

Sustainable Forest Biomass Assessment

The Mendocino County Woody Biomass Working Group (WBWG) and the Coastal Biomass Group are working together to complete a countywide fuel study that answers one of the most important questions around removal of biomass from the forest: What is the economically and ecologically sustainable level of biomass that can come out of the woods in Mendocino County?

Past forest management practices in Mendocino County have created large tracts of overcrowded small diameter trees and brush. This excess woody biomass impacts the forest ecosystem - increasing vulnerability to catastrophic forest fire events, stunting tree growth, using more water than well-spaced forests and degrading terrestrial and aquatic habitat. Over-removal of biomass can have negative ecological impacts - removing small mammal habitat and material that adds nutrients to forest soil.

It is important to understand the ecologically appropriate level of biomass removal before claims about biomass availability can be considered accurate. Once biomass is removed it can be converted into an array of end products, i.e., co-generation plants convert biomass into electricity, pyrolysis plants convert biomass to bio-oil, etc.

The groups have been looking at different types of biomass conversion projects in the county and have identified a fuel supply study as an essential next step for two reasons:

1. To address community concerns regarding overharvesting on woody biomass in County forests by conducting ecological research and integrating the community voice into the definition of “sustainable” biomass removal.
2. To provide potential investors in biomass facilities with information about fuel supply that will help them build an appropriately scaled facility that will utilize biomass at ecologically and socially acceptable levels.

The groups will determine the definition of a “sustainable” level of biomass removal through a literature review conducted by U.C. Berkeley. The study will look at key ecological indicators of forest health, such as nutrient levels, erosion control, key species habitat etc. and determine the appropriate amount of biomass that should be left in Mendocino County forests in order to ensure ecological sustainability. The results of the study will be shared with the community through a series of outreach events.