

October 4, 2016, oc100416.mp3

Positively Ocean
Liz Fox, Kathy Boyer

(Musical Interlude)

Liz Fox: Hi, this is Liz Fox at Positively Ocean, where we celebrate the ocean and look at what's working well. This week's story on Blue Carbon takes us to Richardson Bay in the northwest shallows of the San Francisco Bay.

Carbon is a problem when molecules drift from our cars and factories into the atmosphere. This combines with our ocean water, making our seas more acidic, making for some big losers in the delicate balance of ocean chemistry. Acidic waters disrupt shell formation in shellfish, even organisms as small as plankton depend on the right pH for their calciferous shell. And of course, that has a ripple effect on the food web for anything that eats zooplankton or shellfish, or anything that eats animals that eat shellfish or zooplankton, which is everything, almost.

But there are some big winners. When talking about blue carbon, think green! Phytoplankton, eelgrass, kelp, the marine actors play a crucial role in balancing the chemicals of our seas. Marine scientists estimate on a global scale, one acre of eelgrass can absorb more than twice as much carbon as an acre of forest. Here in the Bay, San Francisco State University professor Kathy Boyer, has done SCUBA gear with teams of students, researchers, and environmentalists to restore eelgrass beds. They're three years into a nine year project that aims to replenish 70 acres of *Zostera marina*. So far, their beds are thriving.

Kathy Boyer (On recording): Well, we have a couple of sites in the Bay that have been performing really well, and it's allowing us to expand to larger footprints over time, it's been exciting to see those sites are doing well over multiple years

Liz Fox: With a promising start, Boyer and her team test additional sites using small amounts of plants before sinking too many resources into areas that might not support eelgrass beds. And as the plants take root again, they start burying carbon, scientists don't really know how much though, since the variety of *Zostera marina* grows much larger and more sparsely than eelgrass elsewhere

So while scientists have collected the data, they're still calculating how much carbon our specific seagrass sequesters. Besides the carbon benefits, Boyer's restoration efforts supports habitats for spawning fish, mollusks, and the birds that feed on them. And what's more, voters in 9 bay area counties passed Measure AA last June, securing \$25 million a year for habitat restoration. The measure passed with 69% of the vote, exceeding the two thirds majority, and it's the first regional parcel tax to pass in California ever!

Kathy Boyer: That's a nice chunk of change that should really, really push forward a lot of the efforts around the bay.

I think that the public really appreciates restoration, I think that they see it as they hopeful way of having their place in the local, natural world.

Liz Fox: This is an example of how people are doing right by the ocean, folks.

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Until next time, I'll be searching for all things Positively Ocean. For Ocean Currents, this is Liz Fox in Berkeley, California.

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