

In Brief

USDA Forest Service · Pacific Southwest Region and Research Station

Counting Carbon: potential climate change benefits and renewable energy from forest fuels management

Background

In 2006, the Mendocino National Forest (MNF), Pacific Southwest Research Station (PSW), and Winrock International Institute for Agricultural Development received funding from our National Office to partner with the State of California for a project that will demonstrate and evaluate potential market opportunities for carbon sequestration and carbon offsets. This project will take place in conjunction with the Alder Springs Fuels Reduction Stewardship Project and will monitor fuels management treatments in order to accomplish the following:

- Quantify greenhouse gas emission reductions resulting from fuels management treatments
- Evaluate and quantify potential revenues in current and future carbon markets
- Evaluate potential for renewable energy credits and incentives associated with biomass energy production

This project is of great relevance due to increasing interest in carbon management, renewable energy production, and because of the magnitude of national forest system lands in need of fuels reduction treatments and project funding. The Forest Service is participating in this project in order to assess the potential for generating possible market incentives for fuels treatments, which would help extend our landscape treatment capability.

Impacts

Carbon markets coupled with State and Federal incentives could produce significant market opportunities for the private sector associated with fuels reduction projects. Additional revenues would allow forest managers to appraise the value of fuels treatment in light of new markets, and therefore extend programs and treat more acres. The potential for new market opportunities will not be known until research has been completed that adequately describes the carbon emission costs and benefits resulting from fuels management activities. Additionally, independent analysis would be needed to assess the feasibility of tapping into existing and emerging carbon markets at state and federal levels, and the ability of federal agencies and contractors to participate in those markets using carbon credits gained from management of public lands.

Current Situation

MNF awarded a stewardship contract for the Alder Springs project to Sierra Pacific Industries (SPI) of Anderson, CA, in July 2007 to thin trees and remove biomass in order to reduce the size and intensity of future wildfires while improving forest health. SPI will transport the biomass to Wheelabrator Shasta Energy Co. of Anderson, CA, for conversion into electricity. The MNF will follow up the thinning operations with prescribed burning. Work on the SPI contract is expected to begin this fall and to be completed in March 2009. PSW and Winrock International will finalize their research analysis and produce findings over the next two years.

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