

MARIPOSA COUNTY



RESOURCE  
CONSERVATION DISTRICT

# Central Sierra Woody Biomass Aggregation Pilot Project: *Organizational Study*

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Resource Conservation District by  
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# Executive Summary

## Background and Purpose

Nine out of California's 10 most severe wildfires occurred in the last decade, with 2020 breaking state records for the most severe fire year period for acres burned and severity of the burn. The increased abundance of fuels in forests, coupled with a changing climate that is increasing the severity of drought and heat conditions, is causing fires to burn at a higher severity than historical fires, posing increased risk to communities and ecosystems. Several efforts are underway in California to reduce hazardous forest fuels and support fire-resilient forest ecosystems. One outcome of increased forest management is an increase in woody biomass, which could have beneficial uses (e.g., through converting it into marketable wood products or selling it to bioenergy facilities). The use of excess woody biomass provides multiple benefits to forests and communities, including reduced wildfire risks, increased forest health, useful services for landowners and land managers, and increased economic activity and small business development in forested regions of California.

A comprehensive approach is needed to support the removal and beneficial use of woody biomass at the scale required to reduce wildfire risks and increase forest health. In response to this need in the Central Sierra region, the Mariposa County Resource Conservation District is leading a project to identify opportunities to facilitate and advance beneficial uses of forest biomass to support wildfire risk reduction, forest health, and economic development. This project is one of five pilots funded by a grant from the California Office of Land Use and Climate Innovation (formerly the Office of Planning and Research) through the state's 2021 Wildfire and Forest Resilience Action Plan Objective (Addressing Feedstock Barriers through Pilot Projects).

### Wildfire Snapshot

Over **625,000 acres** have been impacted by wildfires in the region over the past 10 years.

Over **321,000 Bone Dry Tons/Year** of woody biomass are available in the region for reuse.

Large fires in the area, like the Rim Fire in 2013, resulted in **\$164.3 million worth of damage.**



## Central Sierra Regional Snapshot

Covers 3.9 million acres

Spans five counties:

Alpine, Amador, Tuolumne, Calaveras, and Mariposa

Includes:

Stanislaus National Forest, portions of Yosemite National Park, Eldorado National Forest, Sierra National Forest, and Humboldt-Toiyabe National Forest

Presents varied land ownership:

- 48% private
- 51% federal
- <1% state
- 1% local



Due to the need to coordinate actions and funding for this important work, a key focus of the pilot projects is to assess possible organizational structures—such as special districts, regional authorities, Joint Powers Authorities (JPAs), or Joint Powers Agreements—and funding sources and mechanisms that would be most effective to advance beneficial uses of woody biomass. The Central Sierra pilot project comprises the counties of Alpine, Amador, Tuolumne, Calaveras, and Mariposa and covers over 3.9 million acres.

This study recommends either developing a new JPA in the region or expanding an existing JPA to lead a program that:



Increases resilience to wildfire by removing woody biomass and providing a more sustainable alternative to fuels management than open pile burning.



Improves forest health by facilitating coordination across multiple landowners, managers, and businesses in the region (e.g., private, local, regional, Tribal, state, and federal) to remove woody biomass for beneficial utilization.



Improves economic development by increasing beneficial woody biomass utilization to create jobs and help create or improve support for small businesses, including Licensed Timber Operators.

## Key Findings

This report summarizes data and findings of several studies conducted in support of this pilot project. The studies assessed the market feasibility, challenges and barriers, and financial viability of advancing the beneficial use of woody biomass, including the key step of establishing a new JPA or expanding an existing JPA in the Central Sierra region. These studies found the following:

- **Many barriers limit the effective use of biomass.** While the Central Sierra region produces excess biomass, due to current regulations, costs, and standard practices, most of this woody biomass is unlikely to be processed in a sustainable or economically feasible manner. Additional challenges include a lack of a stable and skilled workforce, the cost of transporting biomass from forests to processing facilities, the difficulty of removing biomass from private lands at a cost-effective rate, and inconsistent and short-term contracts that

prevent current businesses from expanding their operations. New businesses also struggle to enter the market, unable to get financing for equipment or payroll without long-term guarantees of stable work and biomass supply. The region also suffers from a lack of skilled drivers and transportation infrastructure.

- **The region needs a comprehensive approach to increase economic opportunities and promote forest health and resilience in response to forest fuels reduction projects.** Increased funding for forest fuels reduction projects will increase the amount of woody biomass, underscoring the need for a comprehensive approach to beneficial use at a scale that meets the needs of the region and the goals of the state, while also promoting economic growth opportunities.
- **A new or expanded Central Sierra JPA could help address many of these barriers.** A new or expanded JPA could provide many services to help facilitate the flow of biomass from suppliers to buyers and help catalyze efficient processes to remove hazardous forest fuels. A new or expanded JPA could facilitate longer term service contracts; seek and manage grant, philanthropic, and foundation funds to help reduce fuels reduction and utilize biomass; provide services that are needed by small businesses, landowners, and land managers; support workforce development programs; manage Good Neighbor Authority agreements with the U.S. Department of Agriculture’s Forest Service; and provide technical support to small businesses.
- **The financial viability of a program to advance this work will depend on ongoing state funding.** According to conversations with staff, the Office of Land Use and Climate Innovation expects to provide the next round of funding (\$1,000,000 per pilot) for the woody biomass aggregation pilot projects in 2027. This funding, along with charging fees for services, can provide some of the initial revenue needed for a new or expanded Central Sierra JPA. As the JPA progresses and expands its services, it will likely become less reliant on grant funding and be able to move toward a more balanced economic model. While the exact balance of revenue sources will shift depending on the regional needs for services, the capacity of the JPA to provide those services, and how much revenue those services can generate, the JPA will likely become more stable over time.

If California is committed to supporting biomass reduction as a tool to strengthen forest health, increase forest resilience, and catalyze economic development, it needs to continue funding the counties and Resource Conservation Districts to do this work and consider how to allocate ongoing funds to promote their success. By continuing the work started through this pilot project—and with continued support from the state—the new program could serve a critical role in the region. A new or expanded Central Sierra JPA has the opportunity to restore the health of the region’s forests, decrease wildfire risk, provide key services to landowners and land managers, and provide important economic development opportunities for existing and new businesses in the region.

