



**DATE:** January 26, 2022

**TO:** Waste Management Authority Board

**FROM:** Kelly Schoonmaker, Program Manager

**SUBJECT:** Altamont Property Overview and Carbon Farming Update

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### **SUMMARY**

The Waste Management Authority owns 1,600 acres of rangeland in the Altamont Hills in unincorporated Alameda County ("Property"). At the January 26 WMA meeting, staff will provide some background on the Property followed by an update on the carbon farming activities there. Professor Rebecca Ryals of UC Merced will discuss the science of soil carbon sequestration and present initial results of the research currently being conducted on the Property. Staff will also address the role the Agency's carbon farming work plays in assisting member agencies to meet their SB 1383 organics procurement requirements and climate action plan goals.

### **DISCUSSION**

In 1993-94, the WMA purchased several parcels of land through voluntary agreements with property owners, using funds from the Import Mitigation Fee account for the purpose of reserve landfill capacity. The county's waste prevention, recycling, and composting efforts are expected to continue reducing the amount of waste going to landfill, which, along with other factors, has postponed the need for additional landfill capacity. Until reserve capacity is needed, the Property serves as an ongoing source of passive revenue, which supports the Agency's Energy Council and waste reduction efforts and provides opportunities to undertake a range of activities that advance the Agency's mission. Current tenants and activities include a wind power operation, a conservation easement, grazing, and carbon farming. Annual net revenue associated with the property ranges from \$600,000-\$700,000.

In 2017, the WMA began working with the Alameda County Resource Conservation District (ACRCD) to develop a carbon farming project on the Property. Funded by a grant from the Department of Water Resources, the ACRCD developed a carbon farming plan for the Property, and, in partnership with the WMA, has received additional state grants to implement the plan. In 2018, the ACRCD (with UC Merced, the Natural Resource Conservation Service (NRCS), and the WMA) was awarded a Healthy Soils Demonstration grant from the California Department of Food and Agriculture's Healthy Soils Program (HSP), which funded the application of 420 cubic yards of compost on 12 acres in December 2019. The HSP grant also includes a research component to study the feasibility

and effects of compost application on steep slopes. Over the past two years, the ACRC, NRCS, and UC Merced have been collecting and analyzing data on soil carbon sequestration, greenhouse gas fluxes, changes in plant community composition and above-ground biomass, water infiltration, and water quality. Professor Rebecca Ryals from UC Merced will present the initial findings of this research and explain how compost helps facilitate carbon sequestration in the soil.

Staff will provide an update on the work conducted to date, including the application of an additional 3,100 cubic yards of compost on 90 acres in fall 2021, funded by a grant from the California State Coastal Conservancy (SCC). While the SCC grant does not include a research component, the Agency and ACRC continue to add to the body of knowledge on carbon farming by using different composts from different feedstocks and producers, employing a different compost application method from the 2019 application, and partnering with the ACRC and NRCS to monitor soil carbon and plant community composition and above-ground biomass.

Over the past two years over 3,500 cubic yards of compost have been applied to over 100 acres, increasing soil carbon by an estimated 120 tons/year. In addition to the research on the effects of the compost application, the lessons learned regarding materials selection, costs, and feasibility will help ranchers, land managers, and other stakeholders plan and implement future carbon farming projects. The carbon farming work is also designed to assist jurisdictions in meeting climate action goals, while working toward SB 1383 procurement targets.

#### **RECOMMENDATION**

This item is for information only.