Beyond the Bathtub

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California Coastal Commission
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Beyond the Bathtub

Climate Change
One Size Does NOT Fit All

Photos (Clockwise from top left)
Sunset Beach; El Segundo Power Plant; Port of LA;
Santa Monica Pier; Asilomar Beach; Seymour Center,
Santa Cruz; Pacifica.
New development should be safe from erosion, flooding or wave impacts over its life – without shore protection.

**Long-term Beach Change**
Erosion for 75 or 100 years*

**PLUS**

**Seasonal Beach Change**

**Wave & Water Level Changes**
Water level from high tide

**PLUS**

75 or 100 years* of sea rise

**PLUS**

Waves from 100-year storm
(1% probability of occurrence)
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SLR Concerns for Permits

New development should be safe from erosion, flooding or wave impacts over its life – without shore protection.

**Long-term Bluff Changes**

Slope Stability with a Factor of Safety $\geq 1.5$

**PLUS**

Erosion for 75 or 100 years (life of structure)

Setback = $FS \times 1.5$

+ 

(Annual Erosion Rate $\times$ life of structure)
SLR Concerns for Permits

New development should be safe from erosion, flooding or wave impacts over its life – without shore protection.

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Slope Stability with a Factor of Safety $\geq 1.5$

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Erosion for 75 or 100 years (life of structure)

Setback = FS (1.5) + (Annual Erosion Rate $\times$ life of structure)
SLR Concerns for Planning

LCPs are Key to Addressing SLR

- Land Use Plans
  - Kinds of Development
  - Locations Development
  - Intensity of Development

- Resource Protection Policies
  - Hazards Element
  - Safety Element

- Implementing Ordinances

Source: San Diego Foundation, Focus 2050
“There will be time to deal with climate change…… But there will not be a better time. There will only be worse times.”

David Remnick, No More Magical Thinking, New Yorker, 19Nov2012.
Coastal Commission Policy Guidance – coming soon

www.coastal.ca.gov