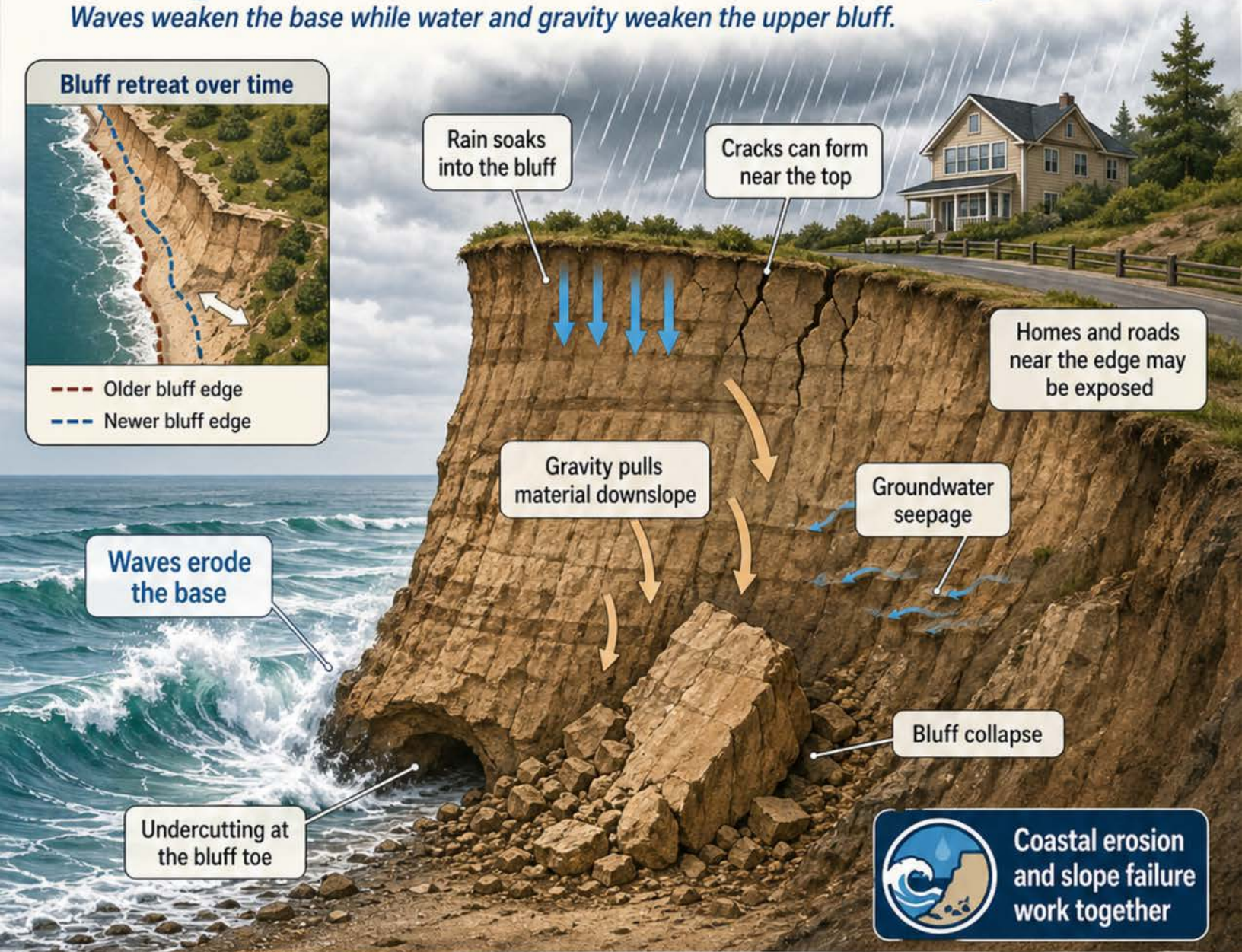
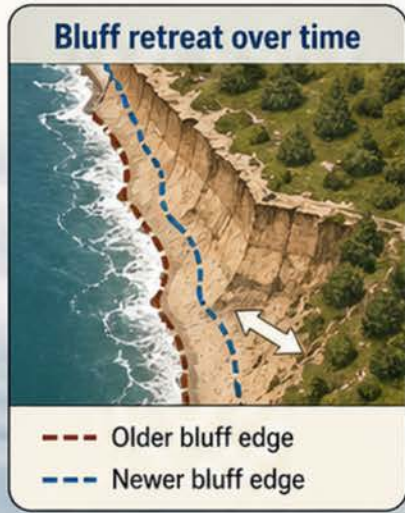


Why Coastal Bluffs Collapse

Waves weaken the base while water and gravity weaken the upper bluff.



Coastal erosion and slope failure work together

1 Waves erode the base

Waves remove sediment and undercut the bluff, weakening support at the base.

This diagram shows waves crashing against the base of a bluff. Blue arrows indicate the erosion of sediment at the base, leading to undercutting.

2 Rainfall and groundwater weaken the upper bluff

Water infiltrates, seeps, and creates cracks, reducing the strength of the bluff.

This diagram shows rain falling on the bluff. Blue arrows indicate water infiltrating the bluff and seeping out. Orange arrows show cracks forming in the upper part of the bluff.

3 Bluff collapse and retreat occur

Gravity causes failure. The bluff retreats landward over time.

This diagram shows a large rock falling from the bluff. An orange arrow indicates the bluff's retreat landward.

Policy takeaway: Coastal bluff collapse is driven by both shoreline erosion and slope instability. Setbacks, drainage control, infrastructure siting, and long-term shoreline planning all affect risk.