

County of Marin and California Coastal Commission Land Use Regulations are Critical for Adaptation to Sea Level Rise in Coastal Marin County

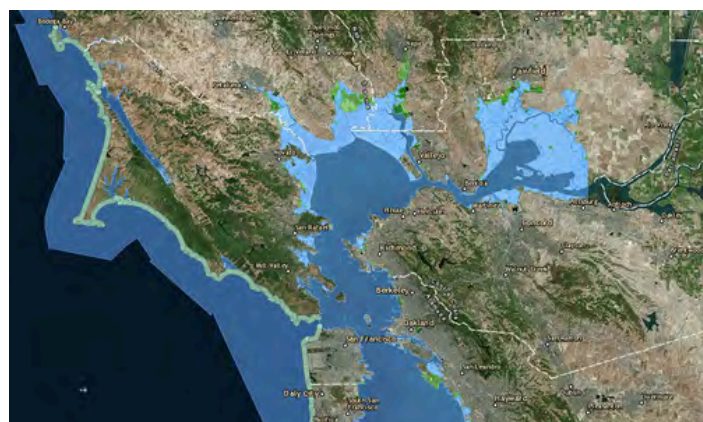
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In the coming years, sea level rise will have profound consequences for coastal West Marin. These consequences include threats to shoreline development, natural resources such as wetlands and other habitat areas, and public beaches, all of which support the economic, ecological, and social well-being of our coastal communities. Even now we see the beginnings of these impacts in the form of increasing incidence of flooding, shoreline erosion, and damage from storm surge.

The primary mechanism for adaptive response to these foreseeable impacts comes in the form of land use planning and regulation. To think about how this might work, let's start with a simple model of land use regulation. County government creates geographical zones for residential, commercial, or industrial development, or other uses such as agriculture or open space. Each zone has allowed and prohibited uses and also has developments standards such a height limits for buildings, and setbacks from property lines and sensitive habitat, for example. Each piece of land is assigned to zone, and then the county holds a public process to allow the public to respond to the proposal. Interest groups may advocate for changes or exceptions to the allowed uses and development standards. After the public process, the Board of Supervisors adopts the land use plan, and codifies the regulations by adopting an ordinance.



For coastal West Marin, we need to add some jurisdictional complexity to our simple model. The California Coastal Commission regulates development in the state's coastal zone, which is, more or less, the area seaward of Highway 1. To facilitate local decision-making, the Coastal Commission delegates its authority to local jurisdictions through Local Coastal Programs, which must be certified by the Commission as consistent with the Coastal Act. In our simple model then, after the Board of Supervisors adopts the land use plan, it submits the plan to the Coastal Commission. The Commission can accept the plan, reject it, or suggest modifications that would make the plan consistent with Coastal Act. Any suggested modifications must in turn be approved by the Board of Supervisors.



Marin County's Local Coastal Program was originally adopted in 1982. In 2019, the Coastal Commission certified a near-complete revision. The only section remaining from the 1982 Local Coastal Program is the Environmental Hazards section, which in part concerns development

standards related to flooding, shoreline and bluff erosion, groundwater intrusion, and storm surge, all of which will be exacerbated by sea level rise. In 2014, and again in 2016, the county submitted revised hazards policies to the Coastal Commission for certification. Both times, the Commission suggested modifications to make the policies Coastal Act-consistent, and both times the county withdrew its submission in response. As a result, development along Marin's coast is regulated according to 1980s-era policies that don't recognize or account for sea level rise.



Since 2016, Marin County has embarked on several attempts to update its environmental hazards policies, to no avail. Recently, it started yet another such process, so it's worth asking: *Why is this so hard?* Part of the answer can be found in our simple model of land use regulation. Two implicit assumptions underlie that model. The first is that the landscape is more or less fixed. Property lines don't change, except by request of the landowner; public property is separate from private property; areas subject to hazards such as flooding are known, and can be mapped relatively precisely. The second implicit assumption is that all stakeholders agree on the meaning of terms used in the regulations. It's clear to everyone whether a building exists or doesn't; it's obvious whether a building is new. These implicit assumptions fail when it comes to regulating an adaptive response to sea level rise in West Marin.

First, sea level rise makes the landscape fluid instead of static. In particular, the mean high tide represents the line between public trust and private lands, and as that line migrates inland due to rising seas, private property will begin to encroach on public tidelands. Second, in order to protect beaches and other coastal resources, the Coastal Act limits certain strategies that could be used to adapt to sea level rise. Foremost among these limits is a prohibition on shoreline armoring, such as seawalls and revetments, except in very narrowly-defined circumstances. Shoreline armoring is allowed, for instance, in order *"to protect existing structures."* The Coastal Commission construes *"existing"* to mean existing at the time the Coastal Act came into effect in January 1977. Others, including in West Marin, construe it to mean *"existing at the time a permit for coastal armoring is applied for,"* which could include all structures existing now and in the future. This issue has been litigated, and recently the Court of Appeal sided with the Coastal Commission (see *Casa Mira Homeowners Assoc. v. California Coastal Commission*, 107 Cal.App.5th 370 (2024) as modified by 327 Cal.Rptr.3d 906 (2024)). Another issue of contention is a Coastal Commission regulation that defines when repair and maintenance of an existing structure crosses over a line into the development of a new, *"replacement structure"* which may be subject to stricter regulations.



For over 10 years, these and similar disputes have carried on, paralyzing adaptation planning, all against the backdrop of rising water levels and increasingly powerful storms, with consequent shoreline erosion, property damage, and loss of valuable habitat for diverse species.

Unless Marin County can create coherent and equitable land use regulations guiding adaptation to sea level rise, West Marin residents will inevitably take matters into their own hands, including “asking forgiveness rather than permission.” But this ad hoc adaptation is a zero-sum game. Your ad hoc sea wall will redirect flood waters into my home, forcing me to adapt to your adaptation, and so on in a chaotic daisy chain of development that serves no common

purpose. Those without the resources to respond will have their fates handed to them by their neighbors. Biodiverse coastal habitats will be washed away. This is hardly the future we would want for ourselves and our children, but time is of the essence if we want to avoid it.



Terence Carroll is Co-founder and Research Director of River Otter Ecology Project (ROEP), a Marin-based conservation organization. ROEP believes that lasting environmental change starts with local action. Through research, advocacy, and community science, ROEP promotes the health of our waterways—ponds, rivers, creeks, lakes, and coastlines—benefiting people, wildlife, and ecosystems. River otter recovery in the San Francisco Bay Area and across the United States is the result of law and policy supporting wetland restoration and habitat conservation. Sign up to receive our newsletter.

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