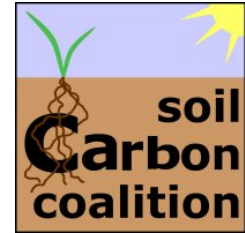


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February 14, 2023

Testimony on Oregon SB530, the Natural Climate Solutions Act

While I generally support SB530, I would recommend discarding measurement or inventory of soil carbon, and would like to see more engagement of conservation districts and watershed groups.

I support the concept of measuring outcomes, including baseline and change. But these should be relevant, participatory, and educational for land stewards on the ground, and of course these can vary a good deal across our state.

There are serious problems with carbon “sequestration” when viewed as near-term subtraction from the atmosphere or as an “offset” to emissions. As I’ve found with a dozen years of measuring soil carbon on hundreds of ranches and farms across North America—focusing on its use value in soils that can accept and hold water, support wildlife, and the production of food and fiber—measuring carbon in trees or soils can grease the skids for commodification of its exchange value and the shell game of carbon “offsets.”

Any near-term “sequestration” or drawdown of atmospheric CO₂ into soils, trees, or rocks will be mostly compensated or buffered by the release of CO₂ from the oceans. This is a well-known fact of physical chemistry, formulated as Henry’s Law in 1803. Take carbonated beverages. To dissolve CO₂ into water, you increase CO₂ pressure in the air above (as our CO₂ emissions have done to the ocean, increasing its acidity). If you leave your glass of beer on the table, it will off-gas most of its CO₂ into the air, faster if it’s warm. There is an equilibrium between the concentration of CO₂ in the air, and the dissolved concentration in the liquid. What this means is that if trees, plants, and soils draw down significant amounts of CO₂ from the air, the oceans will release a nearly equivalent amount back into the air. Because of this ocean buffer, changing the atmospheric concentration of CO₂ has been, and will continue to be, a longer and more drawn-out process in human terms than the buzzwords of carbon sequestration, drawdown, or offsets have encouraged us to believe.

Soil carbon and tree carbon have enormous benefits and use values for all forms of life including humans, but significant reduction of atmospheric carbon in our lifetimes is not one of them.

Better and more practical metrics for baselines and change in soil health and climate are those with grassroots engagement and participation, with local economic relevance from their use value, and less likely to have their exchange value commodified by outside interests. These might include changing or reduced costs of insurance, infrastructure repair, disaster relief, or fire suppression. In agriculture, these could be time trends of yield or harvest per inch of water supplied, or per unit of soluble nitrogen fertilizer or other input. Population trends of pollinators and birds.

Participatory, peer-to-peer learning groups of land stewards and allies are excellent at coming up with good questions and practical ways of answering them. For an Oregon Natural Climate Solutions bill, I would strongly recommend veering away from a top-down approach centered on state agencies and one-size-fits-all metrics, and put more support and confidence in conservation districts and local watershed groups (which are at least mentioned in the Healthy Soils Bill HB2998). Though many of Oregon's conservation districts have been “becalmed” in regards to soil and water by the takeover of research and technical assistance by the input sectors, they are boots, eyes, and ears on the ground and could use encouragement and support in regards to soil health, natural climate solutions, and coordination of peer-to-peer learning. In 1937 FDR, in his letter to state governors, emphasized the importance of farmer cooperation:

“The Nation that destroys its soil destroys itself. . . . The [Standard State Soil Conservation Districts Law] provides for the organization of ‘soil conservation districts’ as governmental subdivisions of the State **Such legislation is imperative to enable farmers to take the necessary cooperative action.**” [emphasis added]

Lastly, there is a large opportunity for a coordinated Oregon effort to cooperate with and enhance NRCS programs such as CSP, EQIP, and RCCP to boost soil health practices and natural climate solutions on the land. These will help us focus on the local use-values of soil carbon—water, wildlife, production, community—rather than the imaginary exchange values.

sincerely

A handwritten signature in cursive script that reads "Peter Donovan".

Peter Donovan
founder, board of directors
Soil Carbon Coalition