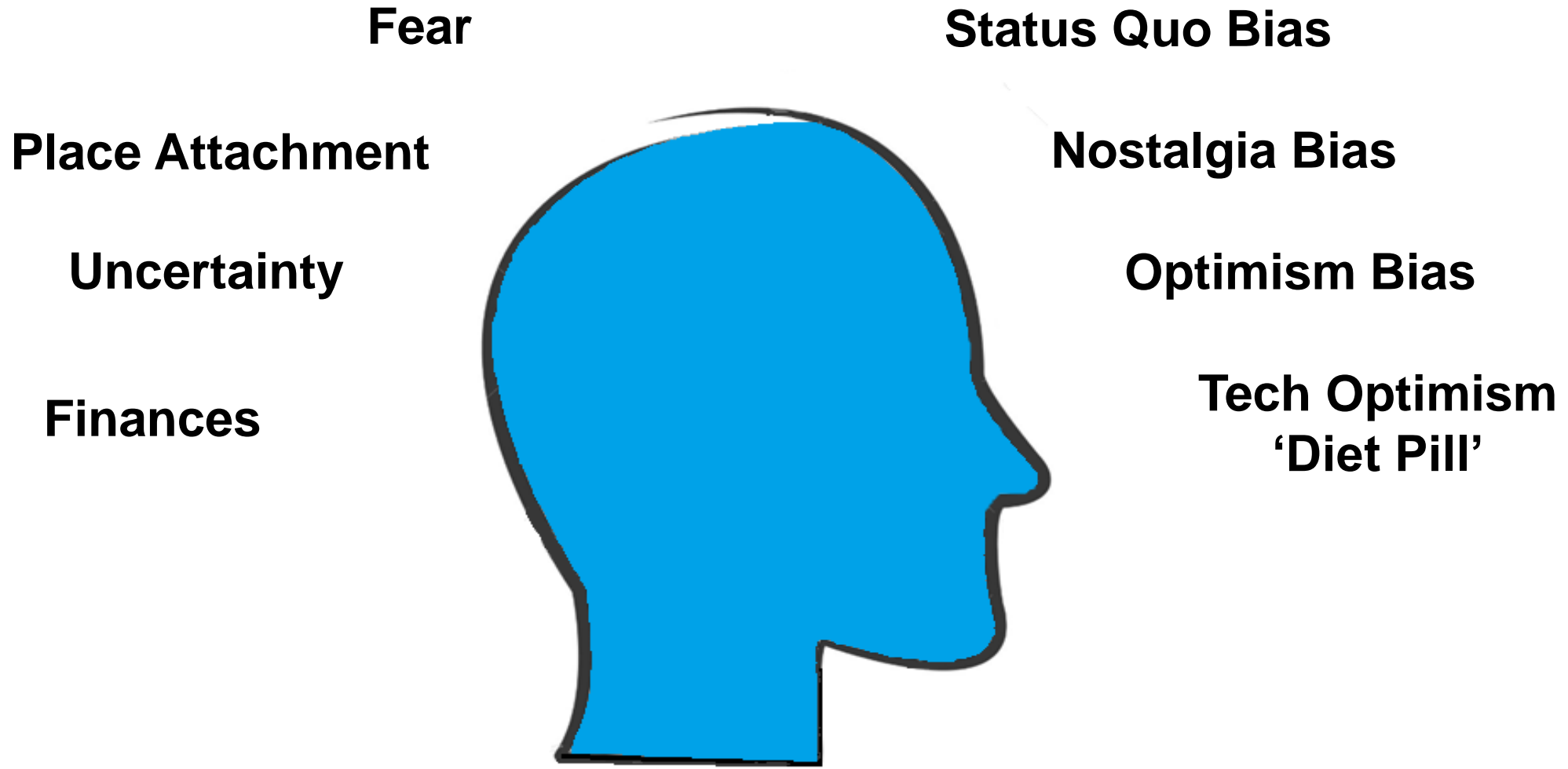




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The 'R' Word





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Rising seas will threaten San Clemente beaches, study says

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NEWS

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Carlsbad firefighters stand near the site of a bluff collapse at Grandview Surf Beach on Aug. 2. Three adults were killed in the collapse. Photo by Abraham Jewett

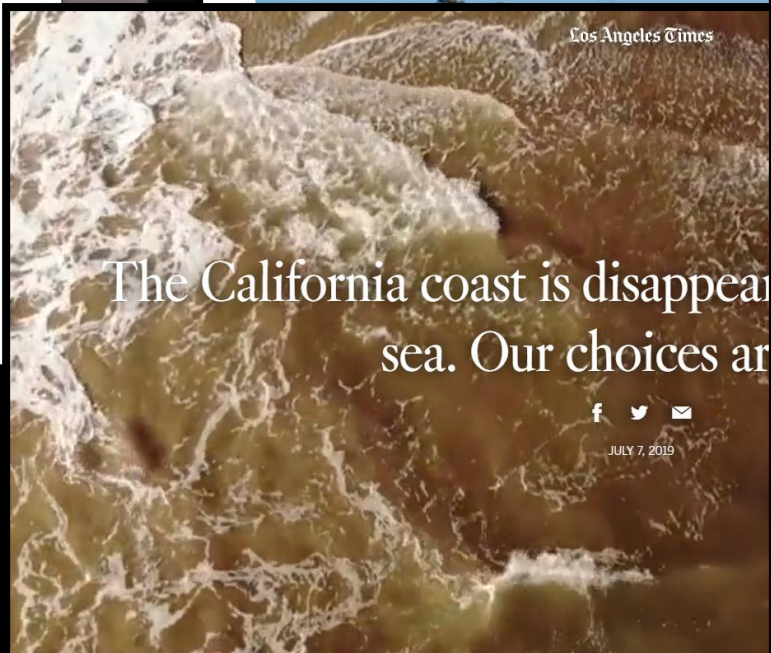
UPDATE: Bluff collapse on popular Encinitas beach kills three

by Abraham Jewett August 2, 2019 1084

A bluff collapse at Grandview Surf Beach killed three adult beachgoers and injured two others in the Leucadia neighborhood of Encinitas on Aug. 2.

The collapse happened shortly before 3 p.m. and left a pile of dirt and rock up to 10 feet in height.

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The California coast is disappearing into the sea. Our choices are...



JULY 7, 2019

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WILDFIRES

Year after blaze, neighbor city strains under 20K new people

Published: Friday, November 8, 2019

Amber Blood got to Chico on Nov. 8, 2018, wearing pink slacks and her favorite white peacoat. It was all she had left.

Blood was among tens of thousands forced to flee as a wildfire roared through Paradise and nearby communities in Northern California, killing 85 people and destroying roughly 19,000 buildings.

Nothing burned in Chico, the closest big city. And within hours, another city had moved in — filling up hotels, living in trailers, sleeping on friends' couches and buying up every available home, apartment and spare room.

A year later, most are still there. State officials estimate Chico has added 20,000 people, boosting the population from 92,000 to more than 112,000. The city didn't expect that number until at least 2030.

"We all feel lost, still," said Blood, who has since bought a home in Chico. "This house is beautiful, and I don't even feel like it is my home. It's weird."

What's happened in Chico in the year since California's deadliest wildfire shows how blazes — growing more frequent and destructive with climate change — have lasting effects far beyond the flames.

"You normally would have a decade to prepare for such growth," Chico Police Chief Michael O'Brien said. "We had about 10 hours."

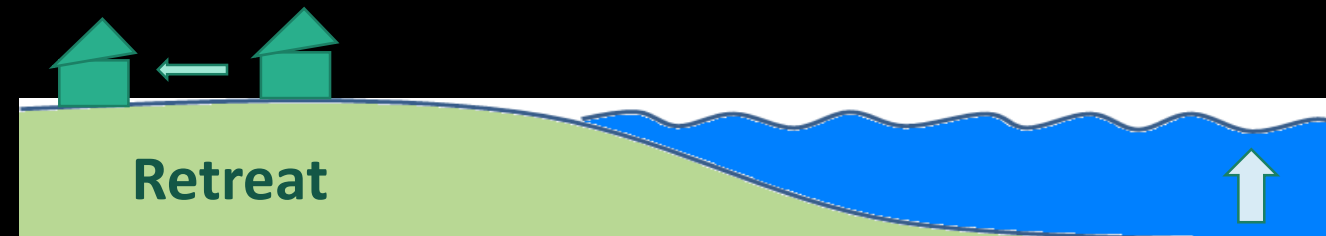
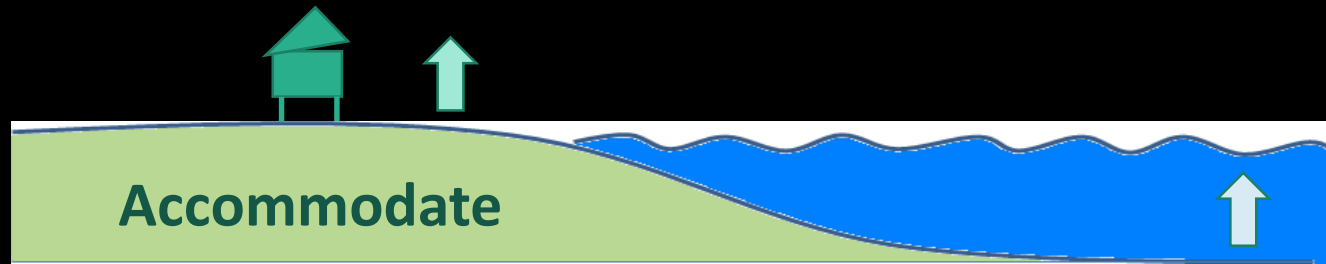
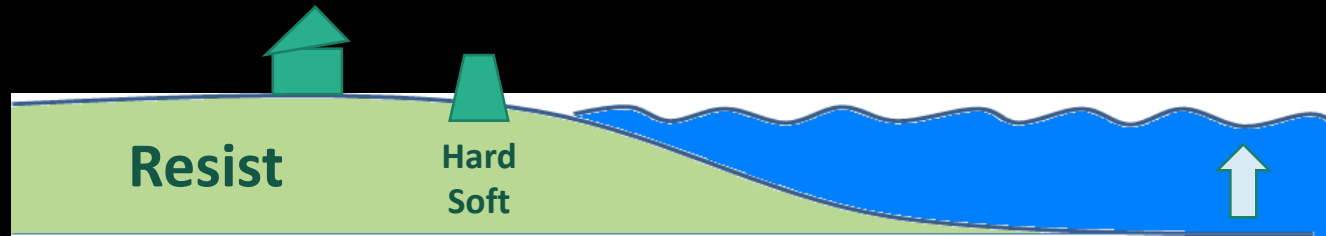
Chico officials say they need close to a half-billion dollars to improve infrastructure and hire enough police officers and firefighters to cover the surge in people. But because the city is outside the burn area, it isn't eligible for most state and federal disaster funds. The most it's gotten is \$3 million from the Legislature.

Aside from housing shortages and more traffic, the influx has strained the city in unexpected ways. About three weeks after the fire, Chico's sewer system was handling an additional million gallons a day, or the equivalent of adding an extra 5,000 homes.

City officials had hoped the increase was temporary. But now, the system is handling an additional 600,000 gallons a day from fire survivors, costing an extra \$53,000 per month. That's money Chico doesn't have.



FLOOD ADAPTATION STRATEGIES



e.g., Burby and Nelson, 1991; Deyle et al., 2007; Titus, 1998

Blade Runner 2049

Los Angeles, CA



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"Without a beach in Del Mar, we're not Del Mar,"
said Councilman Dwight Worden.
- quoted by J. Horn, News10 San Diego, 23 Oct 2019





For the latest on wildfires [click here](#)



11 AWESOME SURFING SPOTS

SCROLL TO DISCOVER



Disappearing Beaches: Modeling Shoreline Change in Southern California



31-67% of SoCal beaches projected to be completely lost by 2100
- USGS



WORLD NEWS SEPTEMBER 3, 2019 / 1:58 PM / 2 MONTHS AGO

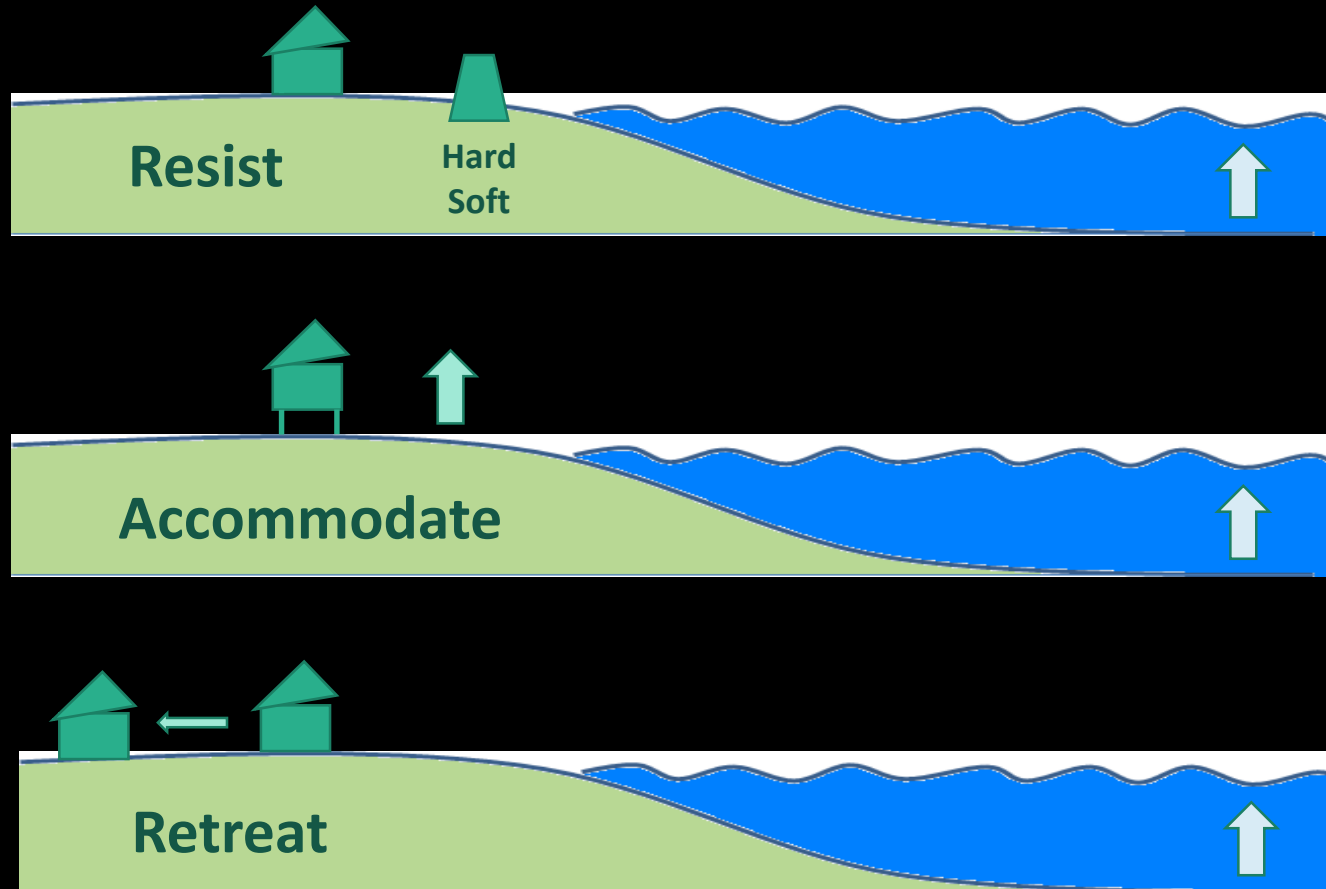
Sisyphus on the beach: Dorian underlines coastal cities' endless rebuilding task

Zachary Fagenson

4 MIN READ



FLOOD ADAPTATION STRATEGIES



e.g., Burby and Nelson, 1991; Deyle et al., 2007; Titus, 1998

Resources required



Coordinated

Organized relocation of whole community



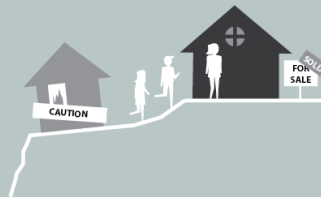
Assisted

Support in moving, including identifying or creating housing options



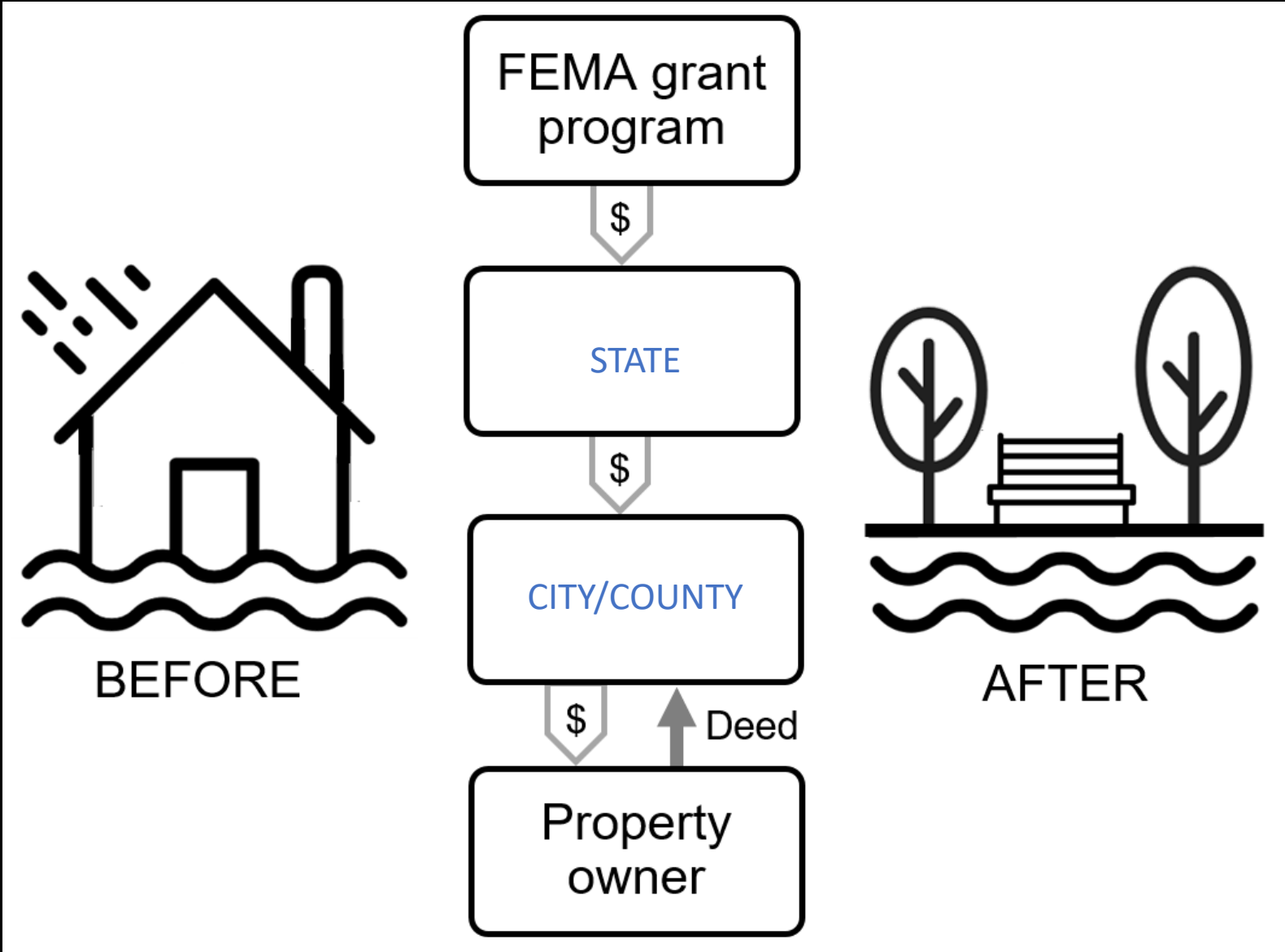
Funded

Compensation for loss of property and moving costs

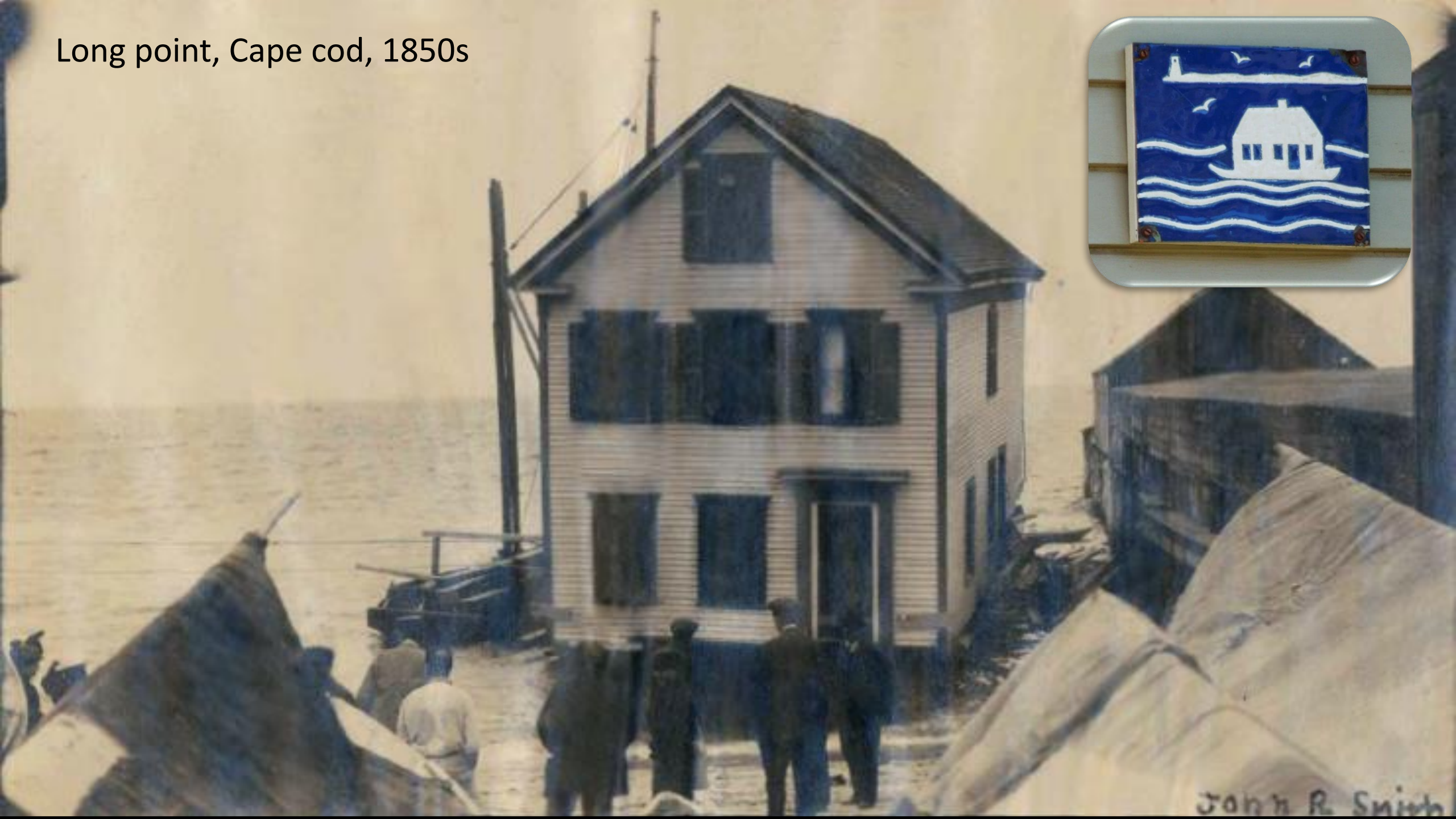


Nudged

Incentives to relocate to safe areas at own cost

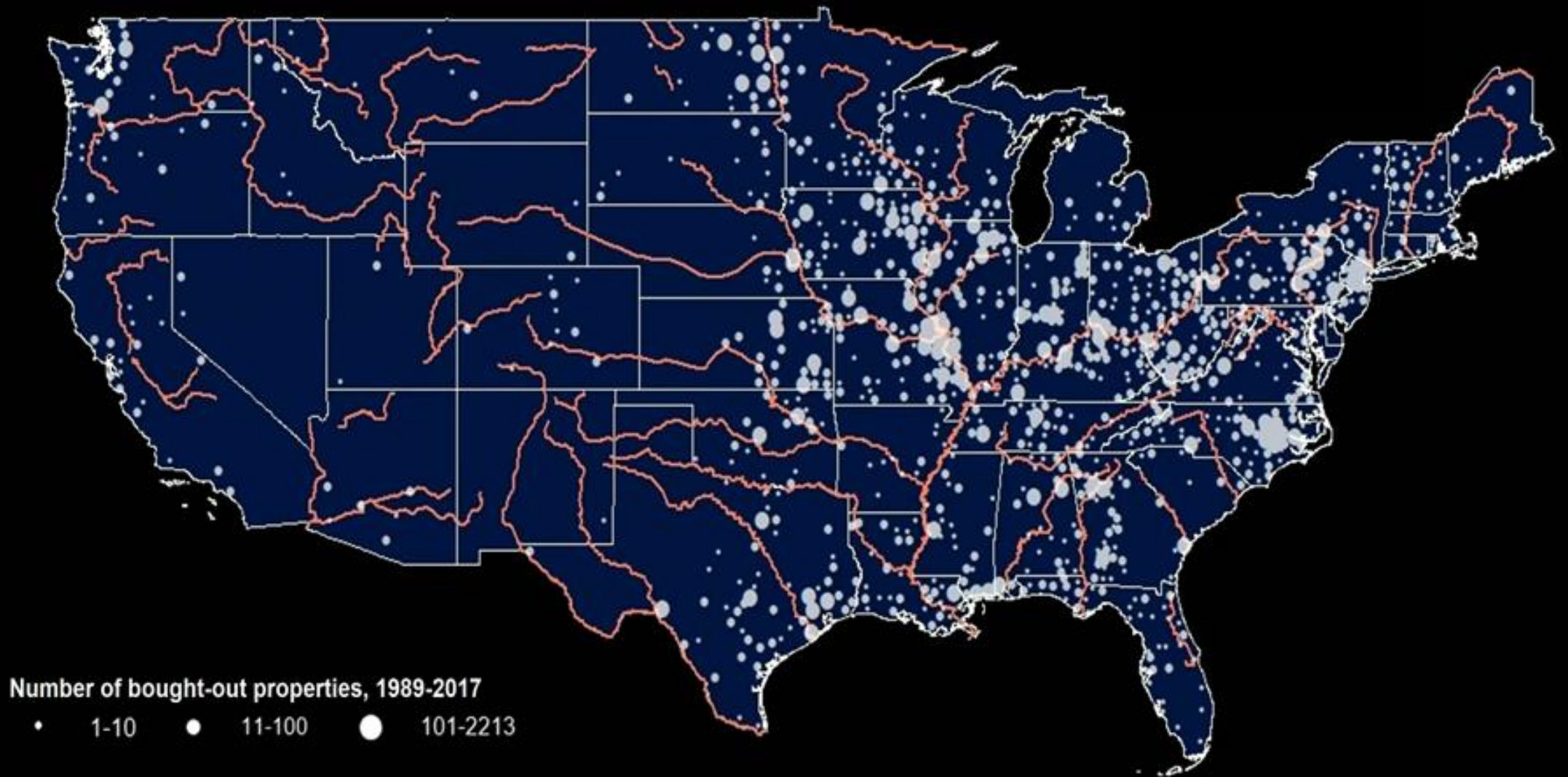


Long point, Cape cod, 1850s

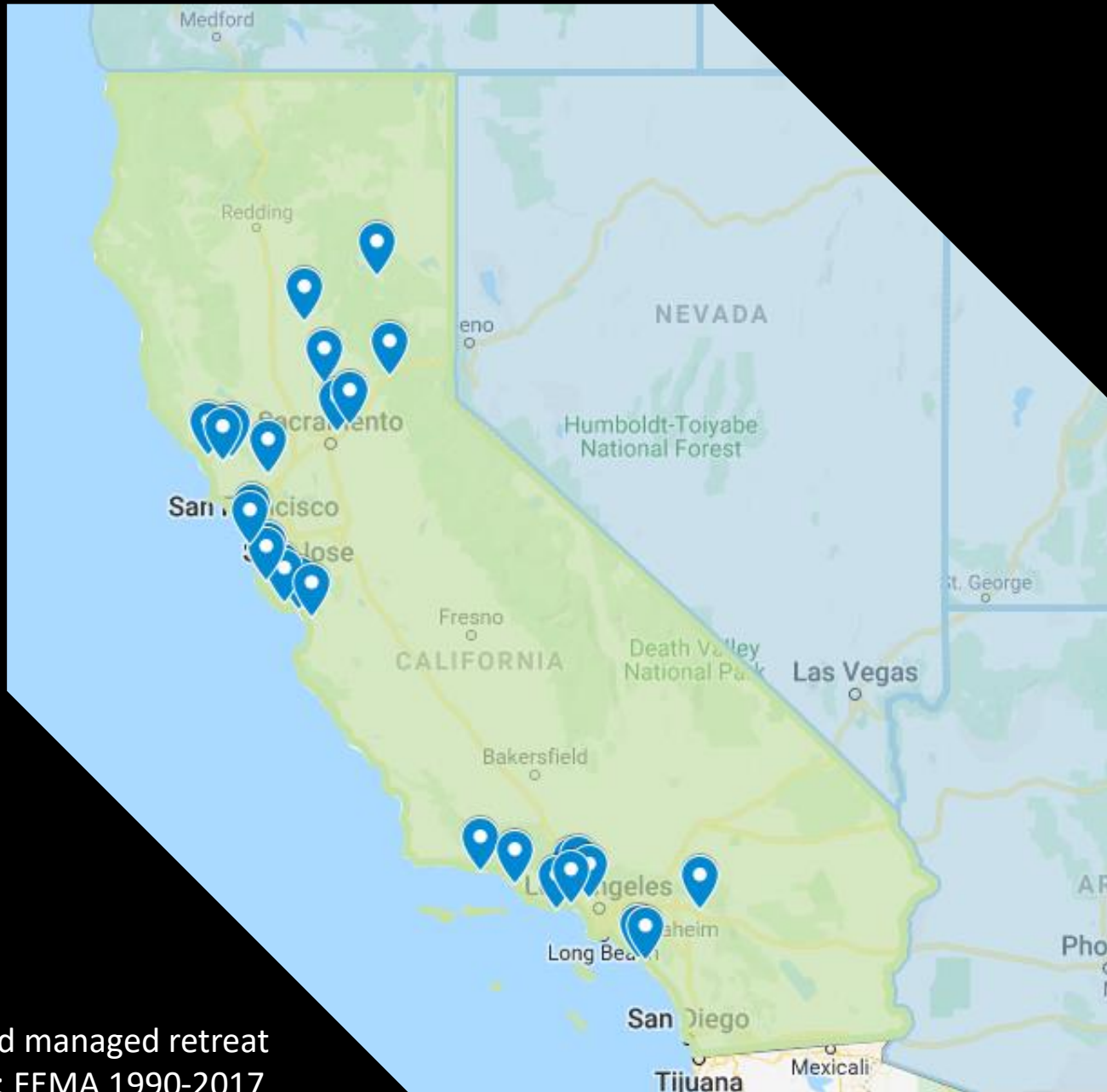


John R. Smith

FEMA-FUNDED PROPERTY ACQUISITIONS

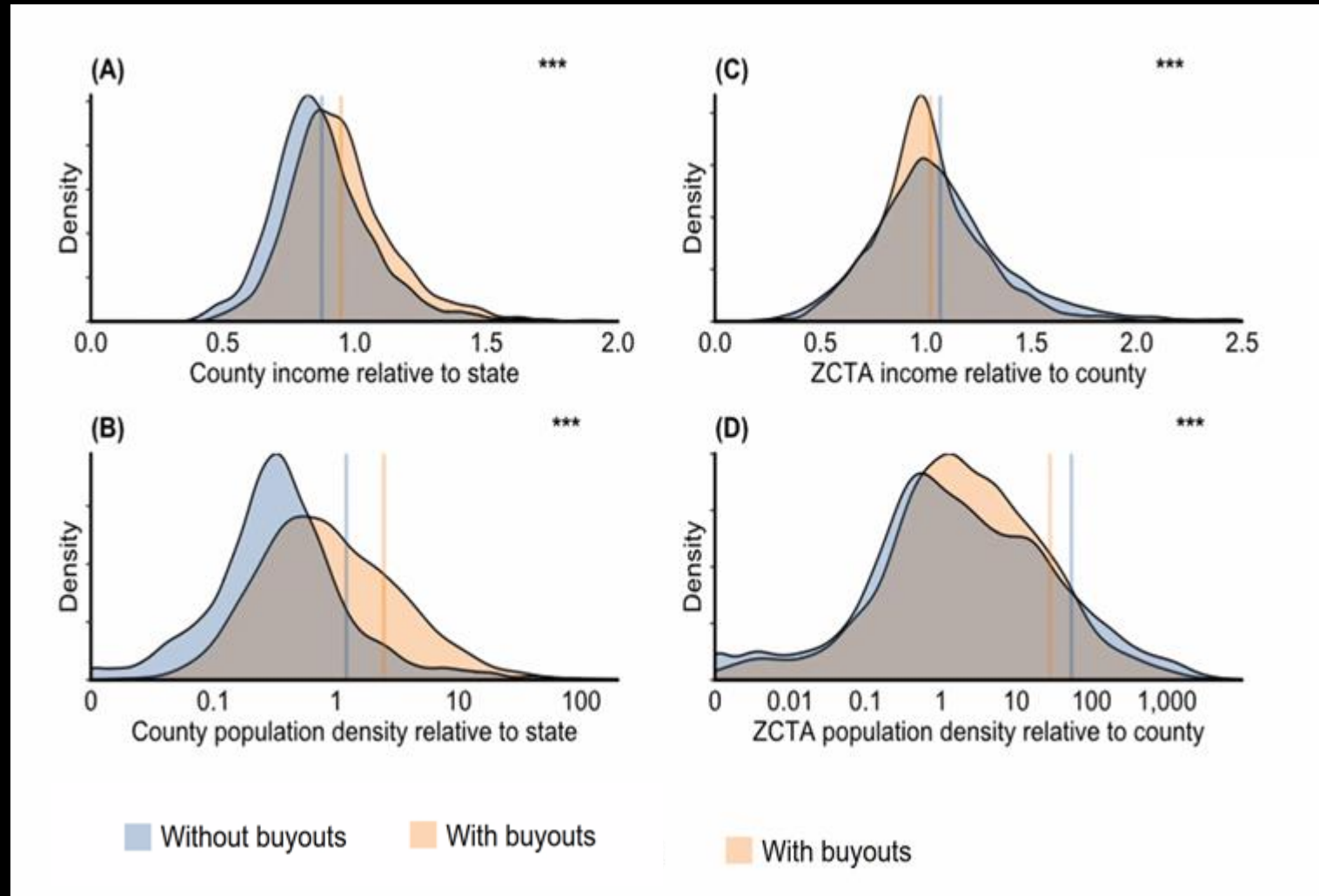


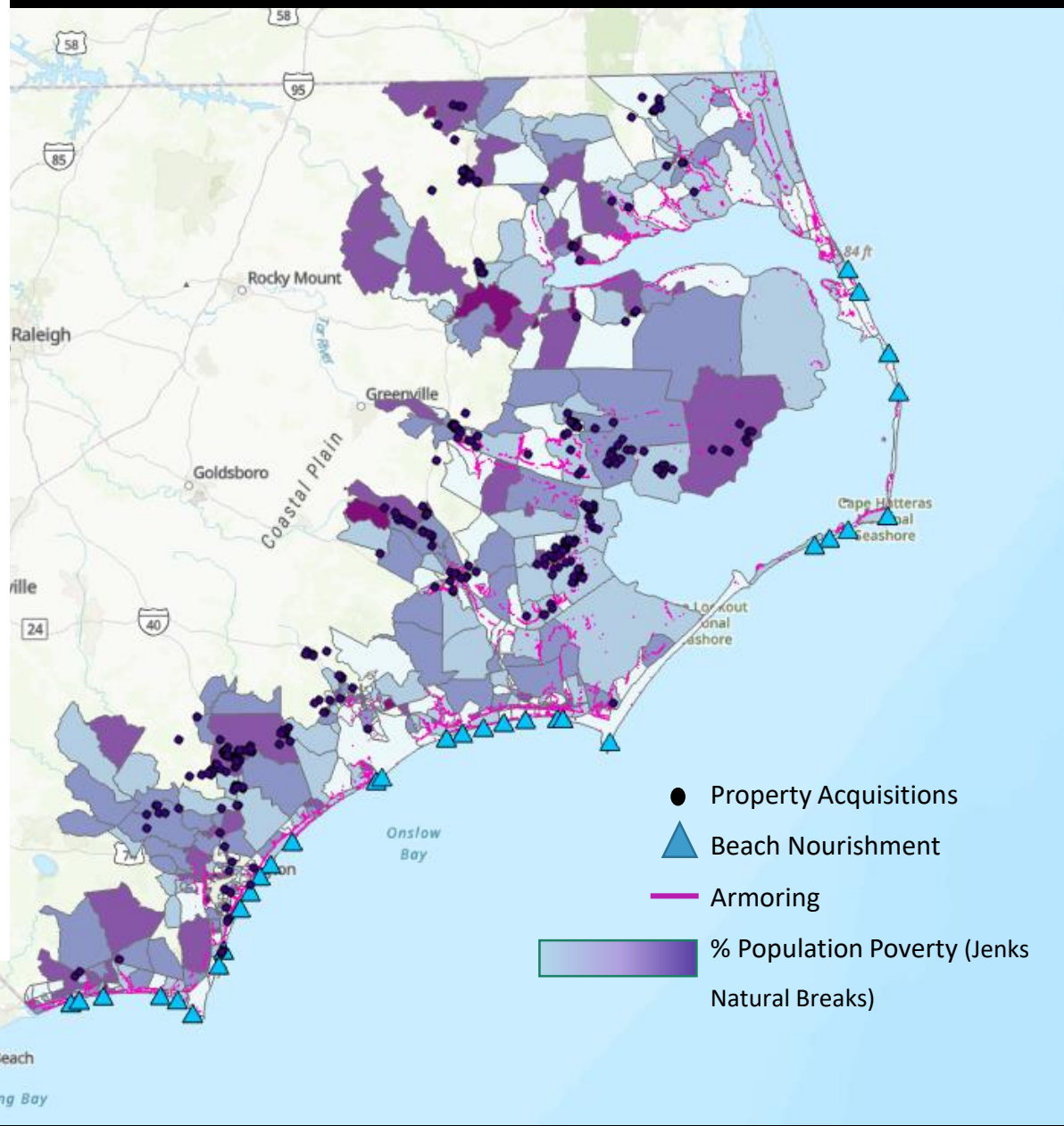
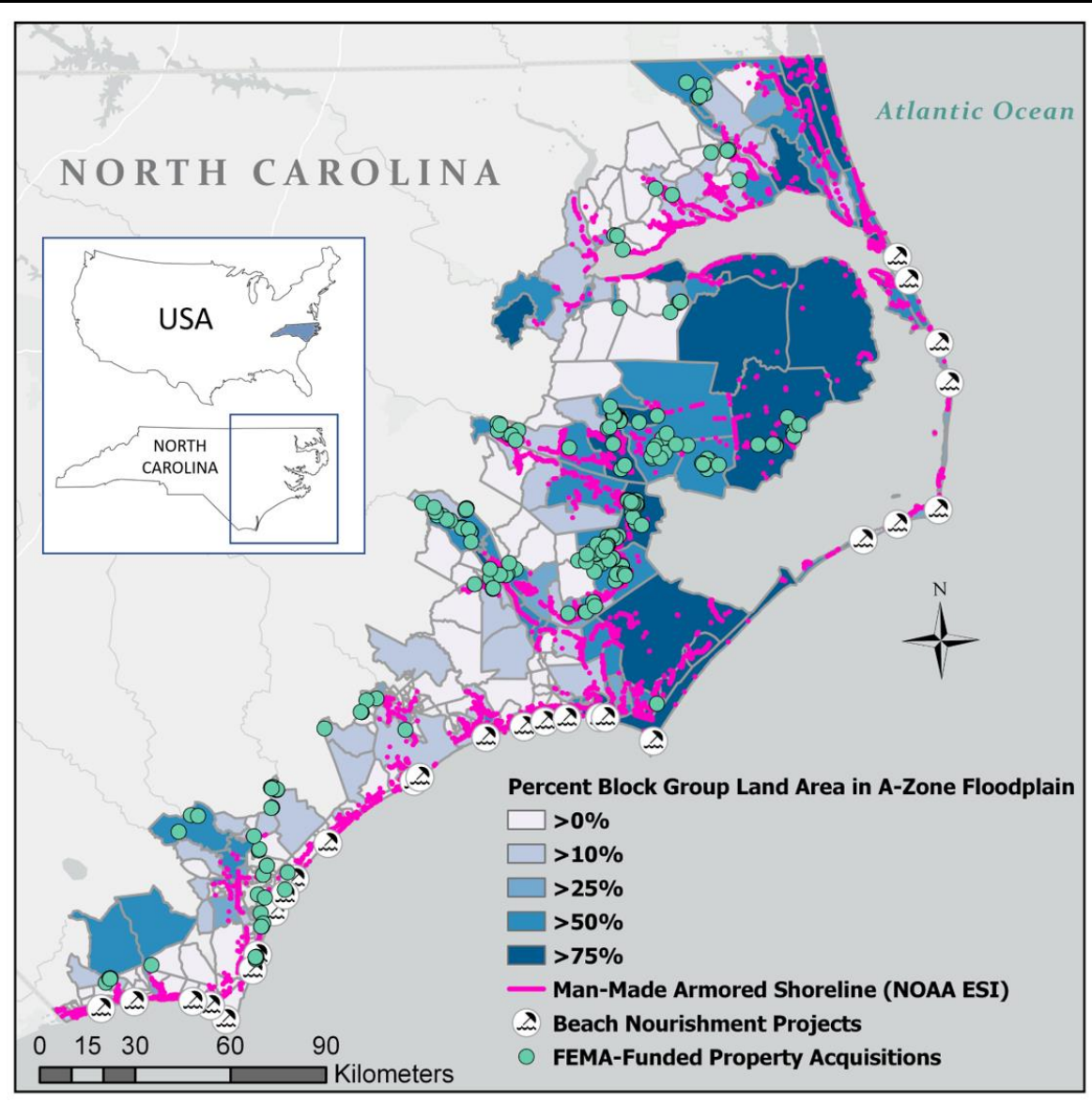
Mach et al., Science Advances 2019



FEMA-funded managed retreat
Data Source: FEMA 1990-2017

HIGH CAPACITY ADMINISTRATORS – LOW CAPACITY RESIDENTS





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Search The Thousands Of Disaster Buyouts FEMA Didn't Want You To See

March 5, 2019 · 3:44 AM ET



An NPR investigation found that white communities nationwide have disproportionately received more federal buyouts after a disaster than communities of color. Federal disaster aid is allocated based on a cost-benefit calculation meant to minimize taxpayer risk. That means money is not necessarily doled out to those who need it most but rather to those whose property is worth more — and to those who own property in the first place. That mirrors the existing racial wealth gap in the United States.



Adaptation privilege and Voluntary Buyouts: Perspectives on ethnocentrism in sea level rise relocation and retreat policies in the US

Elizabeth Marino

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<https://doi.org/10.1016/j.gloenvcha.2018.01.002>

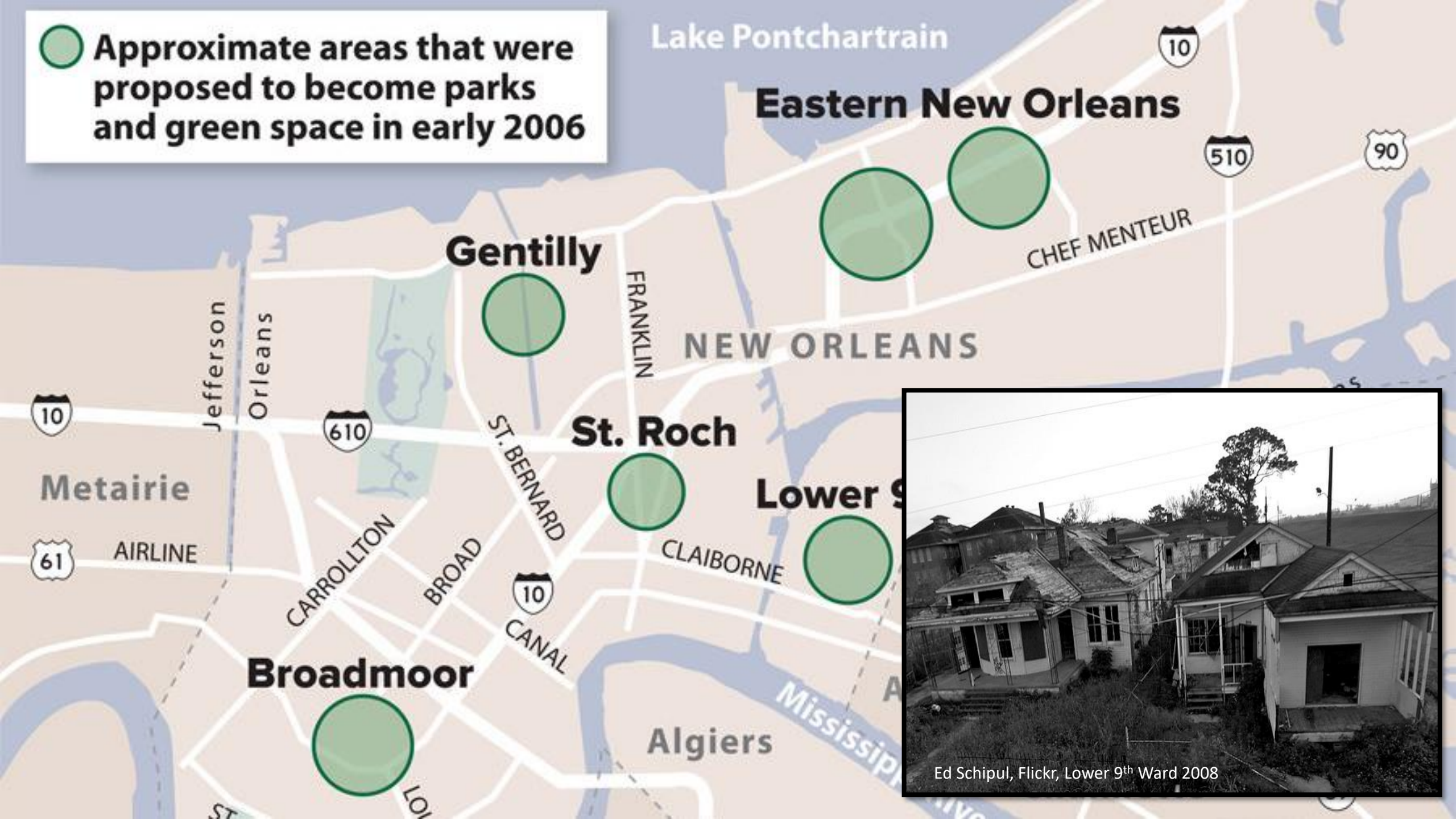
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Abstract

The coast is a highly populated environment that is under increasing risk because of sea level rise (SLR) and climate change. Social science predicts that social and political systems will habitually privilege certain communities and disadvantage others under conditions of risk and disaster. This paper tests that supposition on a particular disaster policy in the United States. Voluntary buyouts are a policy tool in the US that has the potential to help communities adapt to SLR. While buyouts have

in the past, there is some indication that they are becoming more popular. Despite increased popularity, communities in Alaska who need because of repetitive flooding and sea level rise do not meet the basic requirements of the buyout program in a way that makes this policy applicable to them. We find that notions of the market, property, and individualism are assumptions inherent to the buyout policies, which ultimately serve to disadvantage tribal communities as they attempt to relocate as an adaptation to climate change. This analysis suggests that adaptation policies to climate change themselves, can limit the inventory of possibilities that some communities can see from, and re-entrench inequity in the face of risk.

○ Approximate areas that were proposed to become parks and green space in early 2006



Ed Schipul, Flickr, Lower 9th Ward 2008

BUILT TO FLOOD

Brutal Choice in Houston: Sell Home at a Loss or Face New Floods

By Audra D. S. Burch

March 30, 2018



Houston Chronicle

Developing Storm | Part 2

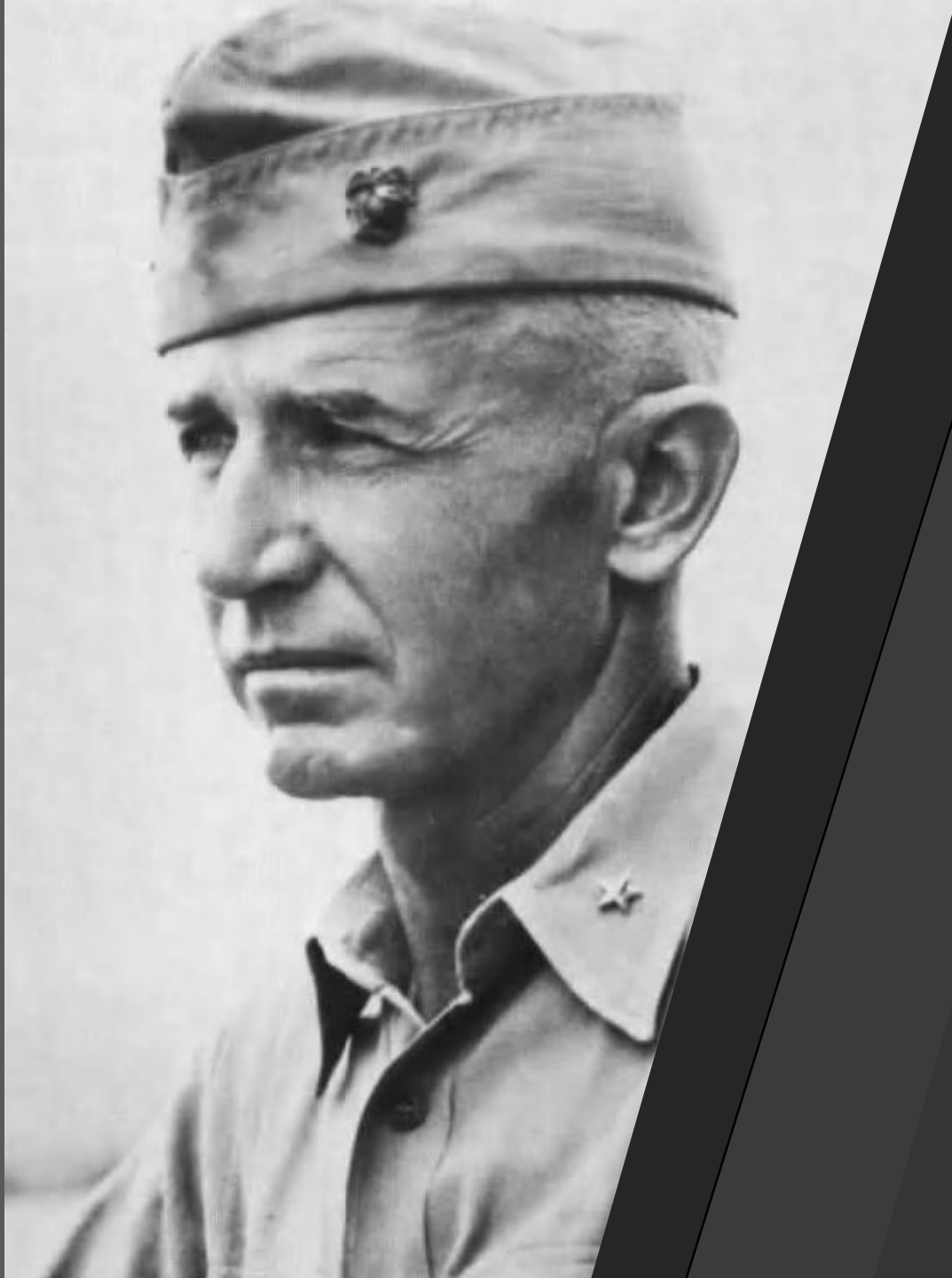
Build, flood, rebuild: flood insurance's expensive cycle

By David Hunn, Ryan Maye Handy, and James Osborne





New Orleans
Photo: Bart
Everson
Flickr, CC2.0



"Retreat, Hell!
We're just advancing in a
different direction."
- USMC General Oliver P.
Smith

national seashore

w/ Rosetta Elkin

D. Stone
Essex Heritage

Sometimes, to move in a new direction, you have to step back

Questions?

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