

New California bill could require 'blue carbon' to offset coastal development

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Public developments on the California coast would be required to capture carbon in wetlands or other natural systems under an Assembly bill that calls for projects to add "blue carbon" measures to their

mitigation plans.

Blue carbon refers to coastal habitat such as wetlands, marshes, [kelp forests](#) and [eelgrass beds](#) that capture and store carbon in soil, plant matter and the sea floor.

AB 2593, authored by Assemblymember Boerner Horvath, D-Encinitas, would require projects on [public lands](#) to compensate for [greenhouse gas emissions](#) by building or contributing to [blue carbon](#) projects.

"It's a way to develop our coastline, while protecting some of California's remaining unique important areas," Boerner Horvath said. "Instead of damaging them, we can double down and reinforce the things that are really valuable—seagrass, flora and fauna."

If the [bill](#) passes, it would add blue carbon mitigation to the suite of factors that the California Coastal Commission considers when it approves coastal permits.

Under California law, any [project](#) that affects coastal resources must take measures to avoid or minimize its negative impact. If it can't avoid that entirely, developers must offset the effects of the project with mitigation measures that replace or restore the resources it will damage.

For projects that affect tidal or ocean habitat, that may include planting new eelgrass beds or restoring marshland. For instance, efforts to widen Interstate 5 along the San Diego County coast have been accompanied by improvements to San Elijo Lagoon and other wetlands it crosses.

Now such mitigation plans focus on improving habitat for [native plants](#) and wildlife, along with building amenities such as trails and bike lanes. Under Boerner Horvath's bill, blue carbon would become another factor the Coastal Commission would evaluate.

"Her bill would add the carbon sequestration impact to the consideration of what mitigation we would require," said Coastal Commission Legislative Director Sarah Christie, who noted that the commission has not taken a position on the bill.

The new rules would apply to any projects on public land, which might include marine projects such as [offshore wind](#), offshore oil and gas platform decommissioning, underwater pipelines, cables, marinas, ports and docks, Christie said. Dredging, aquaculture operations and coastal bridge and roadwork could also fall under its provisions.

Officials with the San Diego Association of Governments, a regional planning agency, declined to comment, saying they were not familiar enough with the bill to say how it might affect ongoing transportation plans or other public works projects. Boerner Horvath and Christie said there isn't an estimate now on how many projects the bill could affect or what the costs would be.

Boerner Horvath said the bill was inspired by the coastal geography of her district, as well as recent revelations about the role coastal habitat plays in the planet's carbon balance.

"I've always been interested in blue carbon," she said, "I think it's a function of the district, which has so many lagoons."

Boerner Horvath said as she learned about carbon sequestration she realized the opportunities in her own backyard.

"I learned that salt marshes sequester more carbon than trees," she said. "I'm an environmentalist, I'm a mother, and I want to make sure there's a healthy planet for my kids."

Tidal marshes such as those found along the lagoons on San Diego

County's coast sequester carbon in deep layers of soil. These ecosystems capture carbon at a rate two to four times greater than tropical forests, according to the Blue Carbon Initiative, a coalition of international scientific and educational organizations. Seagrasses are submerged, deep-rooted meadows found on shorelines, which store twice as much carbon as terrestrial forests.

Kelp forests have also recently been identified as blue carbon sinks that rival other coastal flora in their ability to catch and hold carbon in their fronds. A 2020 study in *Nature Scientific Reports* found that kelp beds around Australia account for more than 30 percent of total blue carbon stored and sequestered around the Australian continent, and about 3 percent of total global blue carbon.

Blue [carbon](#) habitats are also some of the most biologically productive places on Earth, brimming with fish, shorebirds, crustaceans and insects. And they can counter the effects of climate change by buffering storm surges and reducing flooding.

Boerner Horvath introduced the bill in February, and on April 5 it passed the Assembly Natural Resources Committee on a 7-3 vote.

"It's a pretty commonsense measure that has strong bipartisan support," she said.

AB 2593 will continue through Assembly committees before going to the full Assembly and then Senate for a vote. Boerner Horvath said she hopes to see it signed into law by Gov. Gavin Newsom later this year, and take effect Jan. 1 of next year.

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