County exploring ways to use San Diego's land to fight climate change

April 18 2022, by Deborah Sullivan Brennan

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With high biodiversity and rich farmland, San Diego County is exploring ways to put the region's land to use to cut carbon emissions.

In an online public workshop Thursday, county officials explained ways to expand the use of wetlands, marshes, forests and agricultural lands to capture and store carbon through the county's Regional Decarbonization Framework.

The framework aims to coordinate local governments and public agencies to eliminate carbon emissions in San Diego County before mid-century in order to slow the effects of global warming and stabilize the climate. It's separate from, but complementary to local climate action plans, and officials have said it's the first such regional effort in California.

The plan is organized into sections covering energy, transportation, buildings, jobs and land use. On Thursday, planners discussed how land use choices can help slash carbon emissions and even capture carbon in plants and soil.

"Agriculture is the only sector that can switch from being a net carbon-producing to carbon-sequestering sector," said Elise Hanson, a management fellow at the San Diego County Land Use and Environment Group.

Farming techniques including composting, orchard preservation and restoring habitat along waterways can allow farms to retain carbon in natural systems, she said.

A report by the San Diego Food System Alliance said those and other practices are known together as "carbon farming." Other techniques include perennial plantings, cover cropping, reducing soil disruption caused by tilling fields, and silvopasture, a system of integrating trees and livestock grazing to boost crop yield and improve soil condition.

Besides helping capture carbon, those processes can reduce the amount

of fertilizer needed, increase crop yield, expand habitat and improve soil and water retention on farmlands, Hanson said.

Preserving and restoring "blue carbon" ecosystems that are partially or totally submerged in tidal zones can also capture carbon in living systems, officials said. In San Diego, those include marshes, wetlands, mud flats, eelgrass and seagrass beds. The region has lost much of that coastal habitat to development, but efforts are underway to protect what's left and restore some of what was lost.

Land use also intersects with other portions of the decarbonization framework, including its sections on energy and transportation.

The energy portion lays out options to convert the region to 100 percent renewable energy using solar and wind power to replace fossil fuels. Although solar energy can be scaled up to provide nearly all of the region's power needs, there are benefits and trade-offs. Large solar farms in East County would be cost-effective and could meet the region's energy needs. But they would require building solar utilities on undeveloped land, which could damage valuable habitat, productive farmland and ecosystems with the potential to capture carbon.

The transportation section of the framework considers ways to reduce tailpipe emissions through a regional transition to electric cars and public transit. These efforts also cross into land use, as where we live and work affects how far we drive and the vehicles we use.

The county launched the plan last year, and expects to adopt a final version of the framework in August. Over the spring and summer, planners will present a number of public workshops and talks to inform San Diegans about the plan and seek public input.