

# California Beach Protection and Sea Level Rise: Lessons for the Future

Managing Threats to America's Beaches from Storms and Rising Seas  
Environmental Law Institute

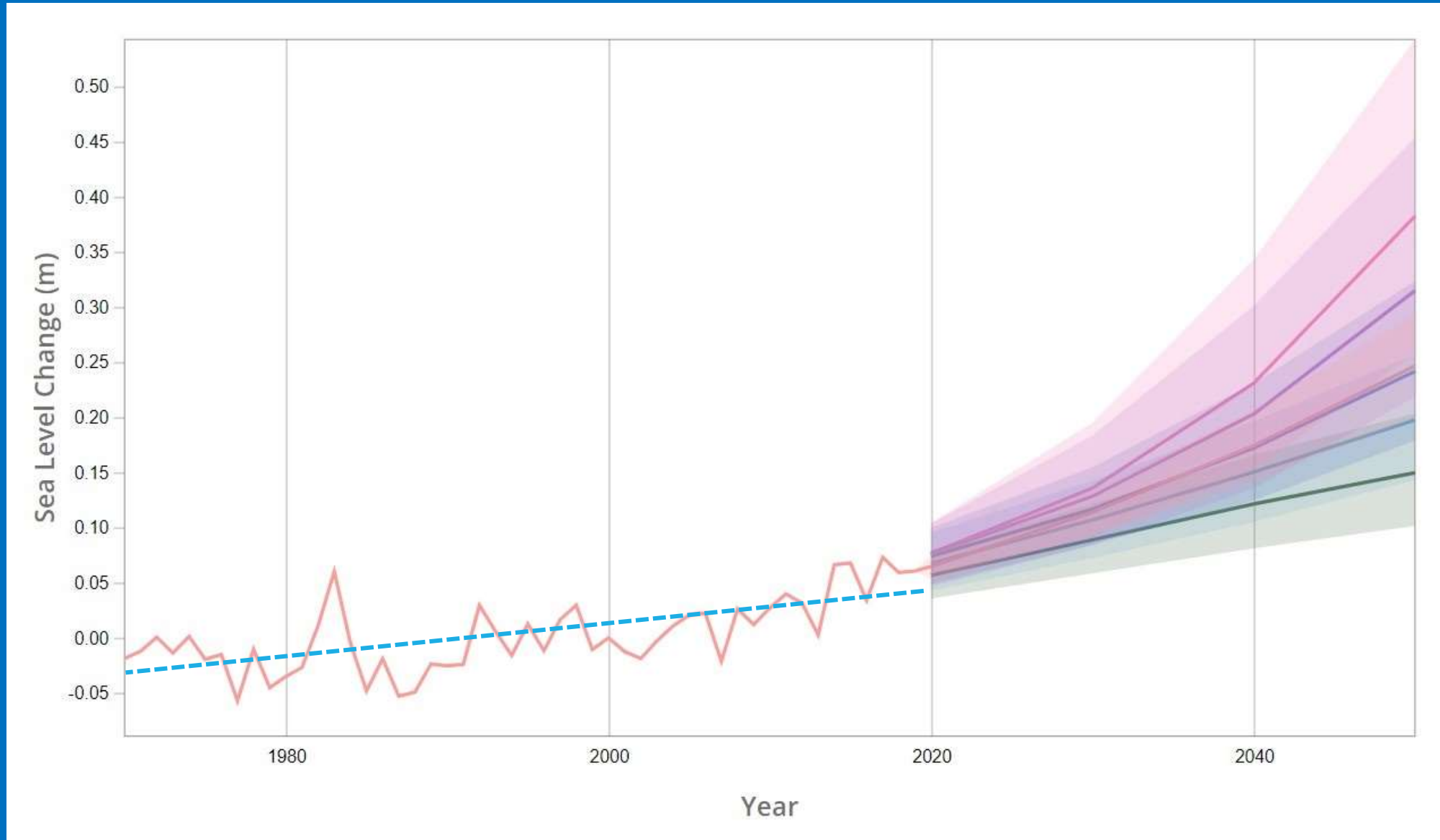
Charles Lester  
January 25, 2023

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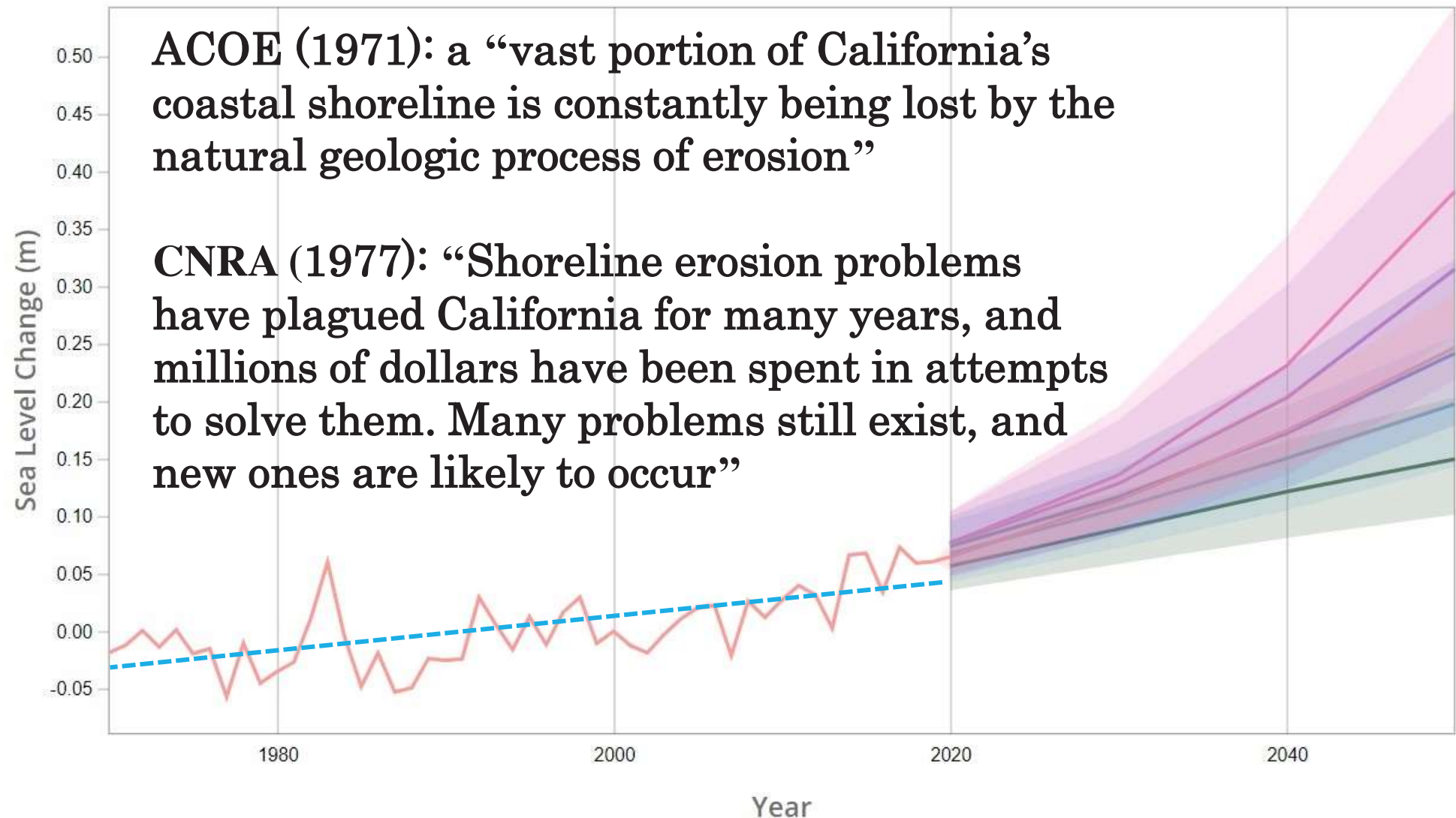


Photo: Charles Lester

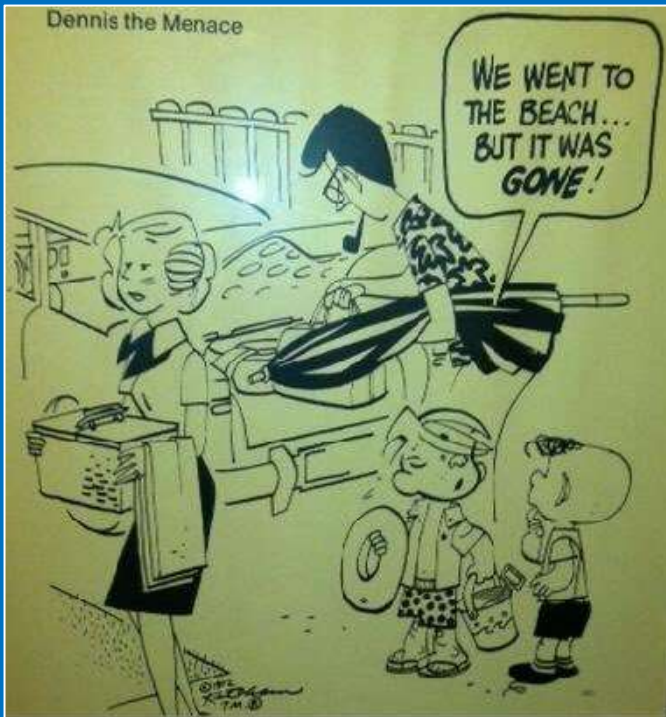
# Sea Level Rise: An Accelerating Trend



# Sea Level Rise: An Accelerating Trend



# 50+ Years of California Coastal Management



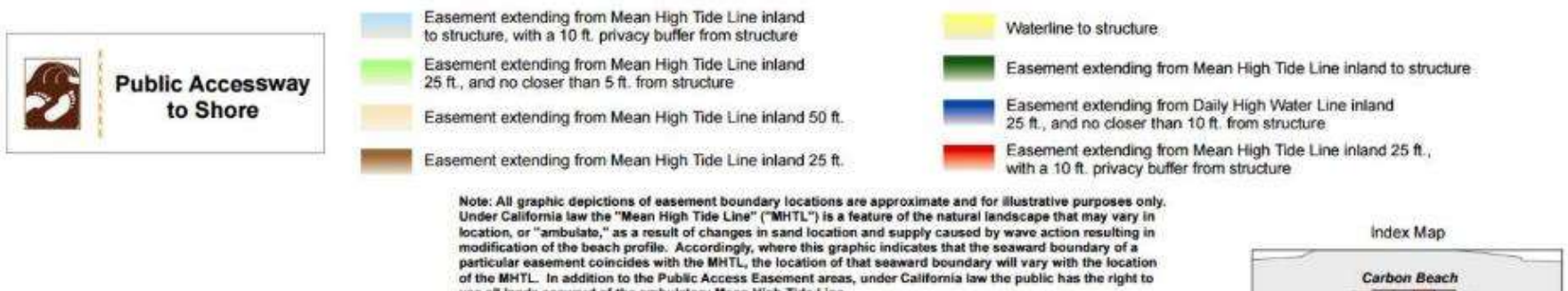
Twitter, The California Coast



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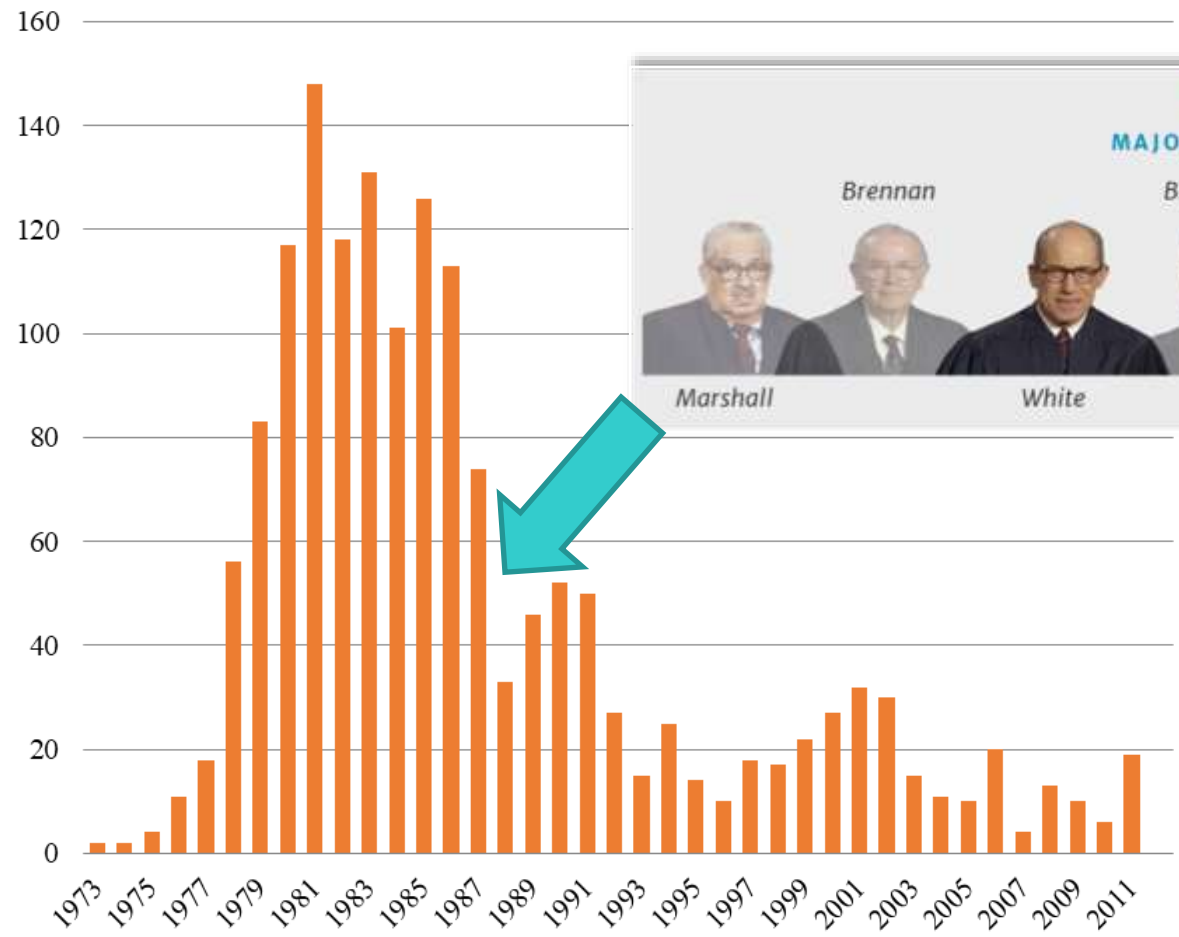
... the **permanent protection** of the remaining natural and scenic resources of the zone is a paramount concern to **present and future generations** of the state and nation. . . .

# California Coastal Act -- Protecting Beach Access with Easements



# Protecting Access with Easements

Recorded Offers to Dedicate



*Nollan v. Coastal Commission*

**➔ NO NEXUS**

# Shoreline Hazard Regulation: New development must be safe and never need shoreline protection



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# Del Monte Dunes Resubdivision, Monterey



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# Three Decades of Rolling Easements



# Bacara Resort Required Beach House Removal



Photo: Charles Lester



Photo: Charles Lester

# New Development in a Hazard Zone? Just Say No



Photo: Charles Lester

# Existing Development – Inevitable Seawalls

**1989**

**2010**

**% of Shoreline with Armor**

Region	1971 Army Corps National Shoreline Study	2004 CCC Armoring Inventory (J. Dare)
North (Del Norte to San Mateo)	~1%	~3%
Central (Santa Cruz-San Luis Obispo)	~2%	~9%
South (Santa Barbara to San Diego)	~13%	~28%

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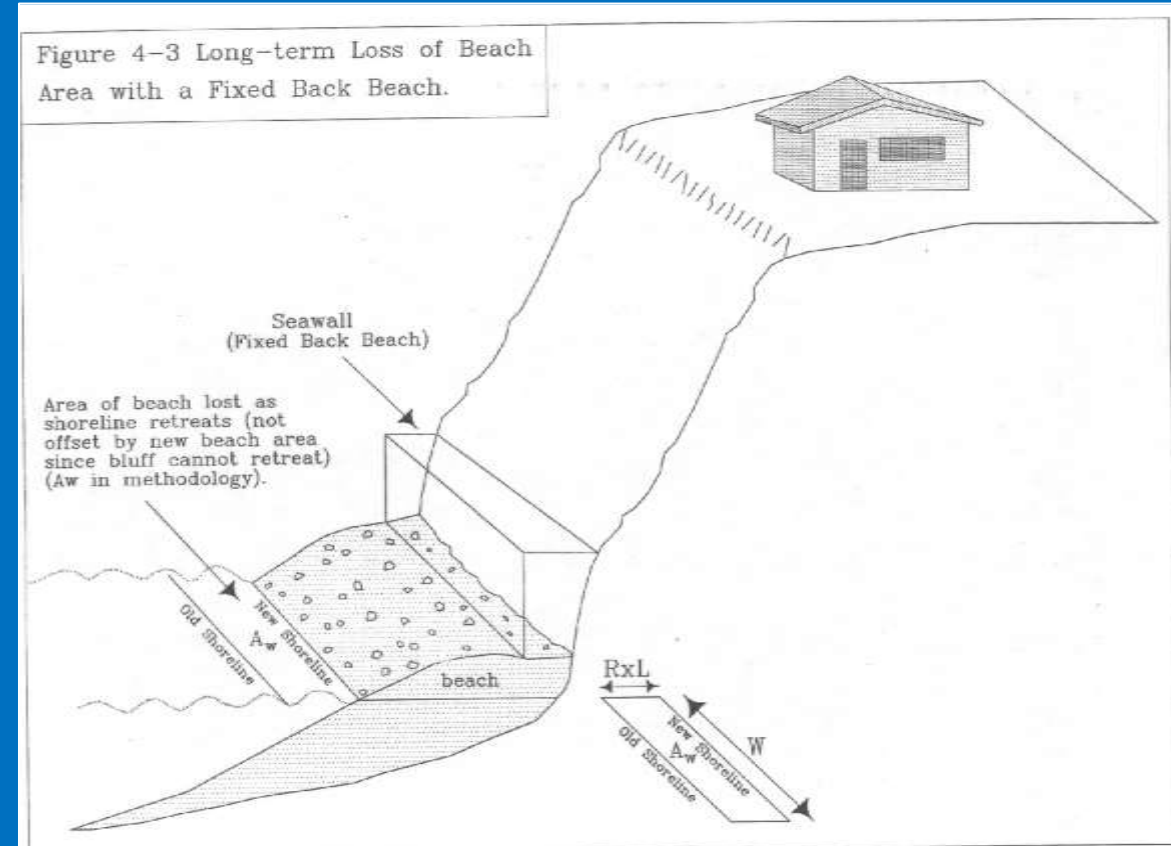
# Shoreline Protection Impacts to Tidelands



# Shoreline Protection Impacts to Tidelands



# Mitigating Beach Loss caused by Seawalls





Externalities...



**A private taking of  
the public beach?**

**→ \$5.2 million  
mitigation fee**



# King-tide at Ocean Harbor House



# Stilwell Hall, Fort Ord



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# Stilwell Hall, Fort Ord



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# Protecting Beaches with Enforcement – Half Moon Bay Ritz Carlton



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# Protecting Beaches with Enforcement – Half Moon Bay Ritz Carlton



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# With SLR, Public Tideland are Ambulating INLAND

**Figure 5. CoSMoS Projected Shoreline Change, 100 cm of SLR by 2100, Del Mar, CA.<sup>21</sup> CA100.**



Fn 21. Barnard, P.L., Erikson, L.H., Foxgrover, A.C., Limber, P.W., O'Neill, A.C., and Vitousek, S., 2018, Coastal Storm Modeling System (CoSMoS) for Southern California, v3.0, Phase 2 (ver. 1g, May 2018): U.S. Geological Survey data release, <https://doi.org/10.5066/F7T151O4>.

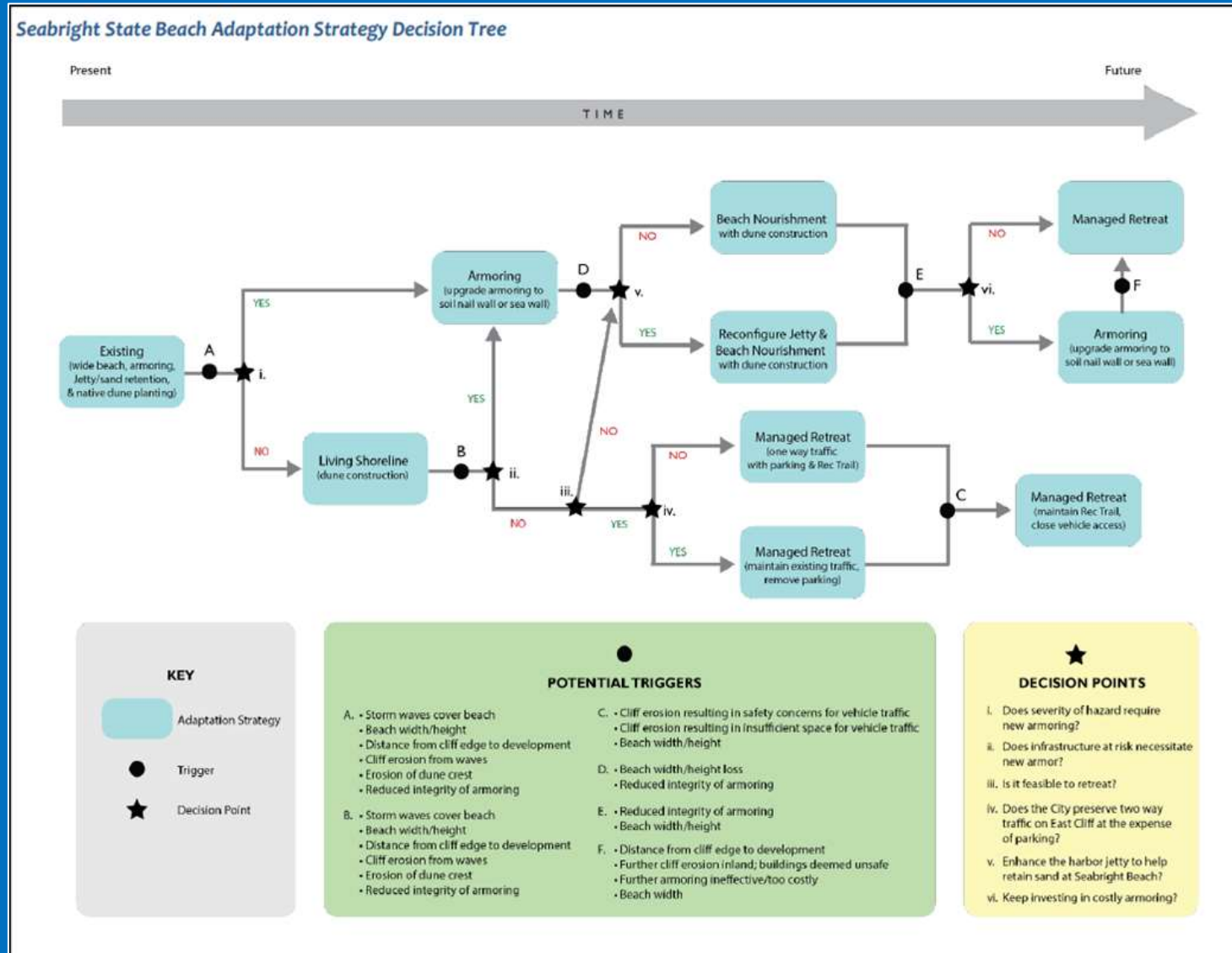
# The Coastal Squeeze and Community Conflict



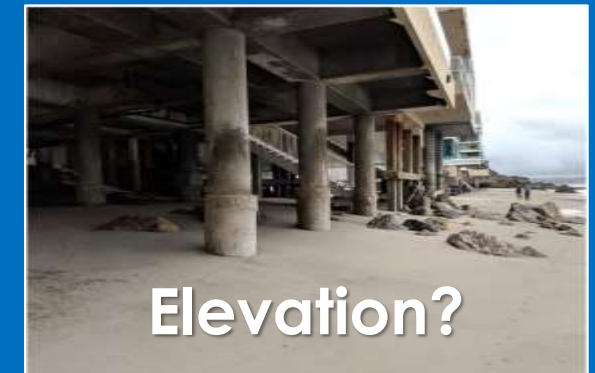
**King Tide Beach Walk, Del Mar, 2021**

Photo: Charles Lester

# Adaptation Pathways and Triggers

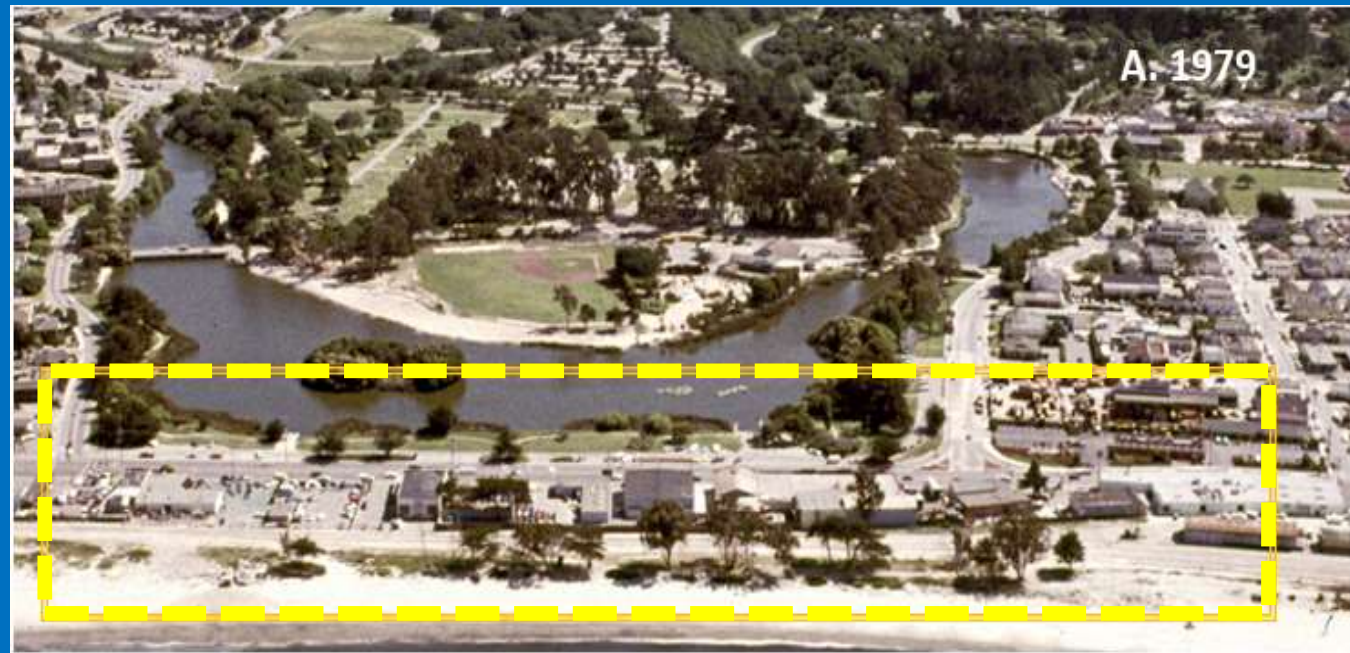


Photos: Charles Lester





# City of Monterey, Window on the Bay



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# City of Monterey, Imagining Future Coastlines

### Flood Protection: Sea Wall between Bay and Downtown (Living Behind Barriers)

Add backflow prevention and new pump stations

Maintain existing recreation trail on or behind wall

Maintain existing homes and businesses for longer

Monterey GEI Kimley + Horn 24

### Planned Retreat: Reimagining Downtown

New waterfront shopping & dining

Healthy ecosystems

Viaduct

Sheltered aquatic recreation

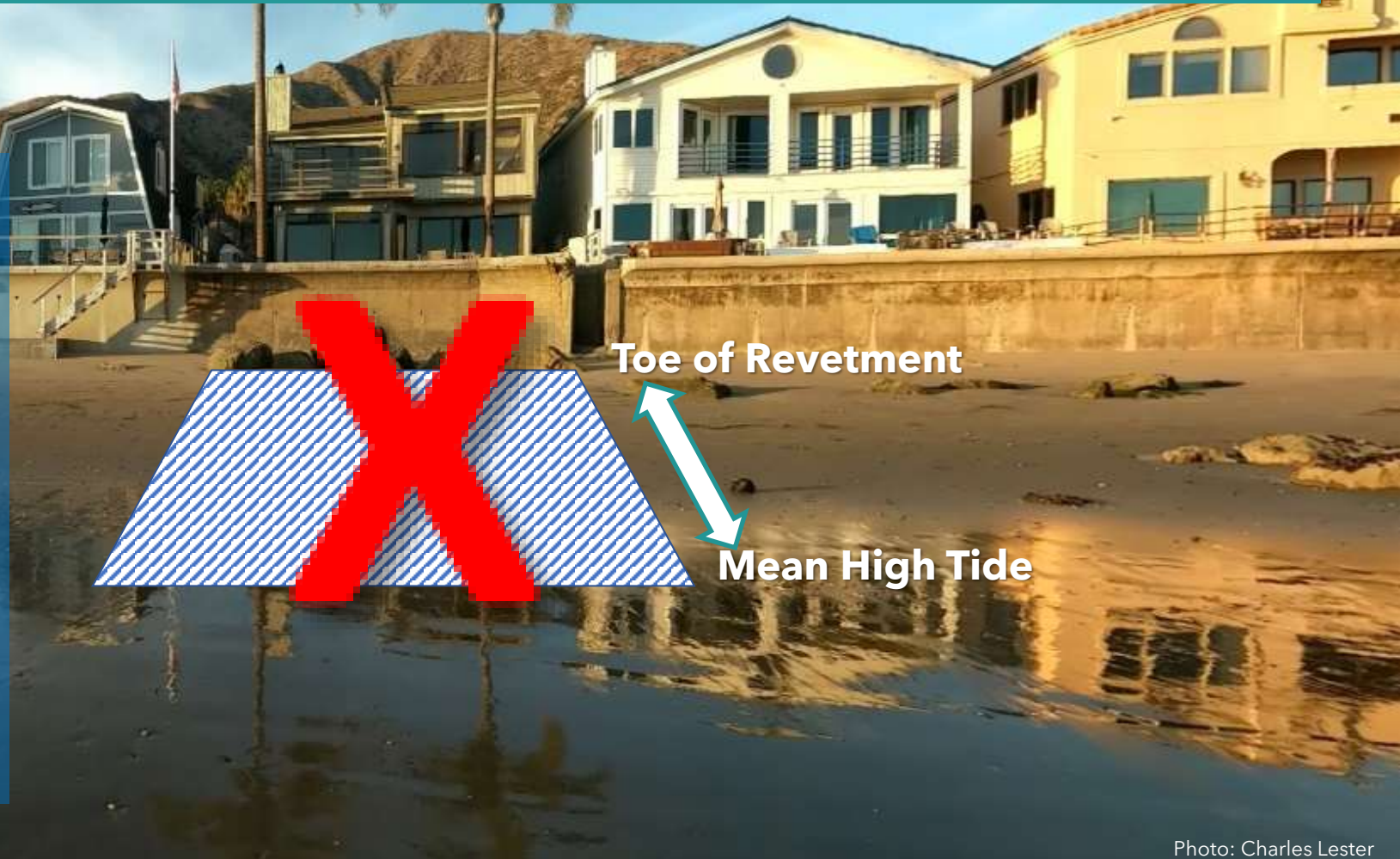
2+ miles of new coastline & bike trails

Monterey GEI Kimley + Horn 26

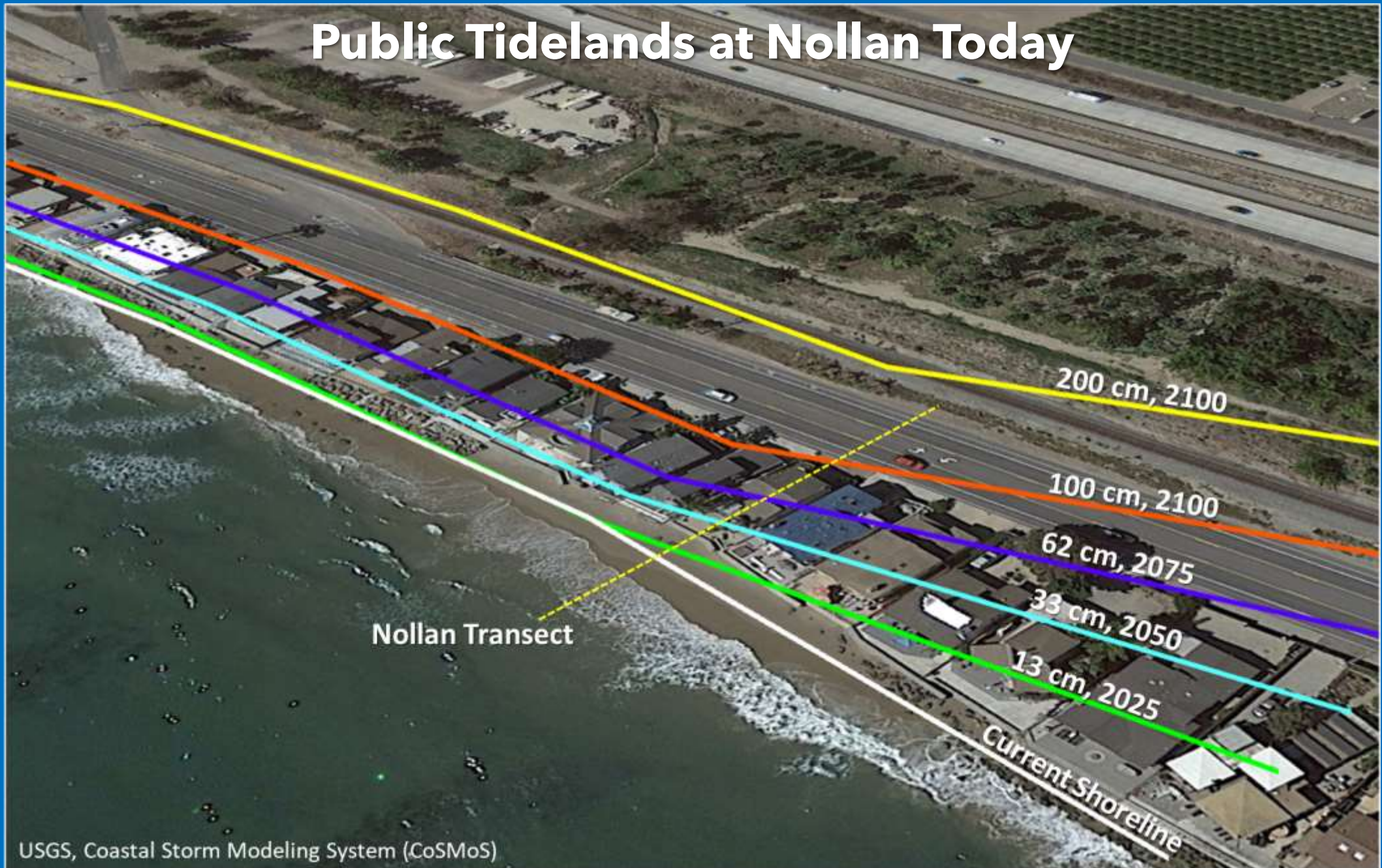
# Public Tideland Access, Nollan and Nexus

**SCOTUS: A government agency cannot impose a condition unless it has an essential nexus to a legitimate state interest.**

**Minority Opinion (Brennan):**  
The deed restriction . . . provide[s] a formal declaration of the public's right of access, thereby ensuring that the *shifting character of the tidelands*, and the presence of private development immediately adjacent to it, would not jeopardize enjoyment of that right.



# Public Tidelands at Nollan Today



USGS, Coastal Storm Modeling System (CoSMoS)

# Public Tidelands at Nollan Today



**Kingtide 2019-2020**

CA Kingtides, Photo 330, 2019-220 Ventura, Faria Beach

# Sea Level Rise, Adaptation Pathways and Tideland Triggers

Remove development if “no longer located on private property due to migration of the public trust boundary.”



Photo: Charles Lester

Figure 32. Differing Shorelines, SLR Projections and Conditions.



**CosMos up to 9.75 ft SLR “erosion uncertainty”.**  
“The applicant further agrees, on behalf of himself and all successors and assigns, that the landowner(s) shall remove the development authorized by this permit, including the residence, garage, foundations, permitted encroachments, and patio if (c) the development is no longer located on private property due to the migration of the public trust boundary;” 5-17-0792 (Dhawan Family Limited Partnership); 5-19-0405(Maxwell); 5-18-0651 (Diversified Holdings, LLC)



**CosMos up to 200 cm SLR.**  
“In addition, the boundary between public tidelands and private land may shift with rising seas, the structure(s) may eventually be located on public trust lands, and the development approval does not permit encroachment onto public trust land; any future encroachment must be removed unless the Coastal Commission determines that the encroachment is legally permissible pursuant to the Coastal Act and authorizes it to remain, and any future encroachment would also be subject to the State Lands Commission’s (or other trustee agency’s) leasing approval.” 5-19-0272 (3805 Seashore Drive, LLC)



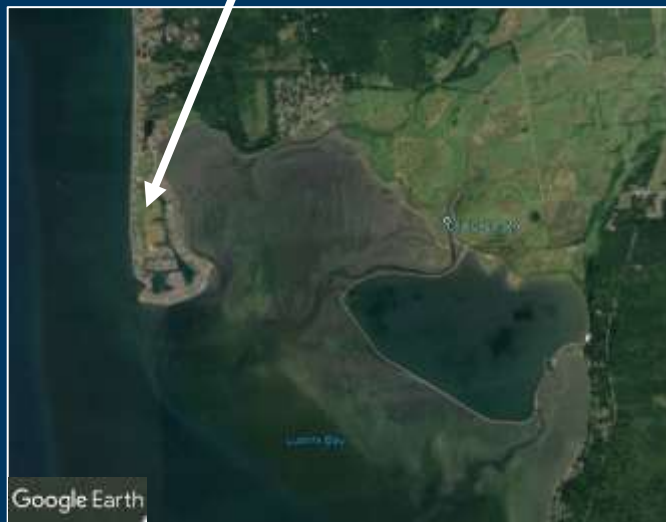
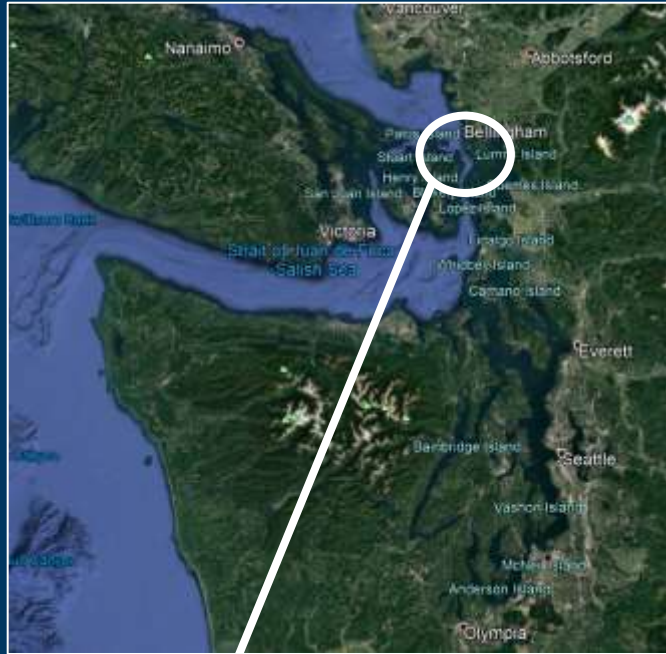
**CosMos up to 200 cm SLR.**  
“By acceptance of this permit, the applicant further agrees, on behalf of itself and all successors and assigns, that the landowner(s) shall remove the development authorized by this permit, including the residence, garage, foundations, and hardscape if: . . . (c) the development is no longer located on private property due to the migration of the public trust boundary; . . .” 5-17-0017 (Redhill) Sunset Beach

# United States v. Milner, 583 F.3d 1174 (9th Cir. 2009).

... both the tideland owner and the upland owner have a **right to an ambulatory boundary**, and each has a vested right in the potential gains that accrue from the movement of the boundary line.



... the **Homeowners do not have the right to permanently fix the property boundary** absent consent from the United States or the Lummi Nation.



# Thank You



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