

North Coast Oak Woodland Conservation Research on a Landscape Scale¹

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A diverse suite of projects will be depicted demonstrating the value of mapping, monitoring, and modeling the North Coast's changing oak woodland landscape. This applied research uses a geographic information system to better integrate biodiversity research and conservation planning in California's north coast oak woodlands.

This work is designed to map natural resources and forecast land use change in order to identify natural resources at risk. The primary threats that oak woodlands face in the north coast are: 1) population growth resulting in urban and sub-urban expansion, 2) a booming wine industry driving an expansion of hillside vineyards in oak woodlands, and 3) the cascading effects of land-use on the Russian River Basin. We have GIS analysis that allows examination of these processes and have developed a vineyard and residential expansion model for Sonoma County.

To assess the effects of land-use conversion on biodiversity, we have measured biological community integrity and diversity in various land use types and oak woodland habitats. These include suburban developments, small ranches, vineyards, riparian areas, and undeveloped woodlands.

County planners and others are using the products that have resulted from this research to gain an understanding of regional level changes and conservation priorities.

¹ This paper summarizes a poster that was presented at the Fifth Symposium on Oak Woodlands: Oaks in California's Changing Landscape, October 22-25, 2001, San Diego, California.

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