

Sea-Level Hi-Rise: Or, How I Learned to Stop Worrying and Love Climate Change

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The urban edge that defines the San Francisco Bay is a contested landscape whose boundaries are continually changing, both in form and in definition. Much like the tidal flux of the Bay wetlands, the urbanized waterfront can extend and recede. Over the years, the Bay Area has seen a large portion of the historic wetlands filled or leveed off for residential, commercial, and industrial land uses. With current sea-level rise projections, it appears that the water will once again reclaim the bay lands that have been filled.

To combat sea-level rise, many are calling for bigger and better levees, while still others claim that urban development in areas at risk of inundation should be removed to allow for tidal wetlands to migrate to higher elevations with the rising sea levels. I propose that both may be accomplished by a staged retreat of existing development, enabling a wetland migration with the rising sea-level, while introducing a resilient new development and infrastructure that is uniquely defined by the region's ecological characteristics.

My proposal blurs the lines between the shoreline and the city. The new development would be built on "finger" levees that are horizontal to tidal action, allowing for wetlands to coexist between the buildings, acting as a native habitat and a buffer against storm surges. Mid-rise and hi-rise buildings would replace the current low-density suburban development and industrial parks, creating a significantly smaller footprint, while providing twice as much housing for a growing Bay Area population.

I have chosen waterfront sites at risk of inundation from sea-level rise in three counties around the San Francisco Bay to demonstrate how a study of the past and present can better inform a plan for the future. In each site, I illustrate the long-term benefits of a staged retreat and resilient redevelopment strategy that creates a new set of relationships between urban life and ecology, ultimately redefining the boundary of the city.



Sea-Level Hi-Rise Part II
 Or, How I Learned To Stop Worrying and Love Climate Change

Sea-Level Hi-Rise:
 or, How I Learned to Stop Worrying and Love the Climate Change

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To combat sea-level rise, many are calling for bigger and better levees, while still others claim that urban development in the areas at risk of inundation should be removed all together to allow for tidal wetlands.

I propose that both may be accomplished by a staged retreat of existing development, enabling a wetland migration with the rising sea level, while introducing a resilient new development and infrastructure that is uniquely defined by the region's ecological characteristics. The new development would be built on what I call "finger" levees that are horizontal to tidal action, allowing for wetlands to coexist between the buildings, acting as a native habitat and a buffer against storm surges. Mid-rise and High-rise buildings would replace the current low-density suburban and industrial development, creating a smaller footprint, while providing twice as much housing for a growing Bay Area population.

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San Francisco, CA

San Mateo, CA

Union City, CA

