Climate Change Transportation Vulnerability Workshop

Existing Climate/Hazard Issues

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Oahu Metropolitan Planning Organization (OahuMPO), the Federal Highway Administration (FHWA), and the Hawai'i Local Technical Assistance Program (LTAP)

Hawaiian Coastal Hazards

These are all exacerbated by rising sea level.

BRUNN RULE: 1:100 Ratio

Studies show a 50-300 x erosion multiplier where sea level rises along sandy shorelines.

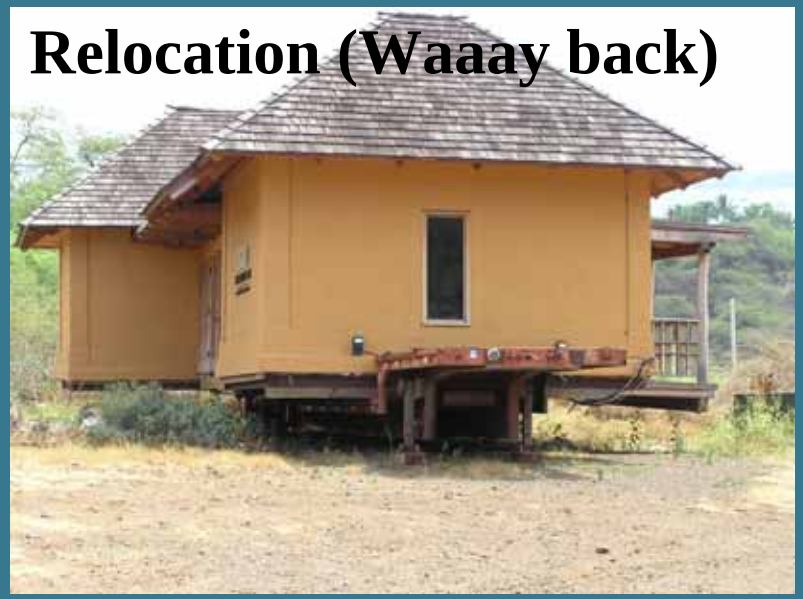
1m Sea Level Rise = 100 m erosion multiplier

With SLR, urban beaches will disappear

QUIKSILV
20
MPH

Need for an integrated policy for shoreline management

How can we adapt to sea level change?

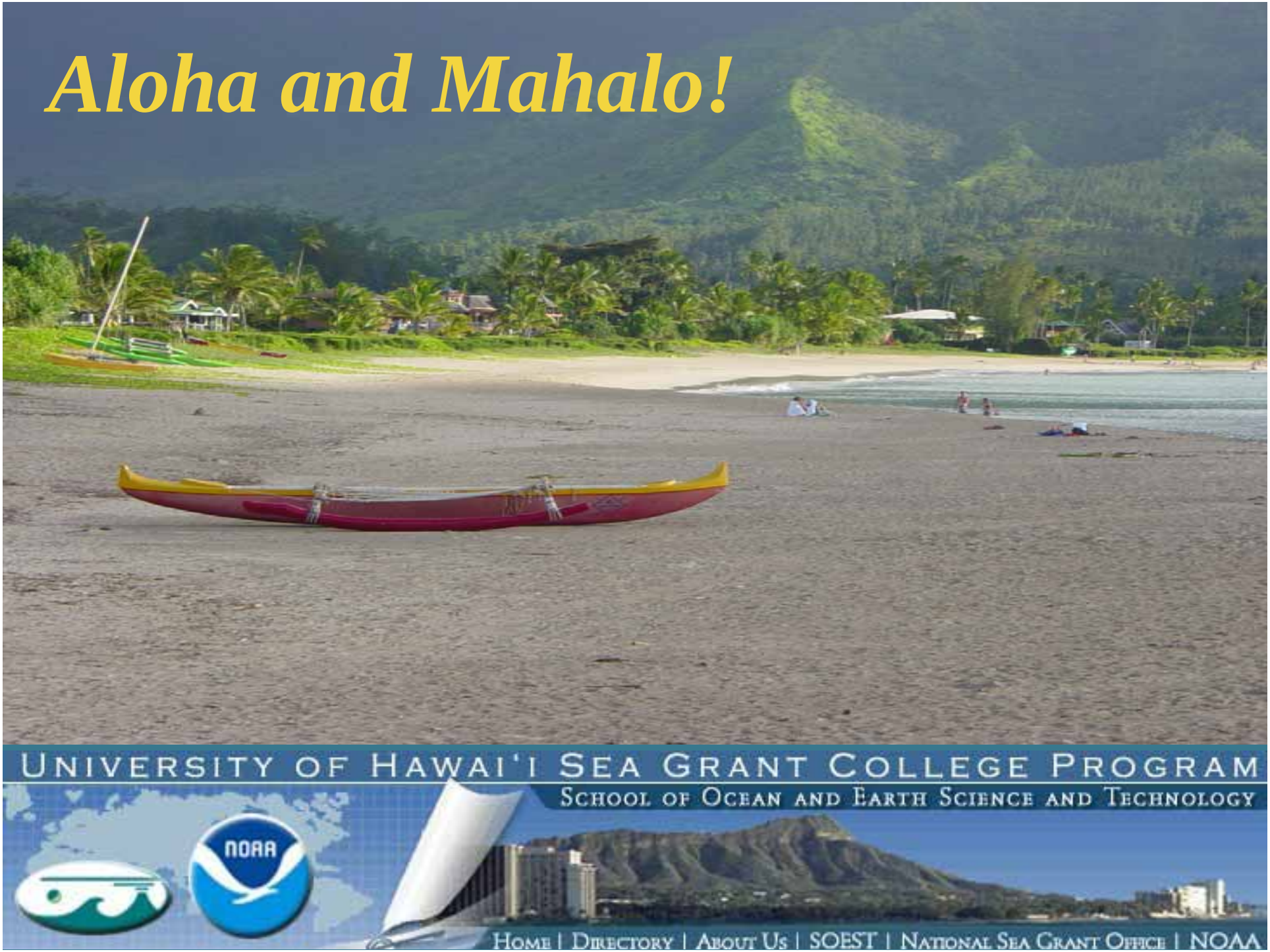


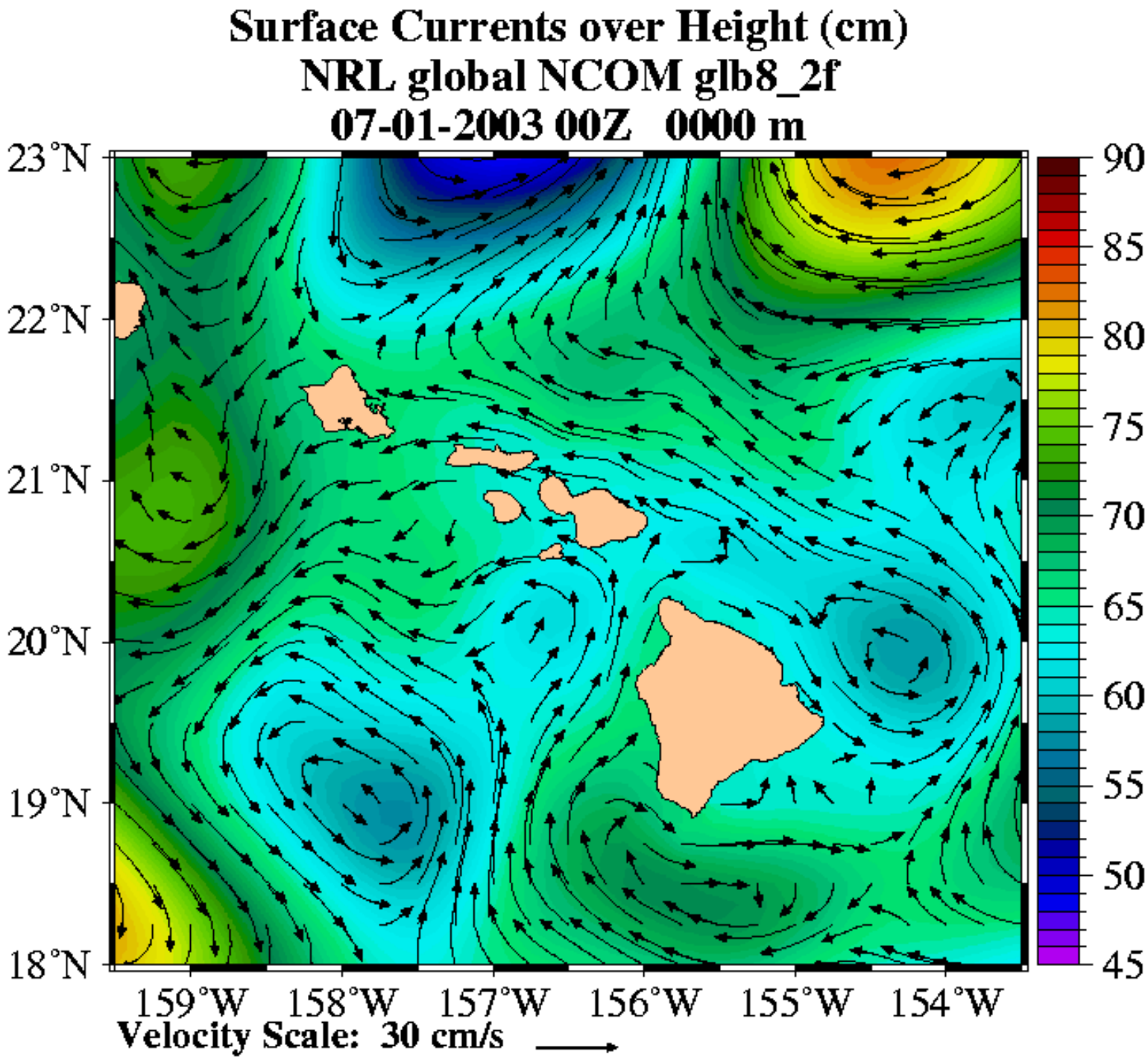
How can we adapt to sea level change?

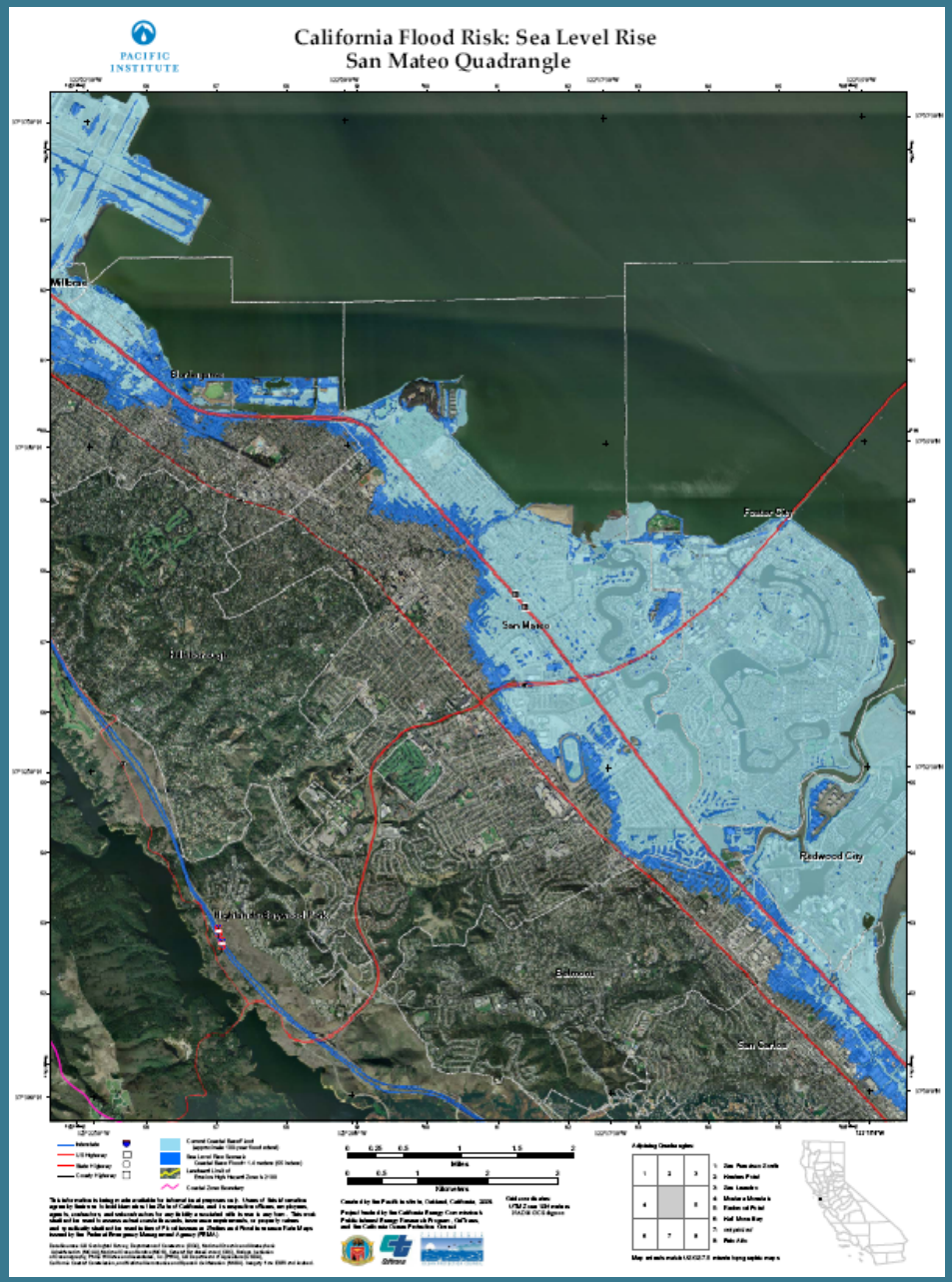
Engineering

The sky is NOT falling…..yet.

Aloha and Mahalo!




Surface Currents over Height (cm)
NRL global NCOM glb8_2f
07-01-2003 00Z 0000 m
23°N
22°N
21°N
20°N
19°N
18°N
159°W
158°W
157°W
156°W
155°W
154°W
Velocity Scale: 30 cm/s
90
85
80
75
70
65
60
55
50
45



California

- Governor's Executive Order 11/2008 (EO-S-13-08) Gov. Directing State Agencies to Plan for Sea Level Rise and Climate Impacts -
- State planning for 1.4 m SLR
- 480,000 people,
- $100 billion in property
- 140 schools,
- 34 police and fire stations,
- 55 healthcare facilities,
- 330 EPA hazardous waste sites,
- 3500 miles of roads and highways,
- 280 miles of railroads,
- 30 power plants,
- 28 wastewater treatment plants.