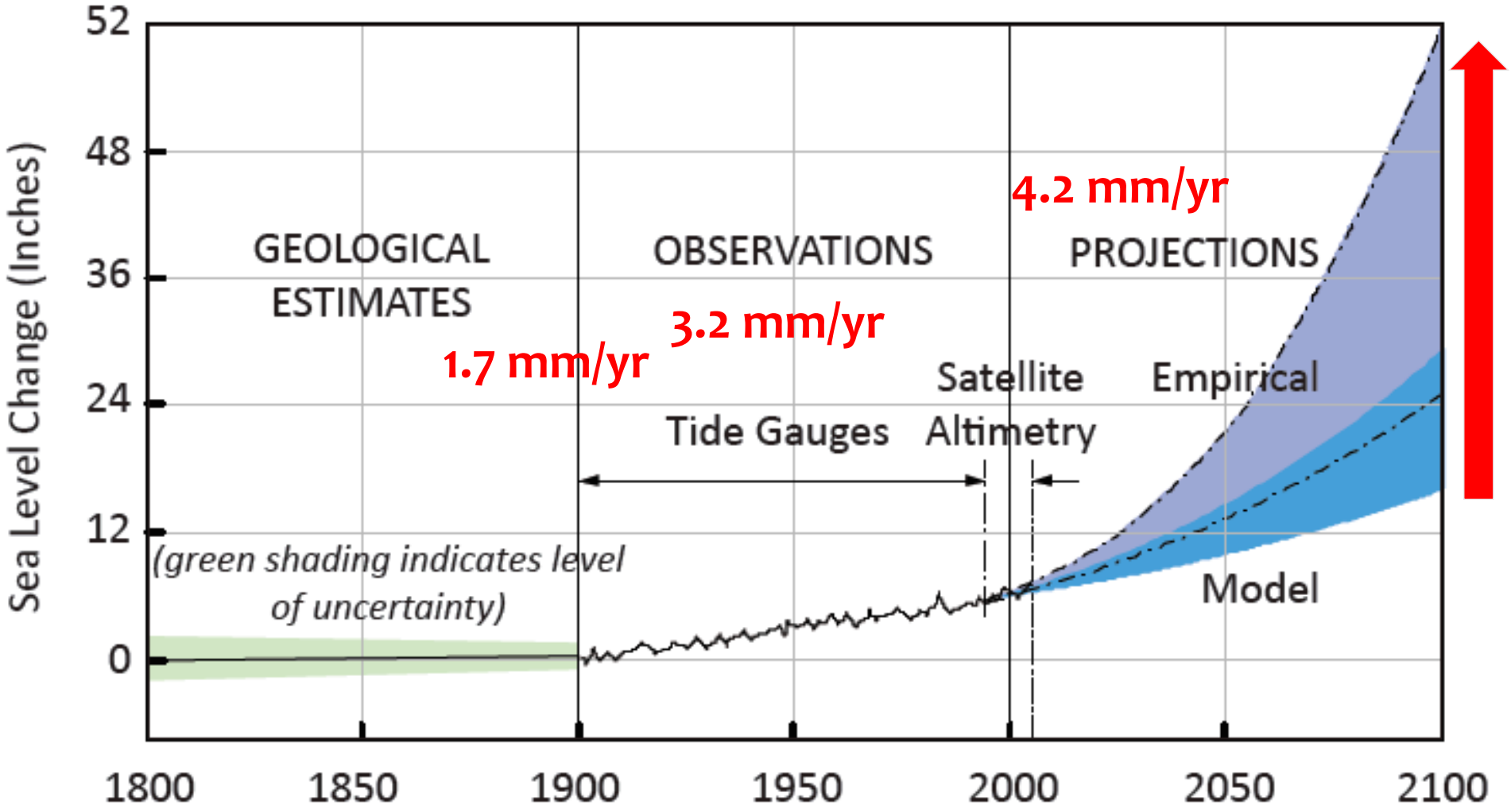




Coastal Hazards - Combined

Sea Level Rise Projections

The rate of global sea-level rise was measured from tide gauges historically and satellites since 1993



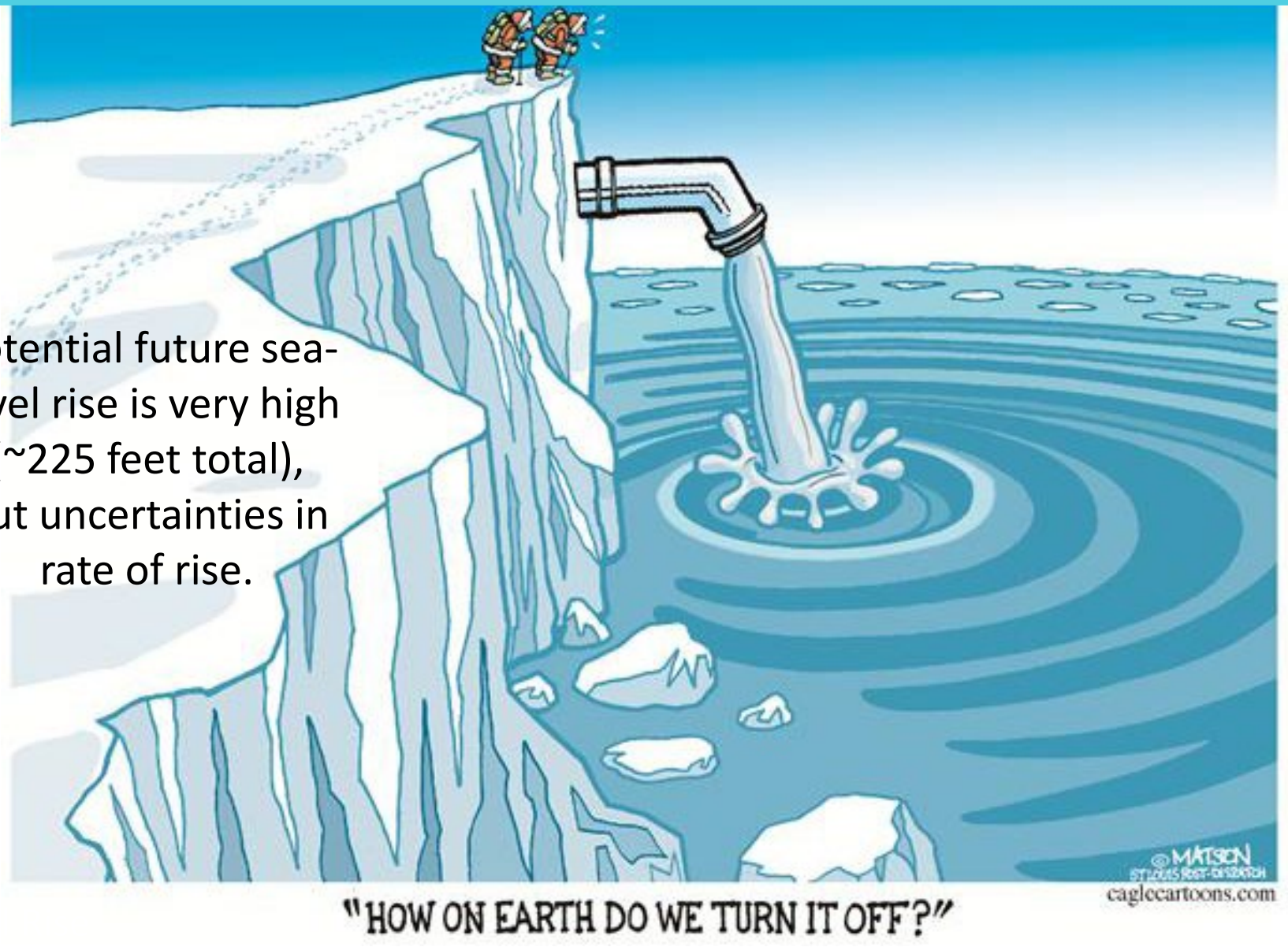
Glacier Melt

Greenland ~22 feet of Sea Level Rise

Antarctica ~200 feet of Sea Level

Mountain Glaciers ~ 2 feet of Sea L

Potential future sea-level rise is very high (~225 feet total), but uncertainties in rate of rise.

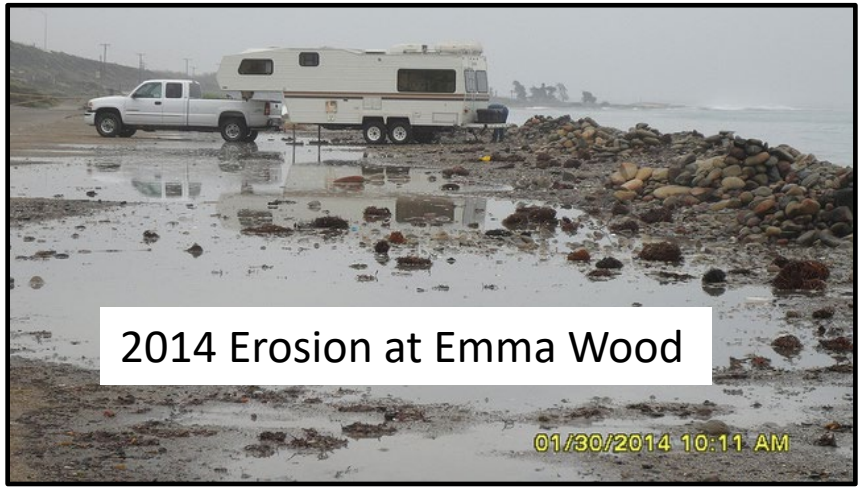


Historical Coastal Hazards: North Coast

2016 Flooding at Rincon Point

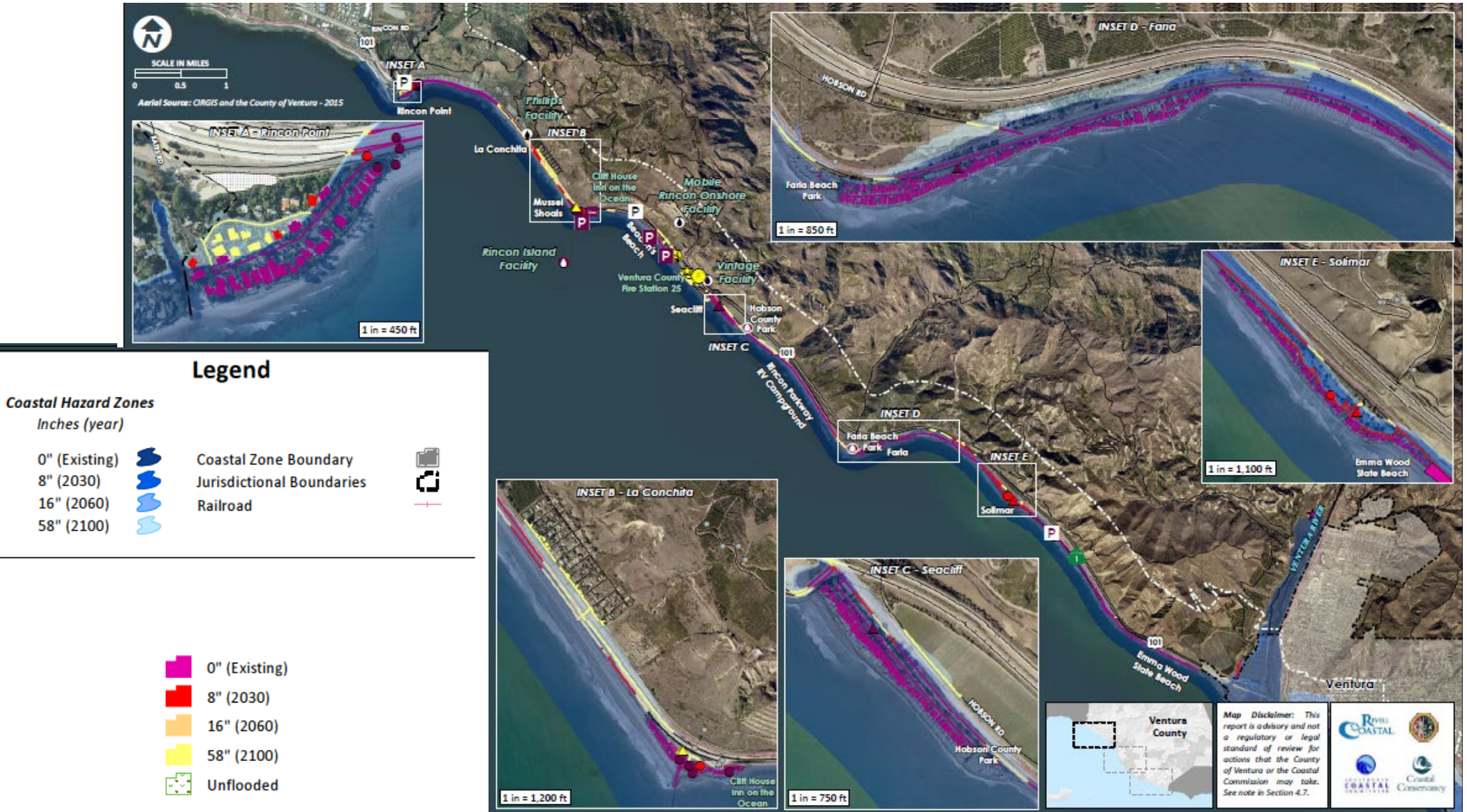
Storm Flooding of Rincon Parkway

Storm Waves at Faria



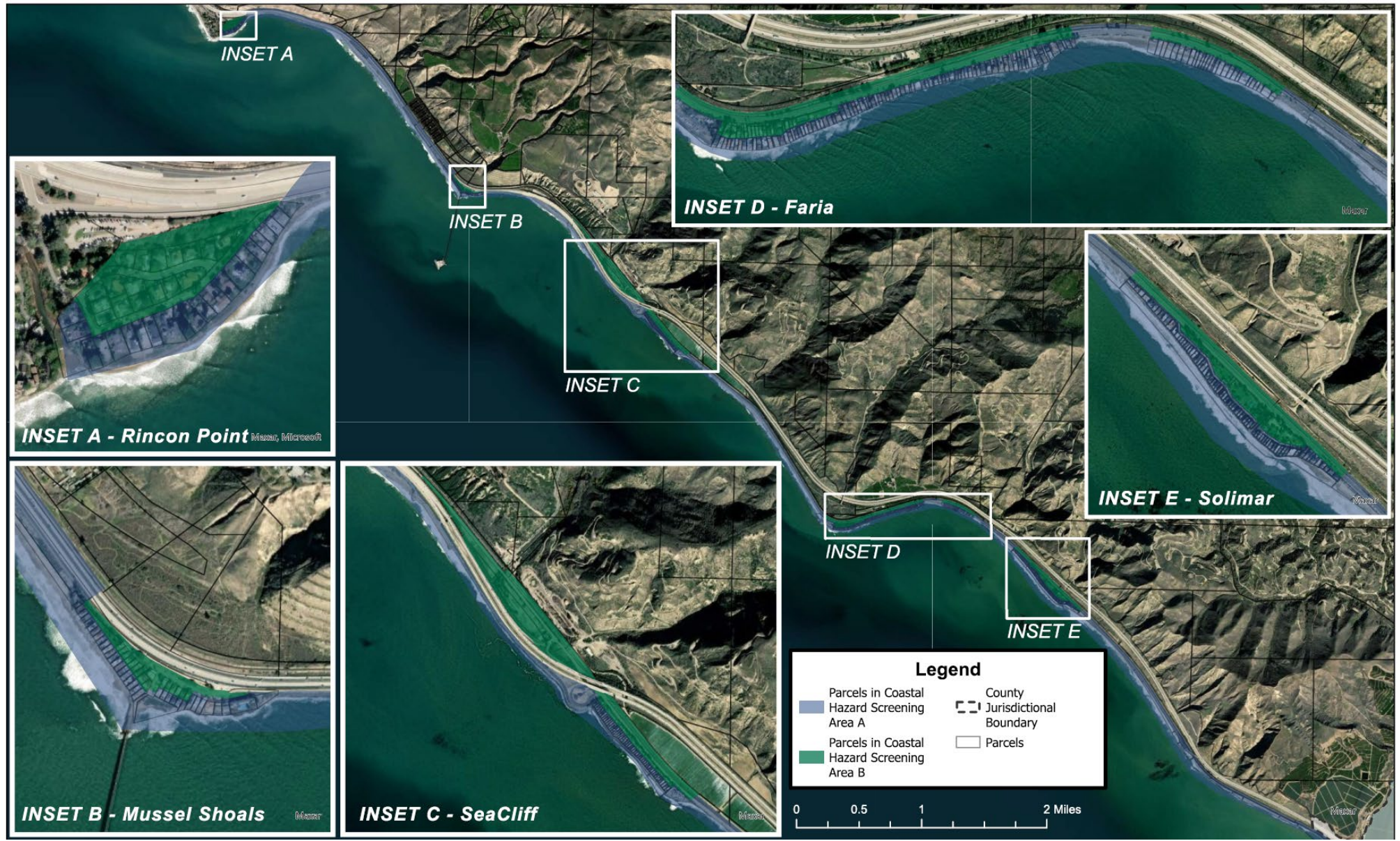
2014 Erosion at Emma Wood

MAPPED VULNERABILITIES: NORTH COAST

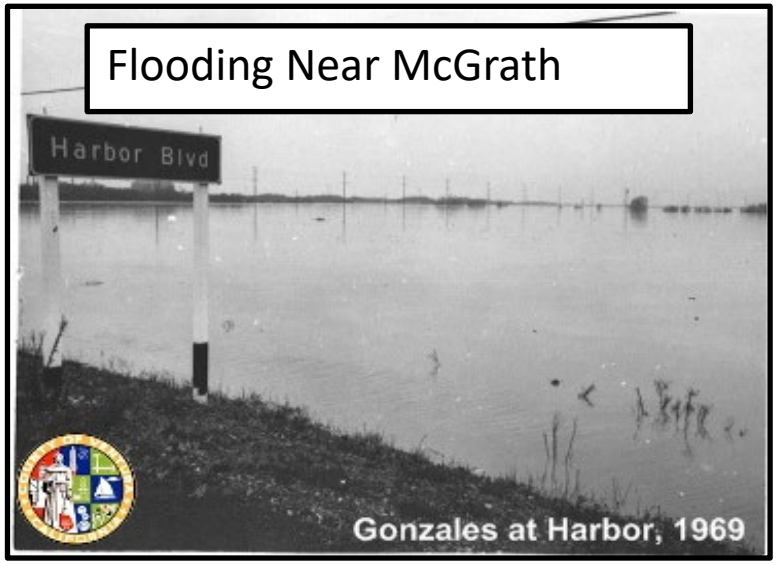


DRAFT COASTAL HAZARD SCREENING AREAS

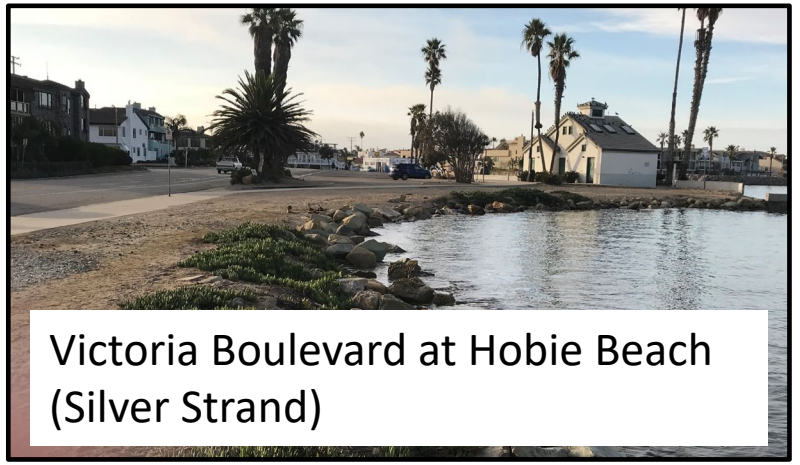
COUNTY of VENTURA
Resource Management Agency



Historical Coastal Hazards: Central Coast



Flooding Near McGrath


Victoria Boulevard at Hobie Beach (Silver Strand)


King Tides at Silver Strand


2017 Storm Flooding at Ocean Dr. @ Los Feliz St. (Hollywood Beach)

Mapped Vulnerabilities: Central Coast

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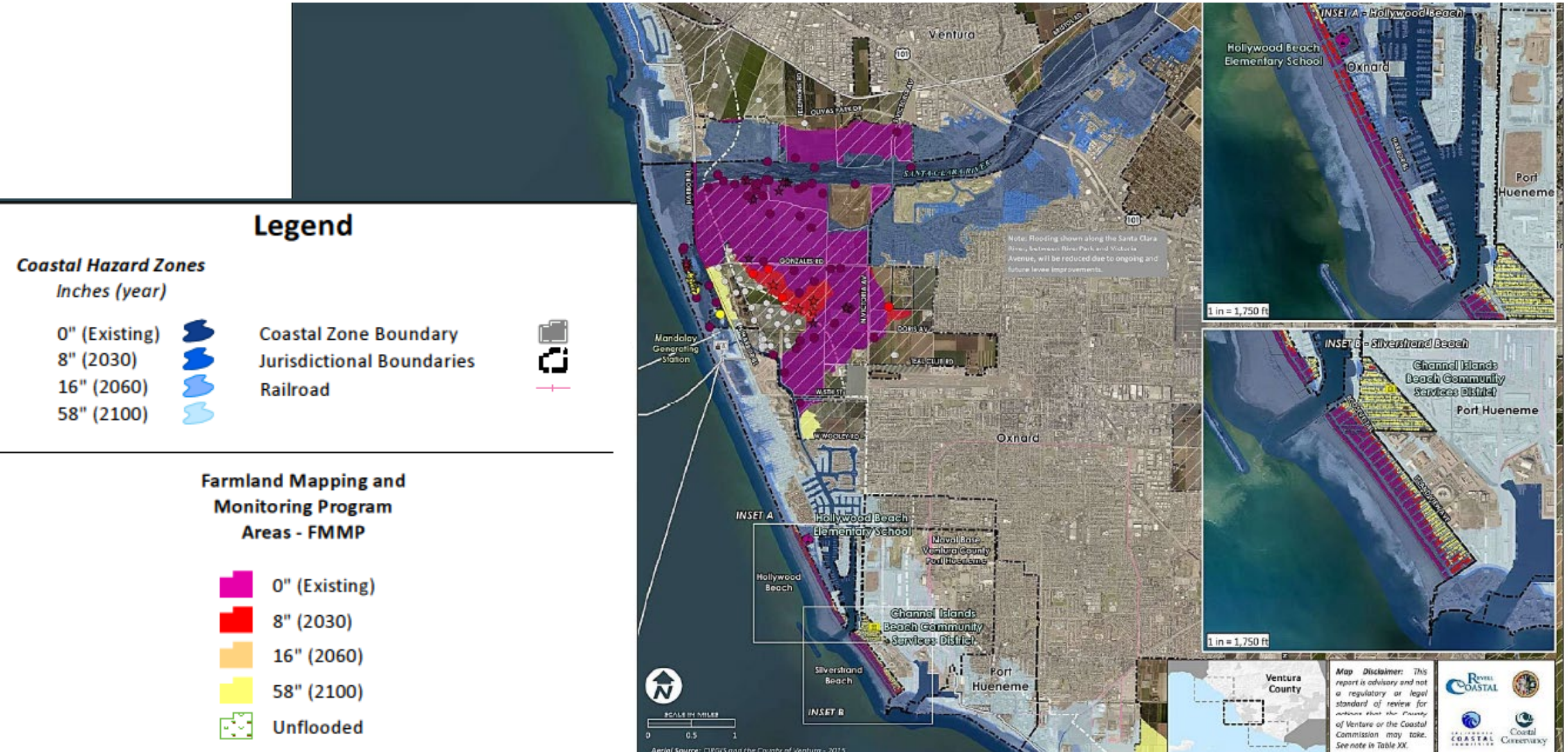
Resource Management Agency



Draft Coastal Hazard Screening Areas

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Draft Coastal Hazard Screening Areas

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Historical Coastal Hazards: South Coast

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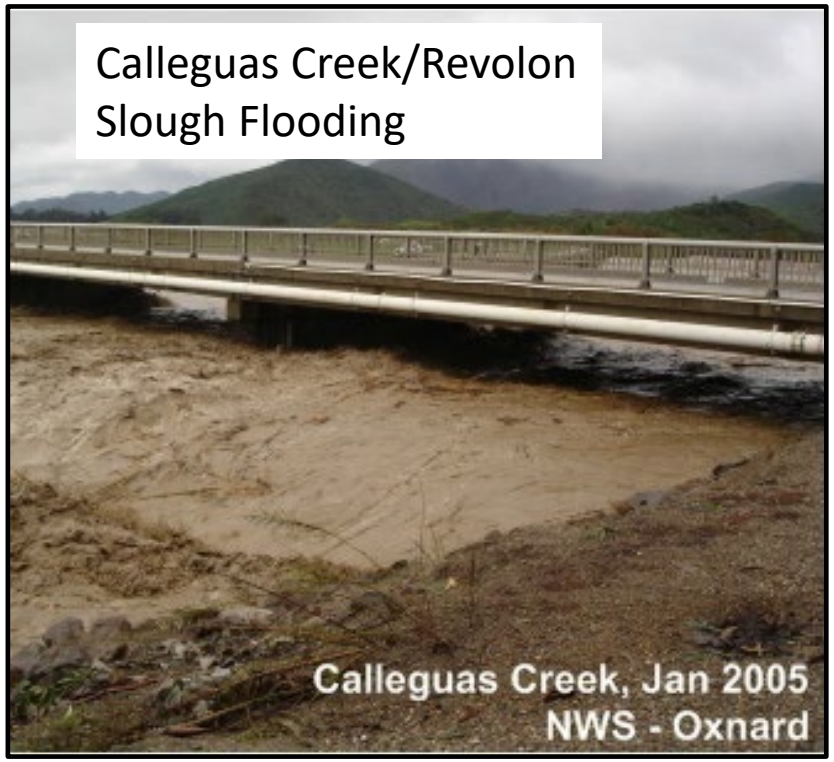

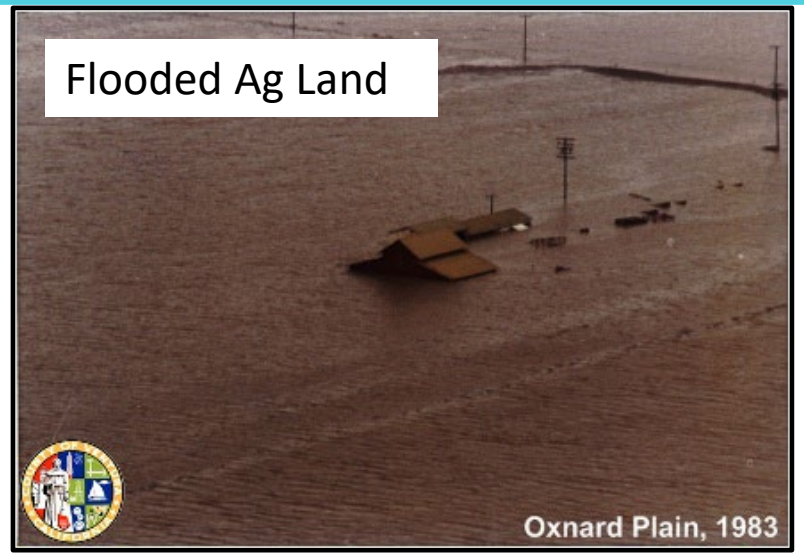

Mapped Vulnerabilities: South Coast

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Draft Coastal Hazard Screening Areas

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North Coast: FEMA and Sea Level Rise

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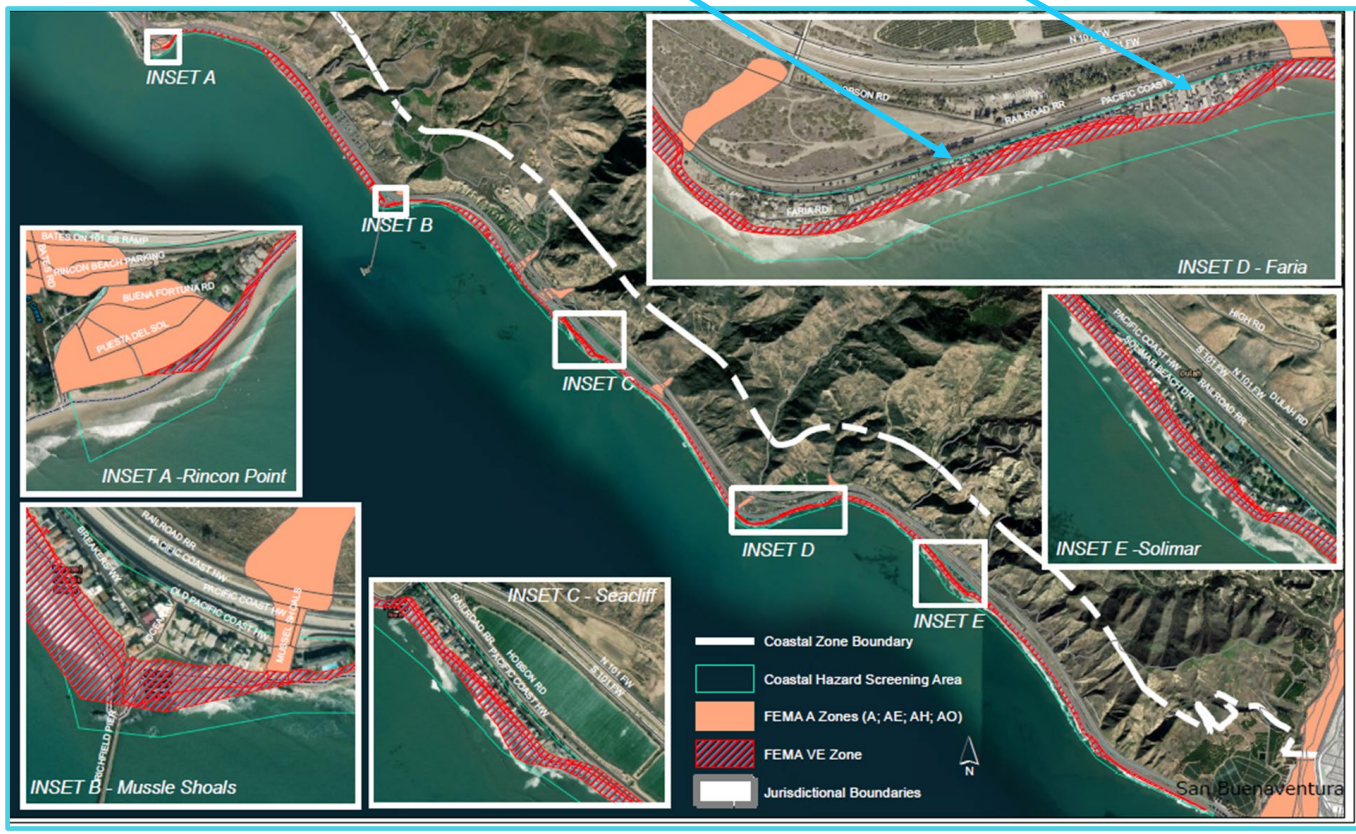
FEMA Flood Insurance Rate Map Revisions: Substantial Increases in Base Flood Elevations

- The North Coast increased by an average of 12 feet, the Central Coast by 4 feet, and the South Coast averaged an 8-foot increase
- If new development plans for 5 feet of sea level rise, that amount would often be equal or less than that height required by FEMA requirements today.

Some development is in and other is out of FEMA



Accessory Uses and Breakaway Design

Breakaway deck design was needed in the City of Pacifica in 2016.

Central Coast: FEMA and Sea Level Rise

FEMA Zones do not include existing development

100-year Storm
2.5 ft Sea Level Rise
(approx. year 2060-2080)

Natural Resources –Habitats

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- Critical habitat for the Western snowy plover is currently at risk and may be completely eroded with 8” of sea level rise.
- All USFWS species habitats vulnerable to coastal storm flooding (41-88%).
- Over 90% of estuarine habitats vulnerable to tidal inundation.
- Monarch overwintering sites at Rincon Pt. and Sycamore Canyon are vulnerable.

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Draft Local Coastal Program Amendments

ADAPTATION STRATEGIES

Wait and See

Accommodate

Hybrid

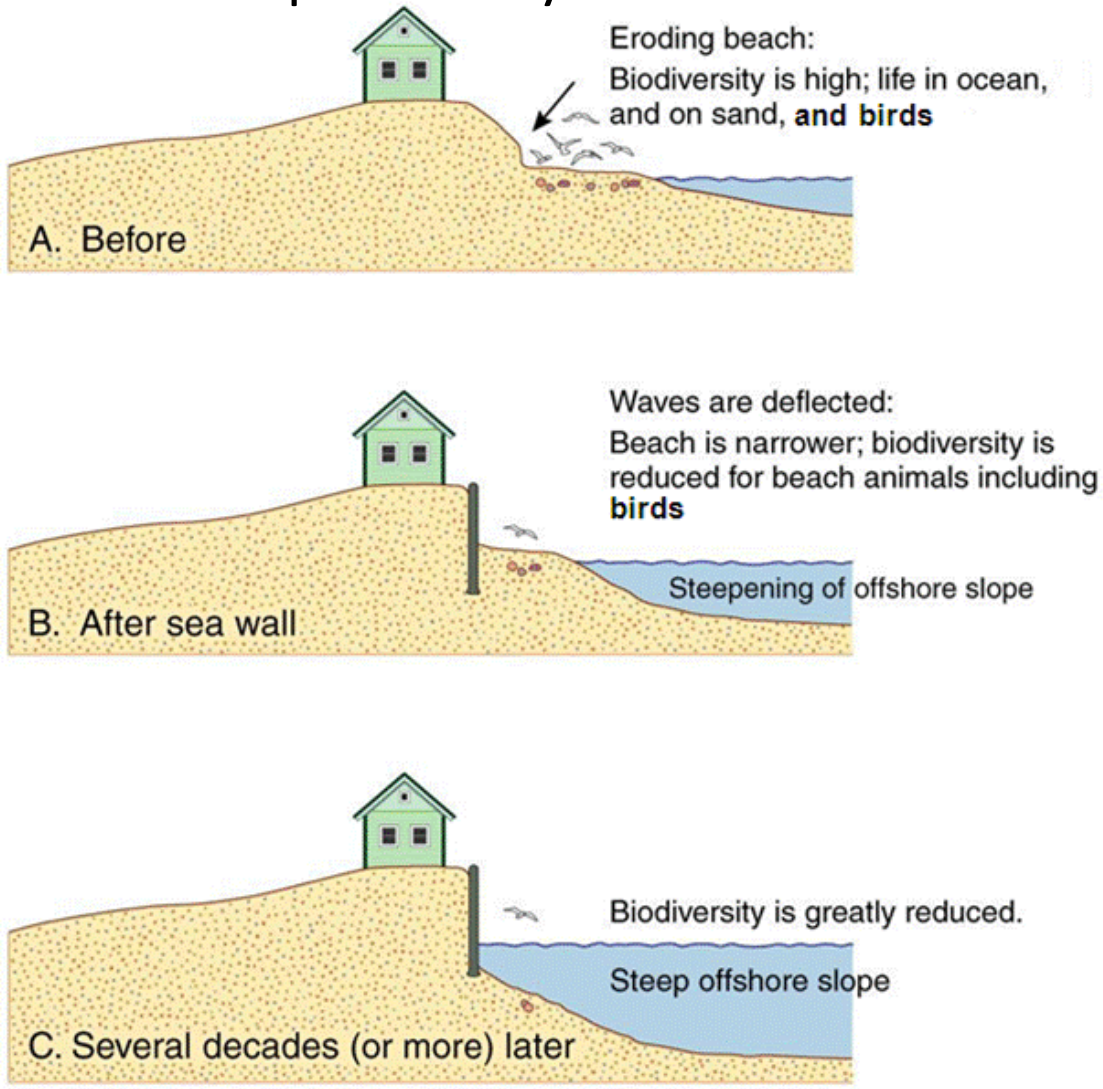
Protect

Inland Relocation

ADAPTATION - TRADEOFFS

- Construction Costs
- Maintenance Costs
- Recreation/Access
- Ecology
- Views/Aesthetics

Seawalls impact sandy beaches



Coastal Area Plan

Chapter 4.1:

4.1.4: Coastal Trail

4.1.6: New Section for Sea Level Rise (Moves Hazards and Erosion Sections from Chapters 4.3, 4.4, and 4.5)

A. Introduction

B. Narratives

Goals and Policies

Goal 1: Reduce Risks (49 policies)

Goal 2: Natural Adaptation (19 policies)

C: Climate Change (7 policies)

D: Programs (12 programs)

Minor edits to Access, Agriculture, Energy, Public Works and Recreation/Access

Countywide Workshop – June 10, 2024

Table 1 - Expected Life and Sea Level Rise Scenarios for Coastal Development, Identified by Proposed Use

Proposed Use	Expected Life (Years)	Sea Level Rise Scenario
Natural Surface Trails/ /Coastal Trail/Easily Removable Development	5	Intermediate
Public Restrooms and Ancillary Structures	20	Intermediate
Industrial Uses	100	Intermediate-High
Wetlands/Riparian Habitats	20	Low
Roads/Parking Lots Sidewalks	40	Intermediate-High
Infrastructure/Utilities that are not initiated by Public Works	Between 50-100 years with Planning Director Discretion	Intermediate-High
Wireless Communication Facilities (freestanding)	20	Intermediate-High
Residential/Commercial	75	Intermediate-High
Manufactured Homes	40	Intermediate-High
Public Works Initiated Projects other than Roads/Parking Lots/ Sidewalks. Includes, but is not limited to, Bridges, Levees, and Stream Alterations (Channels, Dams)	As determined by the Public Works Director in coordination with Planning Director; minimum of 75 years	Intermediate-High or as determined by the Public Works Director in coordination with Planning Director (see Policy 1.41 below)
Other Use	Planning Director Discretion or as specified in a neighborhood/corridor scale plan	Planning Director Discretion or as specified in a neighborhood/corridor scale plan

Table 3.1. Median values for Sea Level Scenarios for California, in feet, relative to a 2000 baseline. These statewide values all incorporate an average value of vertical land motion corresponding to a negligible rate of 0.1 mm (0.0003 ft) per year uplift. Evaluation of the Intermediate, Intermediate-High and High Scenarios (outlined in red below) is recommended to inform appropriate sea level rise planning and project decisions.

Year	Low	Int-Low	Intermediate	Int-High	High
2020	0.2	0.2	0.2	0.2	0.3
2030	0.3	0.4	0.4	0.4	0.4
2040	0.4	0.5	0.6	0.7	0.8
2050	0.5	0.6	0.8	1.0	1.2
2060	0.6	0.8	1.1	1.5	2.0
2070	0.7	1.0	1.4	2.2	3.0
2080	0.8	1.2	1.8	3.0	4.1
2090	0.9	1.4	2.4	3.9	5.4
2100	1.0	1.6	3.1	4.9	6.6
2110	1.1	1.8	3.8	5.7	8.0
2120	1.1	2.0	4.5	6.4	9.1
2130	1.2	2.2	5.0	7.1	10.0
2140	1.3	2.4	5.6	7.7	11.0
2150	1.3	2.6	6.1	8.3	11.9

Coastal Zoning Ordinance

Article 2: Definitions

Article 4: Table of Allowed Uses

Article 5: Development Standards

- Connection of Structures
- Uncovered Porches and Decks
- Building Height in RB and RBH Zones
- Shoreline Protective Devices

Article 8: Mitigation of Hazards

Article 11: Entitlements

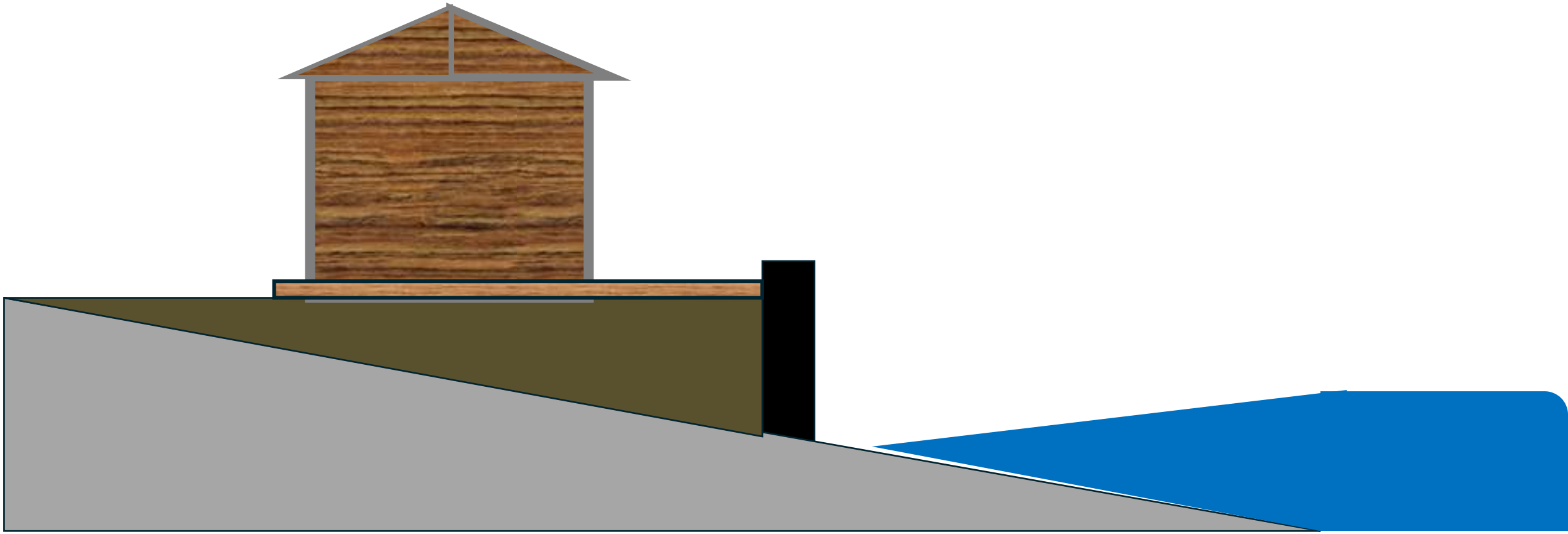
- Findings
- Modifications

Appendix H1:Hazard Reports

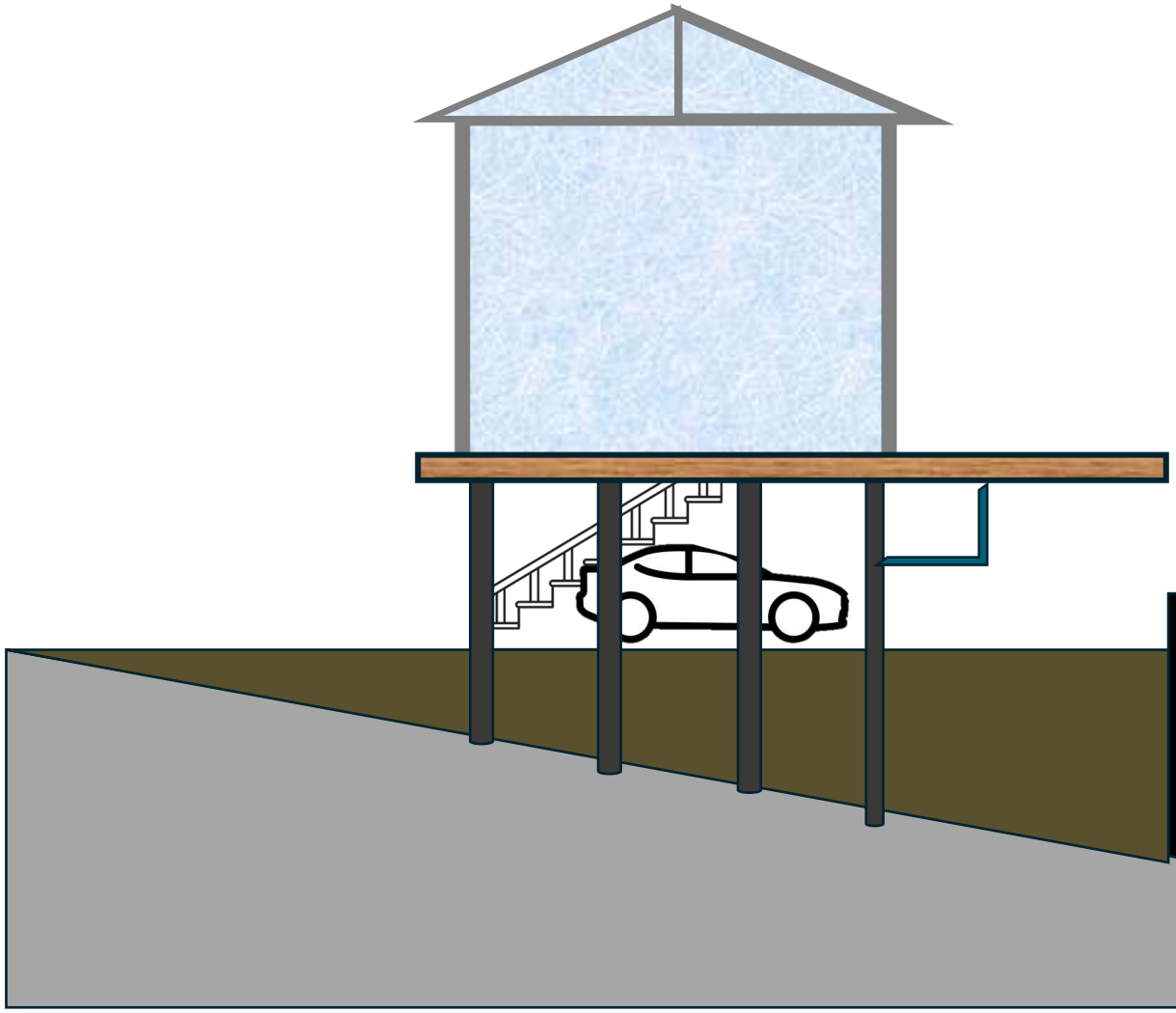
- Geologic
- Screening Area A
- Shoreline Protective Devices
- Screening Area B
- Maps

LAND USE CATEGORY	PERMIT REQUIREMENTS BY ZONE										
	COS	CA	CR	CRE	CR1	CR2	RB	RBH	CRPD	CC	CM
SHORELINE PROTECTIVE DEVICES (See Sec. 8175-5.12.2), including construction, repair, and/or maintenance	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD	PD
• If exempt per Sec. 8174-6.3.2, or 8174-6.3.6 or Sec. 8175-5.12.3(b)	ZC	ZC	ZC	ZC	ZC	ZC	ZC	ZC	ZC	ZC	ZC
[Staff comment: Text added to clarify permitting requirements for construction, repair, and/or maintenance activities associated with shoreline protective devices. No further changes are proposed to Section 8174-5.]											

Shoreline Structure with Armor that has Not Been Designed for Coastal Resilience



Shoreline Structure after Design for Coastal Resilience



- Designed Without Reliance on Seawall
- May maintain seawall, but not make it larger

Shoreline Structure that has Not Been Designed for Coastal Resilience on a Wide Beach

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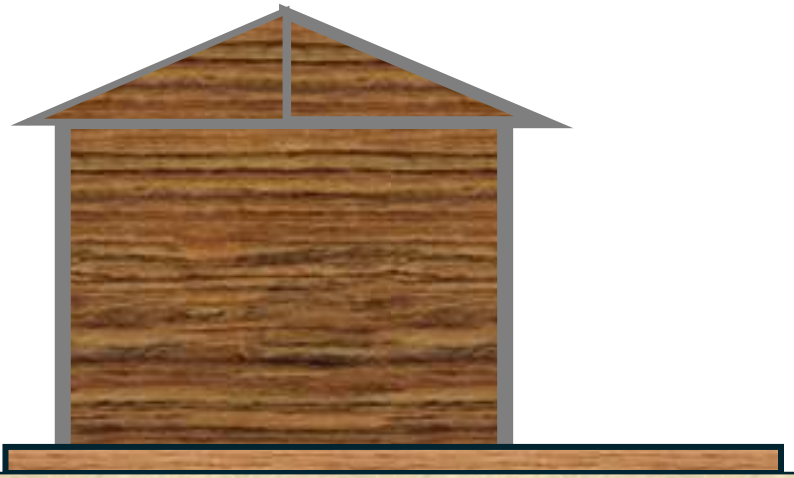
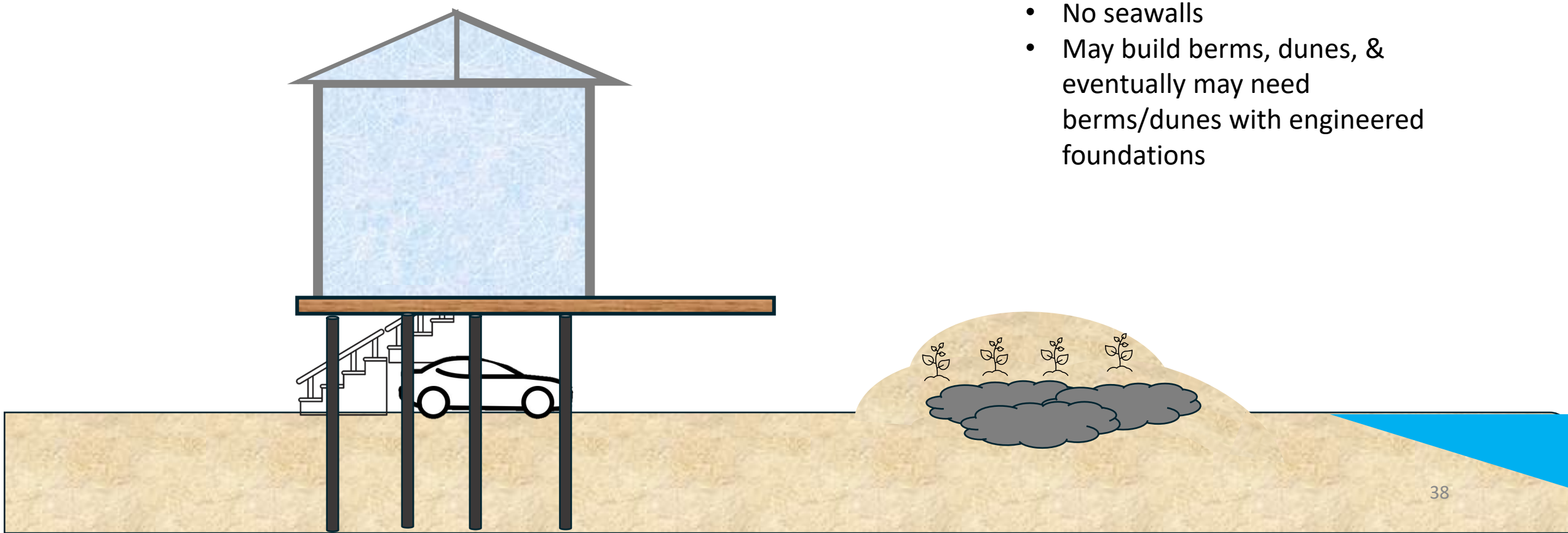
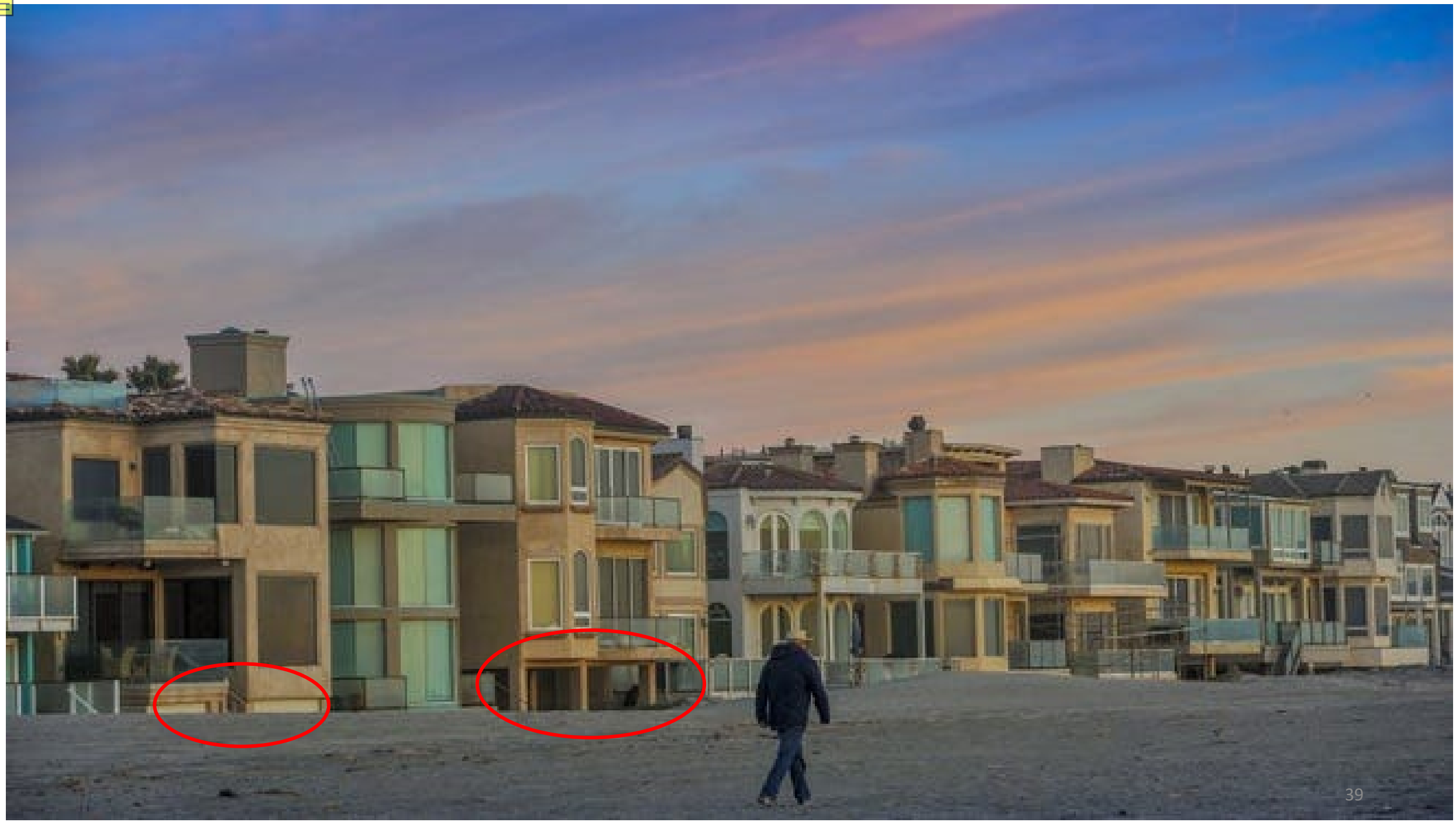


Shoreline Structure after Substantial Redevelopment: With SLR



- No seawalls
- May build berms, dunes, & eventually may need berms/dunes with engineered foundations



Cantilevered Deck Design

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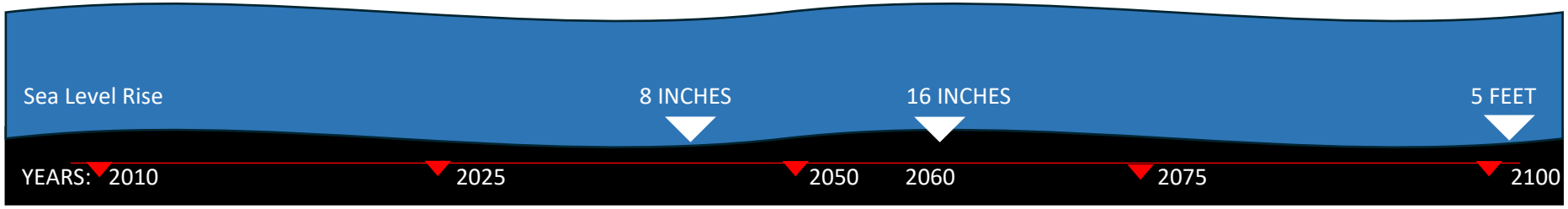
Limitations on pilings for decks/accessory uses

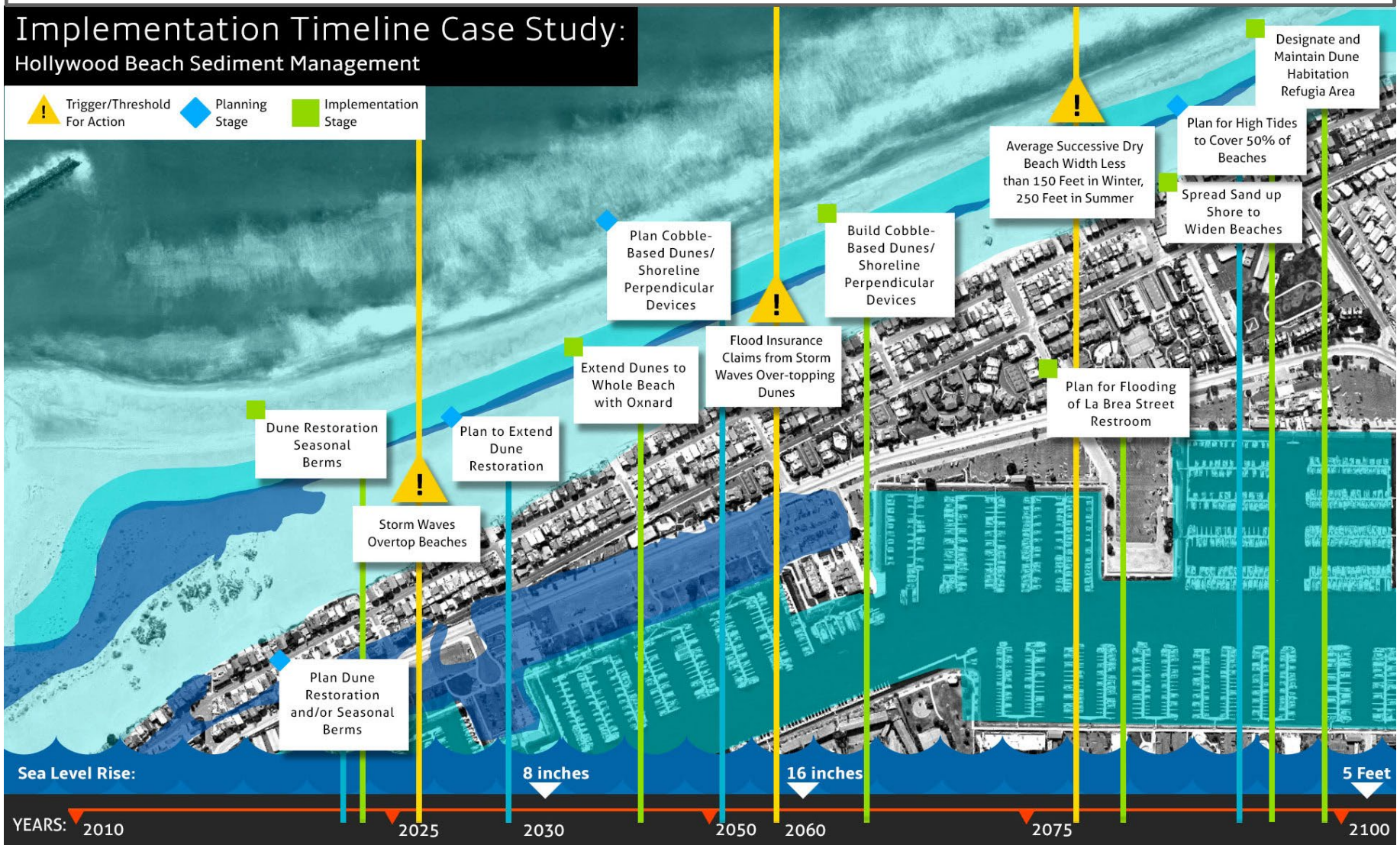
Adaptation Pathway Example: Hollywood Beach

Implementation Timeline Case Study:
Hollywood Beach Sediment Management



Adaptation Pathway Example: Hollywood Beach

This graphic shows how sea level rise adaptation strategies can hypothetically be applied over time. Various "thresholds" as illustrated by the yellow explanation point icons, could be used to begin planning (blue-diamond icons) and implementation (green-square icons) for new adaptation strategies as they are needed.



VC RESILIENT COASTAL ADAPTATION PROJECT

Visual Simulations

Visual Simulations

- Visual Simulations are representative for discussion
- Heights have been approximated
- Height increases based off a 5-ft sea level rise projection and FEMA Flood zones, whichever is higher
- FEMA Height Increase = # of feet new structures would be elevated to clear flood requirements


North Coast
N
Rincon Point
La Conchita
Mussel Shoals South
Seacliff 101 Offramp
Faria Point
Faria South Central
Solimar Central
Solimar South
City of Ventura Boundary

Mussel Shoals South

Coastal Access Point

Mussel Shoals – South

FEMA Height Increase: N/A*

SLR Height Increase: ~5-ft

Seacliff – 101 Offramp

Seacliff – 101 Offramp

FEMA Height Increase: ~7.25-ft

SLR Height Increase: ~5-ft

Seacliff – 101 Offramp

FEMA Height Increase: ~7.25-ft

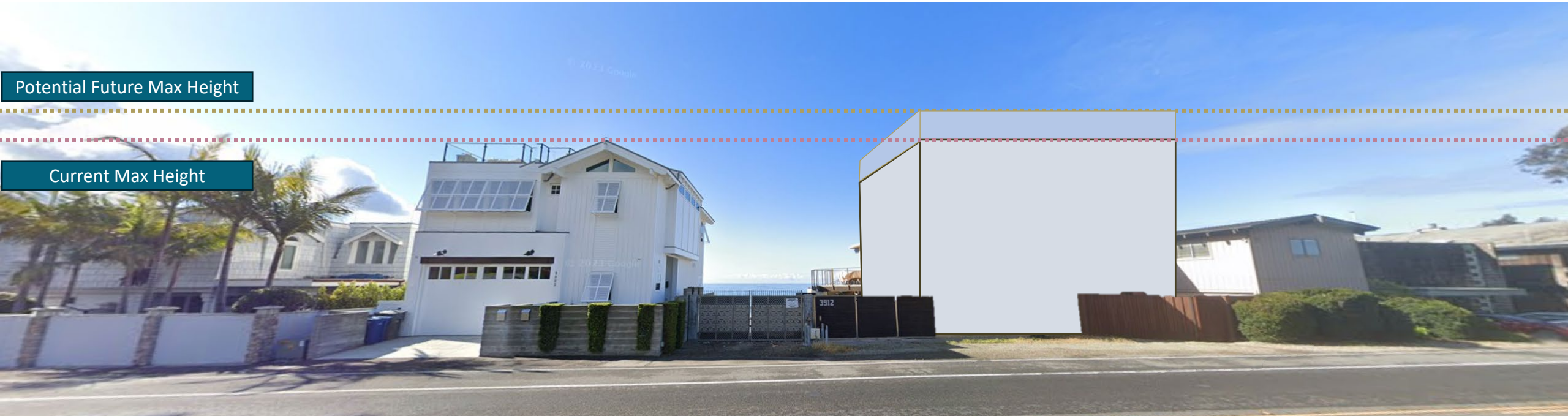
SLR Height Increase: ~5-ft

Faria – South Central

Faria – South Central

FEMA Height Increase: ~4.5-ft

SLR Height Increase: ~5-ft



Faria – South Central

FEMA Height Increase: ~4.5-ft

SLR Height Increase: ~5-ft


Solimar Central
N

Solimar Central

FEMA Height Increase: +2ft

SLR Height Increase: +5ft


Solimar South
N
Coastal Access Point

Solimar South

FEMA Height Increase: ~6-ft

SLR Height Increase: ~5-ft

Solimar South

FEMA Height Increase: ~6-ft

SLR Height Increase: ~5-ft


South Coast
N
Point Mugu Rock
Great Sand Dune
Sycamore Cove
Yerba Buena Beach
Solromar – Tonga Street
South County Boundary
Coastal Access Point

Solrolmar – Yerba Buena Beach

Coastal Access Point

Solromar, Yerba Buena Beach
FEMA Flood Elevation: ~18-ft
SLR Height Increase: ~5-ft

Solrolmar – Tonga Street

Coastal Access Point

Solromar, Tonga Street

FEMA Height Increase: ~6-ft

SLR Height Increase: ~ 5-ft

Summary

- Sea level rise is a slow looming threat that will increase first with storm events and then rising tides.
- There are variety of existing communities and conditions to plan for along the County's approximately 23 miles of unincorporated coastline.
- The proposed amendments represent a first step in planning for sea level rise that is focused on phasing in adaptation as new development occurs
- The proposed amendments would begin a long-term process to reduce the county's reliance on shoreline protective devices, while allowing maintenance on existing devices, and elevating new principal development to ensure it is safe.
- Future phases could include neighborhood scale plans that focus on a comprehensive approach to achieving resilient communities,

Project Schedule

The remaining phases of this project are summarized below:

- April/May: Finish LCP amendment prep and conclude grant contract with Coastal Commission
- June 5th Release of Draft LCP amendments for Public Review and Zoom Outreach Meeting
- July 20th Conclude 45-day public review and begin including comments
- Fall 2024: Planning Commission hearing to recommend adoption of LCP amendments
- Early 2025: Board of Supervisors hearing for adoption of LCP amendments
- Remainder 2025: LCP Coastal Commission amendment certification hearings

VC RESILIENT COASTAL ADAPTATION PROJECT

Visit the webpage to download the amendments at:
vcrma.org/en/vc-resilient-coastal-adaptation-project

Please submit comments to:
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