



**WILD COAST
COSTASALVAJE**



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Imperial Beach Mayor Brian Bilbray radios police to remove demonstrators trying to stop Tijuana river dikes. Environmentalists (from left) Serge Dedina, Ben Holt and Jack Burns protest city officials' actions. Sewage from Mexico flowing through the Tijuana Valley has been one of the most persistent problems of the region. (*Imperial Beach Star-News* June 22, 1980)







**MISSION: CONSERVE COASTAL AND MARINE ECOSYSTEMS
AND ADDRESS CLIMATE CHANGE THROUGH
NATURAL SOLUTIONS**



**INTERNATIONAL TEAM: U.S. AND MEXICO
OFFICES IN SAN DIEGO, ENSENADA, LA PAZ, DF, HUATULCO**



**40,000-ACRE WILDCOAST VALLE DE LOS CIRIOS
COASTAL RESERVE, BAJA CALIFORNIA**





LA JOLLA





NATURAL CLIMATE SOLUTIONS

BLUE CARBON ECOSYSTEMS

**MANGROVE
FORESTS**

**SALT
MARSHEs**

**SEAGRASS
BEDS**





**CALIFORNIA
COASTAL SALT MARSH/RIPARIAN RESTORATION**

WORK WITH LOCAL COMMUNITIES BLUE + GREEN JOBS

WILDCOAST
COSTASALVAJE



ESTERO EL DATIL, BAJA CALIFORNIA SUR



CODE RED

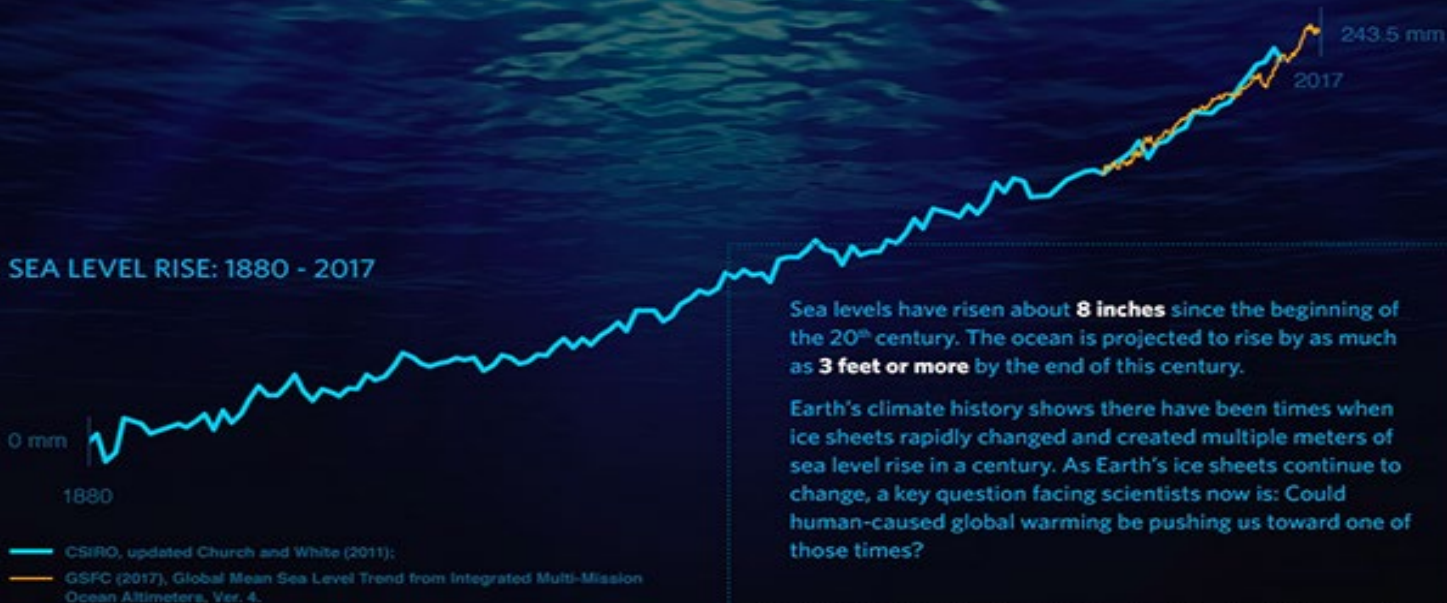


CLIMATE CHANGE

IMPERIAL BEACH

AS OUR OCEAN WARMS, SEA LEVEL RISES

We know seas are rising and we know why. The urgent questions are by how much and how quickly.



L

San Francisco

Los Angeles

Plume of moisture
being pulled in by
low-pressure system



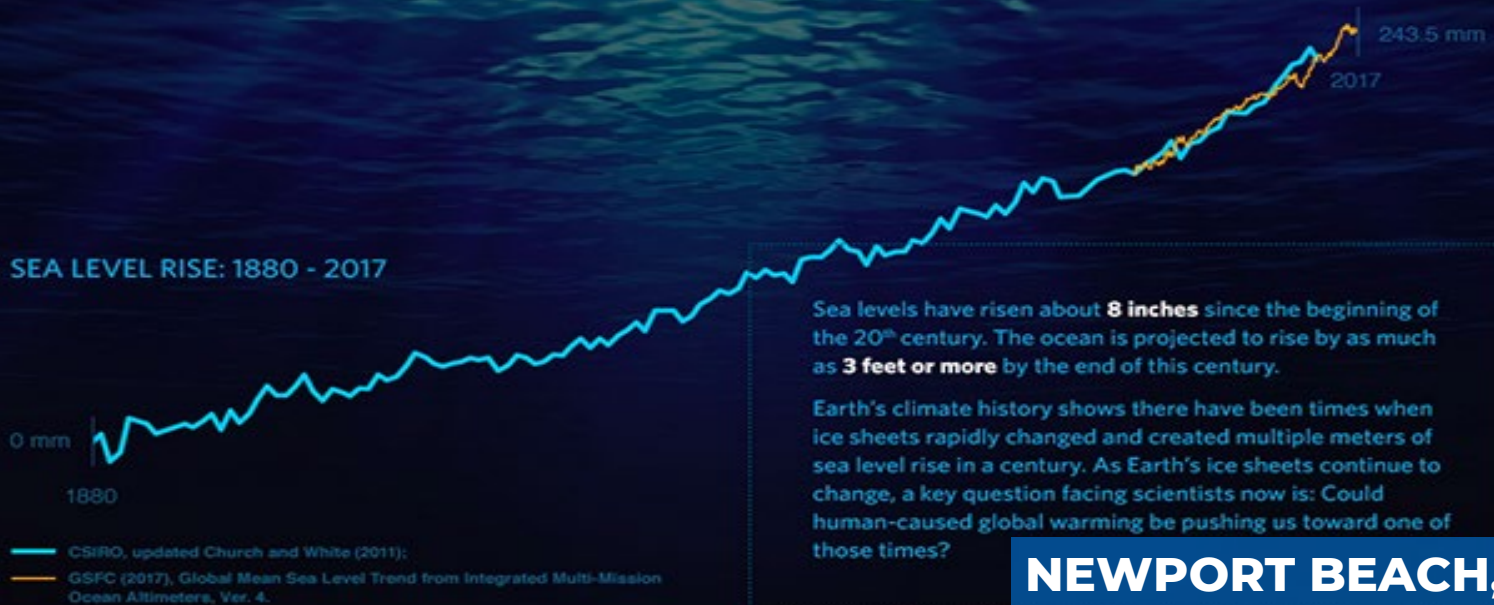
Santa Cruz SOURCE: SC SENTINEL



Montecito
POP 10,000 ELEV 193

AS OUR OCEAN WARMS, SEA LEVEL RISES

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NEWPORT BEACH, CA
JULY 4, 2020



Del Mar SOURCE: SANDAG



San Clemente SOURCE: LA TIMES



San Clemente SOURCE: OC REGISTER



**LOCAL COASTAL
PLAN UPDATE**

HERE IS WHAT THE PUBLIC HEARD

TRIGGER

(THE GOVERNMENT IS GOING TO PUT A GUN TO MY HEAD)

MANAGED RETREAT

(AND TAKE MY HOME)

California Wildfire Mitigation Program

As part of the State of California's effort to strengthen community-wide resilience against wildfires, the California Governor's Office of Emergency Services (Cal OES) has partnered with the California Department of Forestry and Fire Protection (CAL FIRE) to develop a state home hardening initiative to retrofit, harden, and create defensible space for homes at high risk to wildfires, focusing on high socially-vulnerability communities and providing financial assistance for low- and moderate-income households. Governor Gavin Newsom signed Assembly Bill 38 in 2019 authorizing Cal OES and CAL FIRE to enter into a joint powers agreement to oversee the development and implementation of the Program.

Known as the Home Hardening Program, this effort encourages cost-effective wildfire resilience measures to create fire-resistant homes, businesses, public buildings, and public spaces. Mitigation measures such as home hardening, vegetation management, defensible space, and other fuel modification activities provide neighborhood or community-wide benefits against wildfire.

What Does Home Hardening Modification Include?



SOLUTIONS

CASE 1: IMPERIAL BEACH



JANUARY 1983 El Niño



IMPERIAL BEACH
California

PROJECT GOALS



IMPERIAL BEACH
California

- Identify Imperial Beach-specific coastal vulnerabilities from sea level rise and coastal hazards
- Identify range of adaptation strategies including tradeoffs and economics
- Recommend strategies that are politically digestible and economically feasible



VULNERABILITY ASSESSMENT SECTORS

- Land Use
- Roads
- Public Transportation
- Wastewater
- Stormwater
- Schools and Parks
- Hazardous Materials



Photo C. Helmer

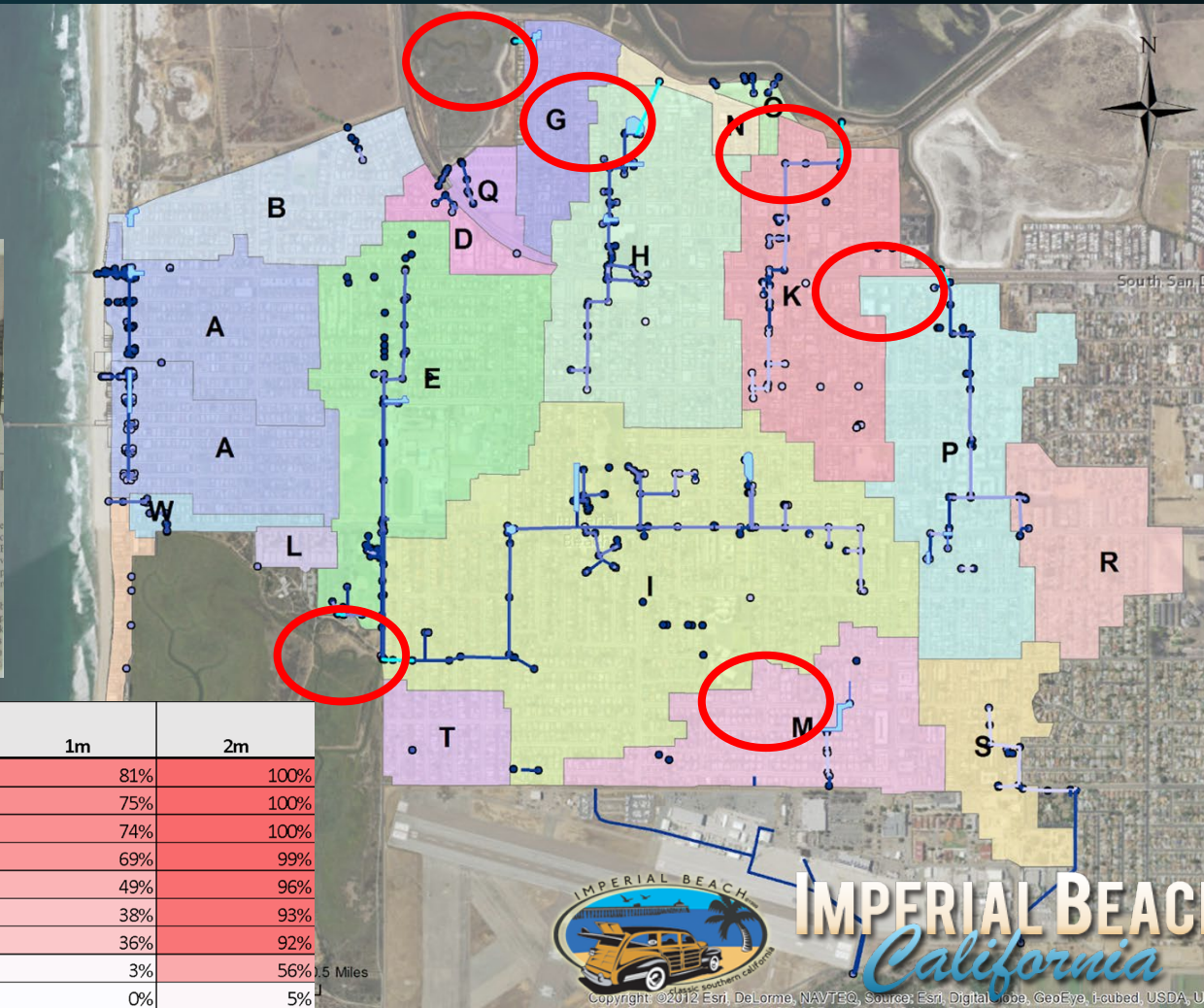


IMPERIAL BEACH
California

FUTURE NUISANCE FLOODING



Self photo by Paul Longworth
 South San Diego residents found taking a boat to this 7-11 store off Palm Avenue much easier than driving Tuesday. Almost five inches of rain was dumped on the South Bay causing widespread flooding, electrical problems and traffic congestion.



Drainage Basin	Elevation top of Pipe - (ft NAVD)	Baseline	0.5m	1m	2m
I	4.3	18%	49%	81%	100%
G	4.7	12%	40%	75%	100%
I	4.8	11%	38%	74%	100%
I	5.1	8%	32%	69%	99%
H	6	2%	16%	49%	96%
I	6.5	1%	10%	38%	93%
K - P	6.6	0%	9%	36%	92%
K - P	9	0%	0%	3%	56%
E	12.1	0%	0%	0%	5%



IMPERIAL BEACH
 California



KEY FINDINGS

- Storm water – substantial decrease in stormwater capacity
- Land Use – parcels and buildings 30%
- Roads – 40% of all roads impacted
- Most vulnerable neighborhoods –
 - South Sea Coast
 - North of Palm Ave/Carnation
 - Neighborhood around Bayside Elementary





450 **Wildlife** 450

Wildlife

Wildlife is an important part of our coastal ecosystem. It provides a natural buffer against storms and helps maintain the health of our coastal resources. We encourage you to observe wildlife from a safe distance and avoid disturbing their natural habitat.

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Flamingo Trail Node Concept - 7th Street



1. Grassy Mound/ Overlook
2. Sculptural Trellis
3. Staging Area/ Bench
4. Bike Path with Paving Markers
5. DG Pedestrian Trail
6. Gravel Shoulder
7. Boardwalk
8. Concrete Wall (3' to 5'tall)
9. Planted Berm

DRAFT - 8/2/2022 - For Discussion Only All images are shown to illustrate planning concepts only and do not represent a design, project or development proposal

Recommended
*Bayshore Bikeway
Resiliency Project*
Development Concept



CASE 2: SURFERS POINT, VENTURA



SURFRIDER
FOUNDATION



Surfers' Point, California



eroded bike path

2010



new bike path

parking lot and road replaced with expanded beach & dunes

2013



SOURCE: SURFRIDER FOUNDATION



at Seaside Park



SOURCE: GOOGLE



Figure 3: Cardiff State Beach (A) before installation of the Living Shoreline and (B) after installation of the Living Shoreline

SOURCE: CITY OF ENCINITAS

Tower 16

San Elijo Water Reclamation



San Elijo Lagoon Nature Center

San Elijo Lagoon State Marine...

Lifeguard Hut Tower 11

SOURCE: GOOGLE



KEEP IT SIMPLE: SAND REPLENISHMENT

INVEST IN NATURAL CLIMATE SOLUTIONS + LANDSCAPE DESIGN



BATIQUITOS LAGOON, SAN DIEGO COUNTY



PILOT PROJECTS



SMALL OUTDOOR MEETINGS

TECH CAN HELP -A LOT



858-530

NEWS

**CITY GETS FLOODING FORECASTING SYSTEM FROM SCRIPPS
IMPERIAL BEACH**



5:11 71°



THANK YOU!

¡GRACIAS!



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COSTASALVAJE**



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