

The Value of Protecting a Watershed: Cooley Ranch

THE HEALTHY LANDS AND HEALTHY ECONOMIES INITIATIVE

CASE STUDY



**AG +
OPEN
SPACE**
SONOMA COUNTY



CONTEXT

The most cost effective way to provide clean water is to prevent it from becoming polluted in the first place. Conserving watersheds does just that.

The 83,276-acre Upper Dry Creek Watershed drains into Lake Sonoma, which in turn provides water for more than **600,000 people** in Sonoma and Marin counties.

Cooley Ranch, in northern Sonoma and southern Mendocino counties, is a 19,132-acre parcel that makes up 23% of the land that drains to Lake Sonoma. In 2001, Ag + Open Space purchased a conservation easement on the land, which had been in rancher Crawford Cooley's family since 1910. The easement extinguished 93 of the 97 development rights that were available at the time of acquisition.

The preservation effort averted what could have become a large-parcel residential development. About three-quarters of the property - a mix of chaparral, stream corridors, forest, and grasslands that supports bald eagles, black bears, mountain lions, and rare plant species - will remain as undeveloped wild habitat in perpetuity. In addition, cattle are still allowed to graze almost 17,000 contiguous acres, and up to 1,000 acres of vineyard are permitted.

In addition to conserving habitat, scenic, and agricultural values, protecting Cooley Ranch preserved a critical natural

capital service of the watershed — providing clean water to Lake Sonoma.

Development can impair water quality, primarily by increasing the amount of sediment and nitrogen that washes into waterways. These contaminants can increase treatment costs for water providers by millions of dollars; they can also degrade aquatic habitat and recreational uses, harming fish and amphibians and limiting swimming, fishing, and other activities in reservoirs and estuaries.

“Cooley Ranch is an important part of Sonoma County’s water supply system, enhancing water quality for 600,000 people”

Many communities around the country have found that protecting the watersheds that provide drinking water is an excellent investment that avoids major costs associated with new water treatment infrastructure.

This study, conducted by Earth Economics in partnership with Ag + Open Space and Sonoma Water, assesses some of the natural capital values preserved by protecting Cooley Ranch.



FINDINGS

Value: AVOIDED NITROGEN POLLUTION

Had Cooley Ranch not been protected, it likely would have been developed for large-parcel residences. By comparing existing conditions to a conservative development scenario that included 56 home sites, the researchers were able to analyze some of the water quality impacts that development could have caused. Using data on the nitrogen flows generated by residential septic systems and other land uses, the researchers estimated the avoided nitrogen pollution benefits associated with protecting Cooley Ranch at **\$164,000** per year. This value does not reflect any other water quality benefits of preserving land, including avoided phosphorus inputs, minimized sediment runoff, and other avoided pollutants associated with development



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Sonoma County Ag + Open Space permanently protects the diverse agricultural, natural resource and scenic open space lands of Sonoma County for future generations. We are responsible for the perpetual protection of over 116,000 acres of land throughout our region. These agricultural and open space lands are protected through a quarter-cent sales tax approved by voters in 1990 and reauthorized in 2006. For more information, please visit www.sonomaopenspace.org.



THE HEALTHY LANDS AND HEALTHY ECONOMIES INITIATIVE

The Healthy Lands and Healthy Economies Initiative documents the economic value and community benefits of natural and working landscapes. This research helps to show that Sonoma County's investments in land conservation pay real dividends, now and into the future. This Initiative would not have been possible without contributions from the Gordon and Betty Moore Foundation, the S. D. Bechtel, Jr. Foundation, and the California State Coastal Conservancy.

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FULL REPORT: Earth Economics. 2017. The Economic Value of Land Conservation in Sonoma County: A Case Study Focused on Upper Dry Creek and Cooley Ranch. Report prepared for Sonoma County Ag + Open Space.

AVAILABLE AT: www.sonomaopenspace.org/HLHE

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