

Strategy Mapping to Guide the Conservation of Coastal Habitats

Walter N. Heady, Brian Cohen, Mary G. Gleason, Joshua N. Morris, Kirk R. Klausmeyer,
Sarah Newkirk, Hilary Walecka, Liz Gagneron, Mary Small







RECURRING
HO
CURRENTS
NO
RECREATION
ON DUTY

WARNING

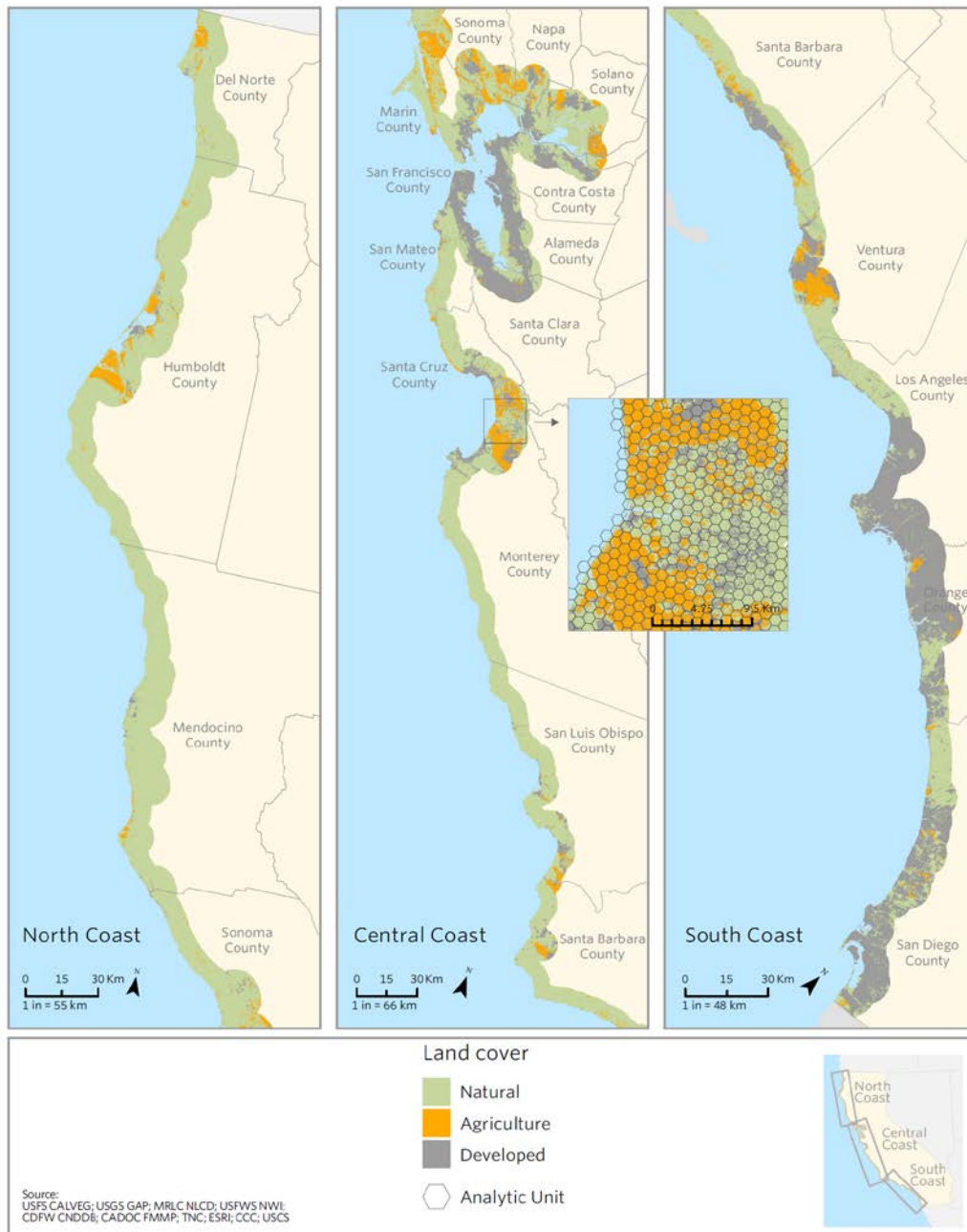






Given sea level rise
and existing land cover and management
is no net loss possible?





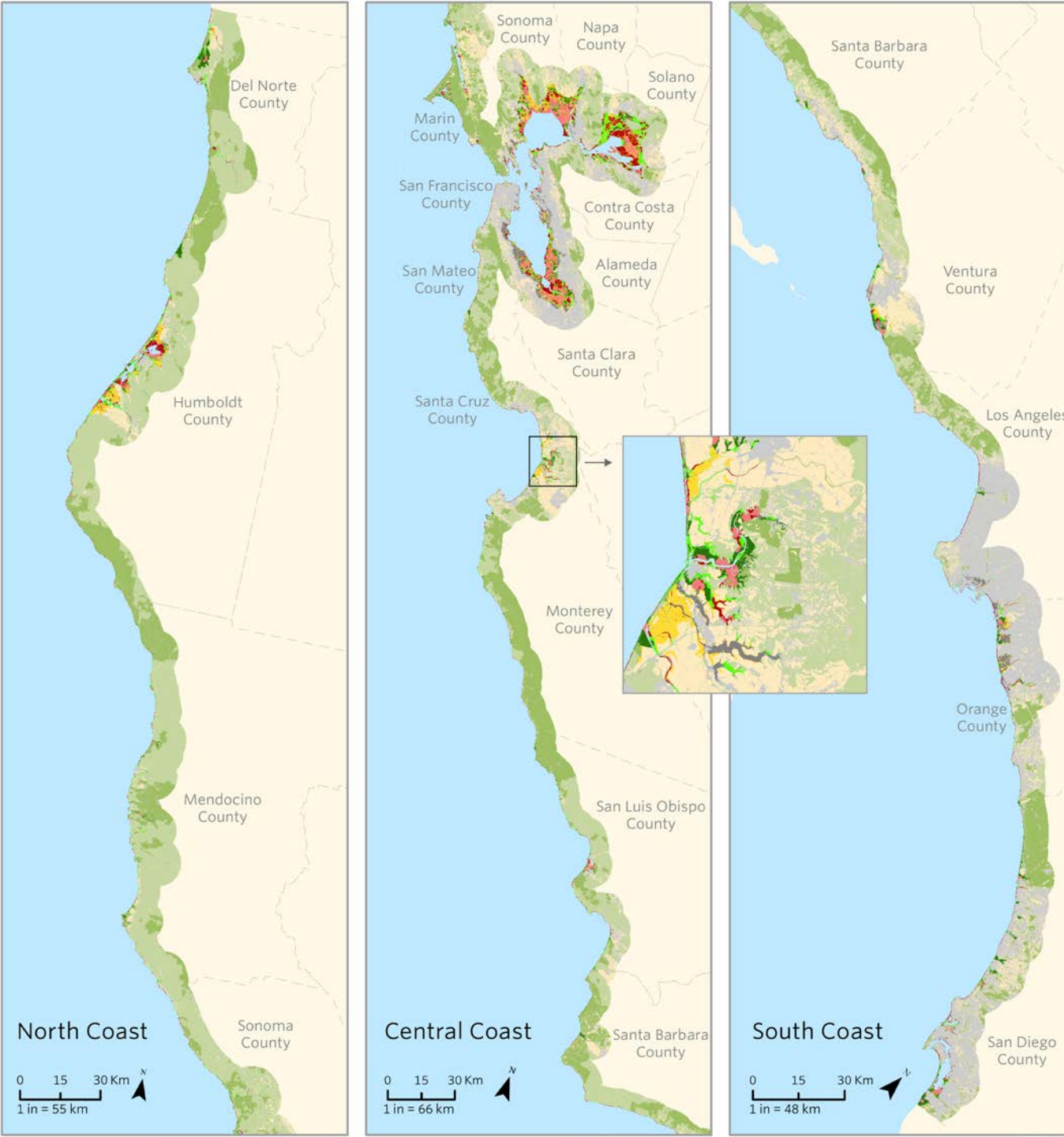
Coastal California

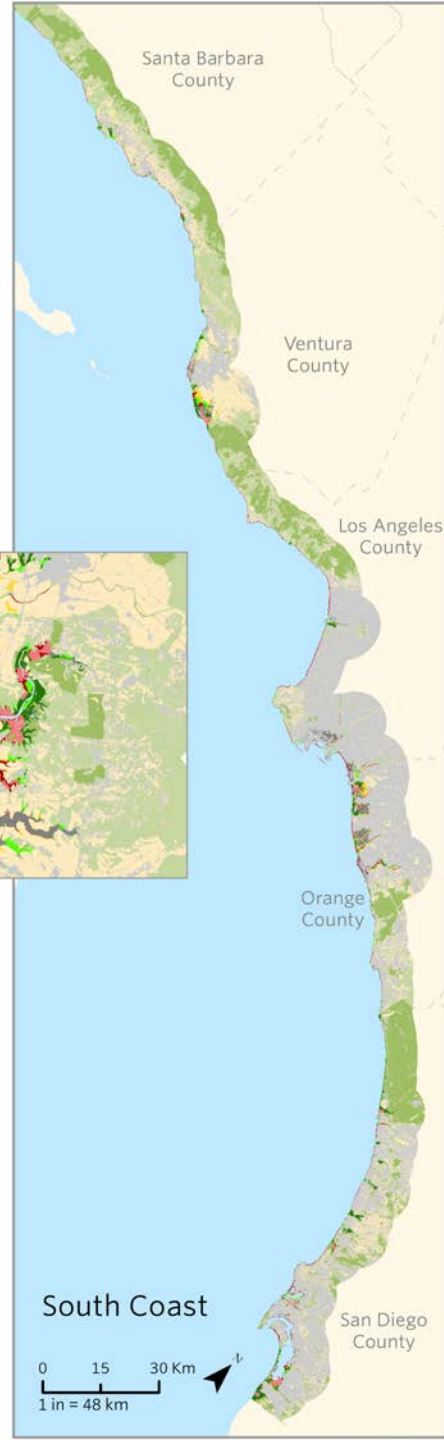
- Biodiverse
- 67% natural habitat
- 31% conserved
- supports 159 imperiled species

Characterized larger coastal area for landscape conservation context

HABITATS:
22 wetland types
18 terrestrial types

BUILT ENVIRONMENT:
17 types





Habitat specific vulnerability

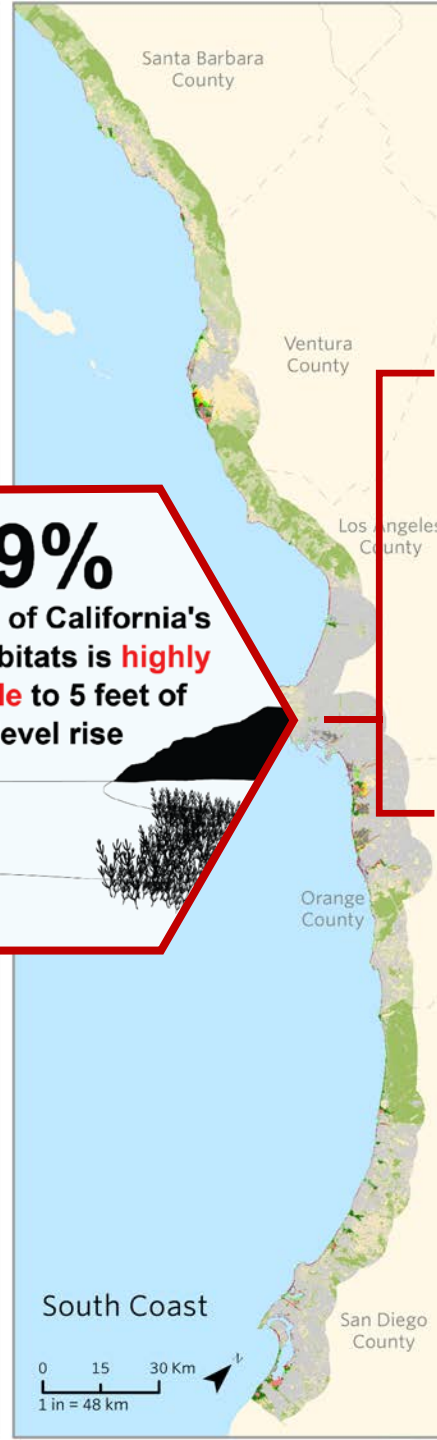
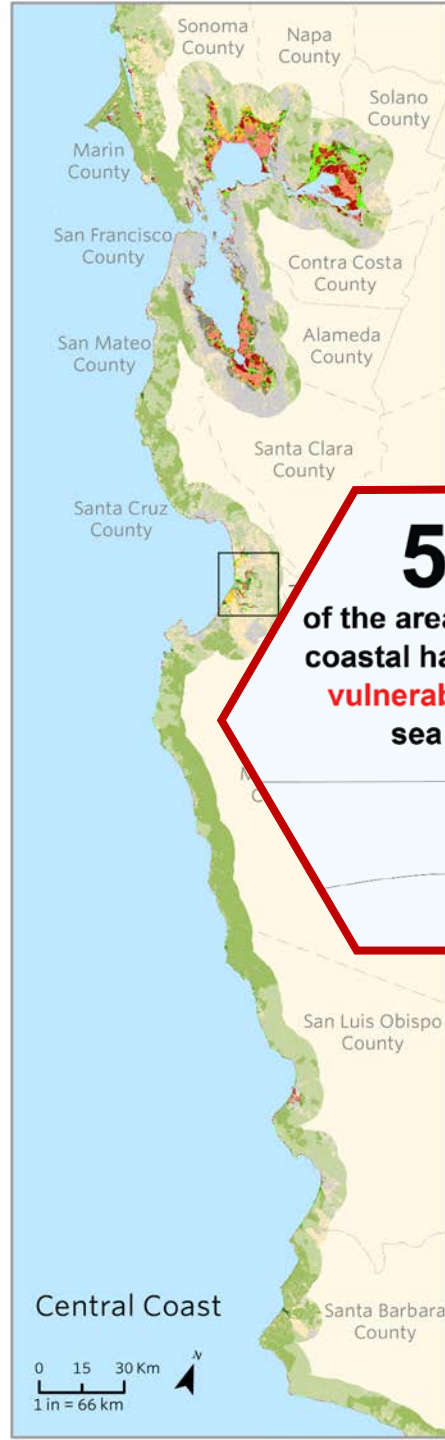
22 wetland types
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- **Resilient Conserved Habitat**
- **Resilient Non-conserved Habitat**
- **Vulnerable Conserved Habitat**
- **Vulnerable Non-conserved Habitat**

Species of concern

159 imperiled species
3 marine mammal
3 shorebird – nesting

- Conserved Habitat
- Non-conserved Habitat
- Undeveloped Uplands
- Built Environment



59%
of the area of California's
coastal habitats is **highly**
vulnerable to 5 feet of
sea level rise

Habitat

Resilient Conserved Habitat
19%

Resilient Non-conserved Habitat
22%

Vulnerable Conserved Habitat
30%

Vulnerable Non-conserved Habitat
29%

Non-Habitat

Potential Future Habitat

Exposed Built Environment

Conserved Habitat

Non-conserved Habitat

Undeveloped Uplands

Built Environment

Conserve and Manage for Resilience

Resilient Conserved Habitat
Maintain the resilience and conservation status of existing conservation land.

Resilient Non-conserved Habitat
Invest in conserving resilient landscapes.

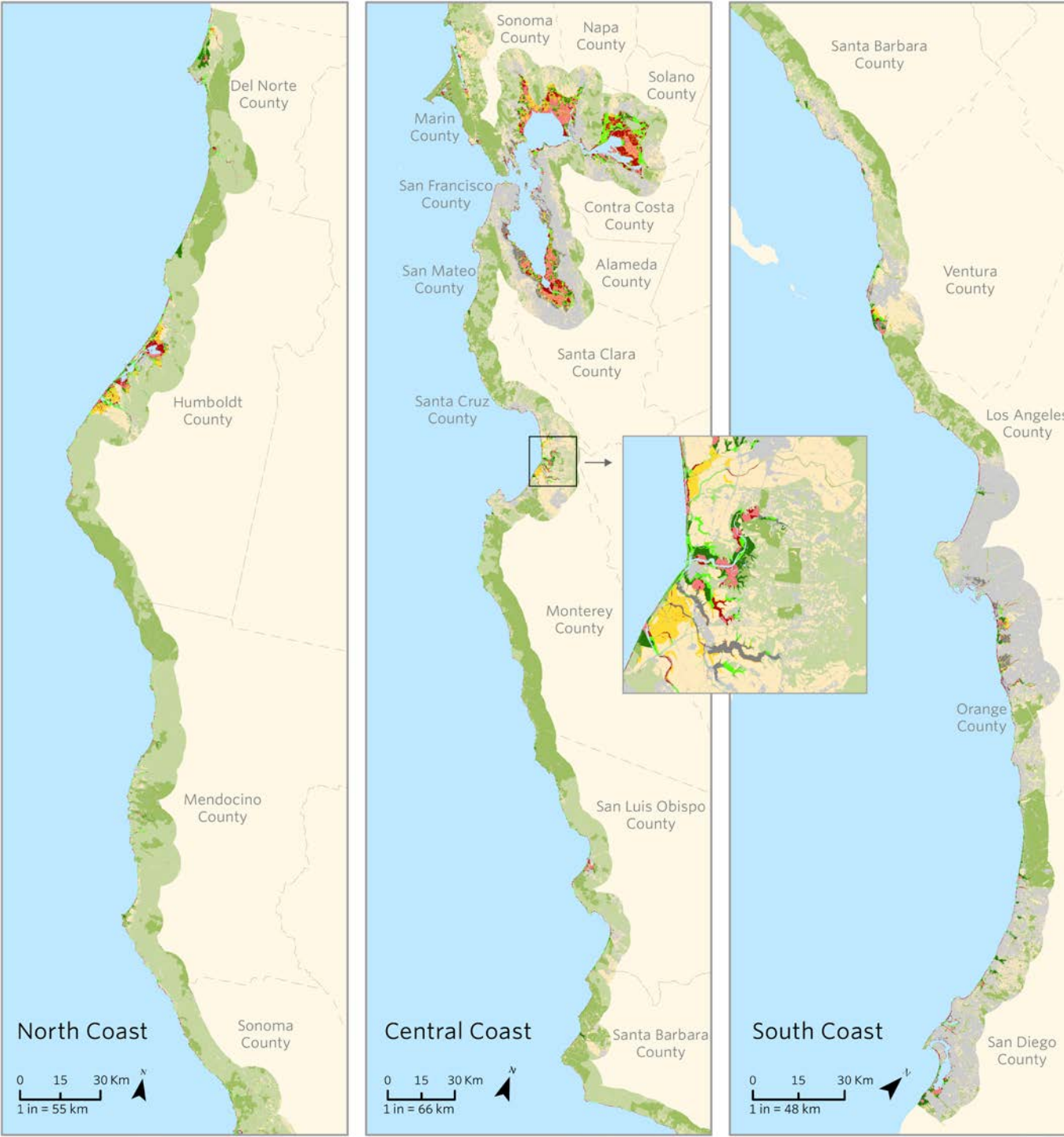
Vulnerable Conserved Habitat
Manage in place for resilience to help habitat keep pace with sea level rise.

Vulnerable Non-conserved Habitat

Potential Future Habitat

Exposed Built Environment

Conserved Habitat
Non-conserved Habitat
Undeveloped Uplands
Built Environment



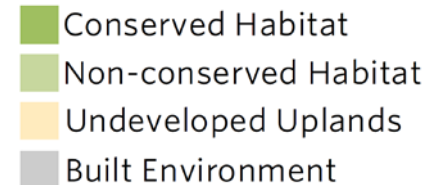


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Mitigate Potential Losses of Vulnerable Habitats

- Vulnerable Non-conserved Habitat**
Mitigate potential losses by adapting adjacent built environment and/or investing in potential future habitat.
- Potential Future Habitat**
Invest in conservation and management that allows vulnerable habitat to transgress inland.
- Exposed Built Environment**
Adapt the built environment to enhance habitat area and function.





61%
We could **mitigate more than half the losses** from subtidal inundation by investing in potential future habitat

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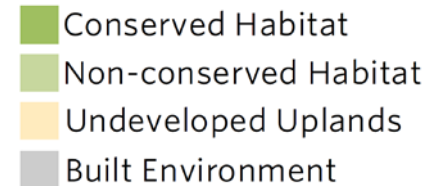


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Conserving California's Coastal Habitats

A Legacy and a Future with Sea Level Rise

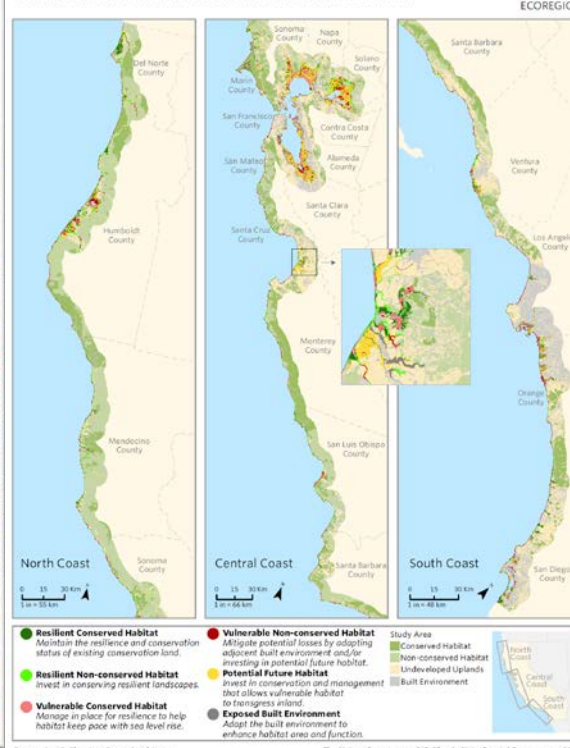
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The Nature Conservancy

Coastal Conservancy

CALIFORNIA COASTAL CONSERVATION ASSESSMENT



Conserving California's Coastal Habitats

The Nature Conservancy & California State Coastal Conservancy, 2018

Sign on
with actionable commitments from:

FEDERAL:

3 National Estuarine Research Reserves

STATE AGENCIES:

California Ocean Protection Council
California State Coastal Conservancy
California Coastal Commission
State Lands Commission

REGIONAL:

San Diego Regional Climate Collaborative
Central Coast Climate Collaborative

COUNTY:

San Mateo County
Ventura County
Santa Barbara County
Los Angeles County Supervisor

MUNICIPAL:

City of Imperial Beach Mayor
City of Oxnard
City of Goleta

<http://coastalresilience.org/project/hope-for-the-coast/>

Hope for the Coast Campaign

VISION:

We will maintain and enhance California's coast in the face of sea level rise, other climate change-induced challenges, and development. By working collectively and guided by science, we will ensure the coast is protected for future generations to enjoy, replete with as much or more habitat and wildlife, as well as social, economic, and recreational benefits, as we have today.

The Nature
Conservancy



Protecting nature. Preserving life.



Coastal
Conservancy

Hope for the Coast

Strategies to Conserve Coastal Habitats in the face of Sea Level Rise

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