



S O N O M A C O U N T Y
**AGRICULTURAL PRESERVATION
AND OPEN SPACE DISTRICT**

FOR IMMEDIATE RELEASE

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District and Water Agency Beneficiaries of \$1.2 Million Dollar Data Grant from NASA

SANTA ROSA, CA. The Sonoma County Agricultural Preservation and Open Space District (District) and Sonoma County Water Agency (Water Agency) will receive \$1.2 million dollars in remote sensing data through a NASA research grant. The District and the Water Agency are co-leads in a consortium - which includes multiple county departments, cities, NGOs and public agencies - to bring high quality vegetation, hydrology and climate data to Sonoma County.

NASA awarded the grant to the District's and Water Agency's academic partner - the University of Maryland - to use Sonoma County as a prototype to develop tools for measuring and monitoring forest carbon. As a result, Sonoma County will receive newly collected LiDAR data and 6 inch aerial photography for the entire county that will enhance the ability to assess and monitor carbon stocks, document sea level rise, map groundwater and assess vegetation and habitat. Once the University develops tools for forest carbon monitoring from Sonoma County data, they will combine these tools with NASA spacecraft data for monitoring forest carbon stocks worldwide.

Yesterday, the Board of Directors for the Water Agency and the Open Space District approved a joint resolution supporting the acceptance of the NASA data and providing matching funds to the effort. "We are thrilled to be part of this internationally important research effort" exclaimed District General Manager Bill Keene. "Not only will these data and tools greatly enhance the District's planning and conservation efforts, they will also enable Sonoma County agencies, cities and landowners to map floodplains, conserve wildlife habitat, assess wildfire risk, model stormwater runoff, address climate

change, detect landslides, and model sea level rise. The value of these data to Sonoma County and its citizens is immense.”

“The security and resiliency of our water supply is critical – especially given the need to adapt to climate change,” noted Water Agency General Manager Grant Davis. “This partnership with NASA and the University of Maryland is critical in providing data for the protection of our watersheds and drinking water supplies.”

According to Sonoma County Supervisor David Rabbitt “the Board has directed county agencies to work together to be more efficient with public funds – we are pleased to be a partner on this important project that brings in outside funding and relies on high quality scientific data to support sound decision making.”

The NASA data collection began in early October and will continue through the end of the year. Two types of data are being collected by airplanes – optical imagery and LiDAR (Light Detection and Ranging). The optical imagery is similar to what you would see looking down from an airplane window, except that the aircraft sensor can discern more detail and types of energy than our eyes can, allowing for detailed land cover mapping and vegetation assessment. LiDAR sensors send high density light waves from the aircraft to the earth’s surface. The light waves bounce off of objects on the earth’s surface and are recaptured by the sensor, allowing for precise measurements of elevation and of the height of trees, roofs, sidewalks, and shrubs.

Over a year ago the District and the Water Agency embarked on our project to map Sonoma County’s vegetation and habitat as part of an accurate, up to date inventory of the county’s land cover, ecological communities, and wildlife habitats (<http://sonomavegmap.org/>). The District, Water Agency, the County of Sonoma, USGS, California Department of Fish and Wildlife, The Nature Conservancy, the City of Petaluma, and, now, NASA have contributed funds and expertise to this innovative effort.

“The products derived from the NASA data will be immensely useful to land owners and county officials,” said Jay Jasperse, Chief Engineer with the Water Agency. “This collaboration provides Sonoma County taxpayers with highly accurate and cost effective information and tools for resource management, enhancing our County’s resource values and promoting a healthy and thriving future.”

About the Sonoma County Agricultural Preservation and Open Space District

The Sonoma County Agricultural Preservation and Open Space District permanently protects the diverse **agricultural, natural resource** and **scenic open space** lands of Sonoma County for future generations. Since 1990, the District has protected more than 106,000 acres. Agricultural and open space lands have been protected through a 1/4-cent sales tax approved by voters in 1990 and reauthorized in 2006. For more information, please visit www.sonomaopenspace.org.

About the Sonoma County Water Agency

The mission of the Sonoma County Water Agency is to effectively manage the water resources in our care for the benefit of people and the environment through resource and environmental stewardship,

technical innovation, and responsible fiscal management. The Water Agency provides an array of services including, but not limited to, naturally filtered drinking water, flood protection services, distribution of recycled water, recreational opportunities and wastewater treatment. For more information, please visit www.sonomacountywater.org.