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Climate Change Fight Could Mean More Lode Forestry Jobs

By Dana Nichols

WEST POINT - Federal and state efforts to battle climate change will likely mean more jobs and better-looking forests in coming decades on the wooded slopes surrounding Sierra Nevada towns such as West Point. It may also mean that a new industry - generating electricity from forest waste - will spring up.

More intensive management of forests, including thinning underbrush, can speed tree growth and prevent catastrophic wildfires, thus locking up more carbon in wood and keeping it out of the atmosphere.

And keeping carbon out of the atmosphere is about to become a paying proposition, thanks to state and federal efforts to set up carbon trading markets and limits on carbon emissions in order to battle climate change.

Calaveras County is on the forefront of such efforts. The county is home to the 413-acre Love Creek Forest near Calaveras Big Trees State Park, one of the first privately owned forests in the state to get the certification necessary to make it eligible to sell carbon pollution credits. County officials already have a job training program called Calaveras Healthy

Impact Product Solutions that trains workers in exactly the kind of forest thinning and brush-

chipping skills needed to improve carbon storage.

And an entity called the Calaveras Consensus Group is meeting regularly in West Point to hammer out details on how to get the necessary combination of industrial infrastructure, expanded job training, and state and federal incentives to make this new model for forest industry take off.

"The significance of the Calaveras Consensus Group was getting all of the parties at the table," said Kim Carr, an area manager for the Sierra Nevada Conservancy.

Those parties include the Conservancy, which is a state agency, as well as Calaveras County officials and representatives of various state and federal agencies including national forests and the Bureau of Land Management.

Their goal is to revitalize the health of area forests - which are choked by underbrush because of decades of fire suppression - as well as the health of the local economy, which slumped over the past 40 years after many area lumber mills closed.

One key element in the new forest equation may seem counterintuitive: that burning

forest waste to produce electricity will reduce carbon in the atmosphere.

Such biomass plants improve the carbon equation, however, because small-diameter brush in forests and the slash piles left behind by logging operations already put carbon in the atmosphere, both through burning and through natural decay of dead matter.

Burning wood chips or pellets in a power plant releases less carbon than would an uncontrolled wildfire or a slash pile burn. And when forest waste generates electricity, it eliminates the need to generate the electricity at a coal- or oil-fueled plant elsewhere.

Additional benefits to burning small-diameter forest materials in power plants: Removing underbrush from forests helps the trees to grow faster and store more carbon, reduces the risk of wildfires that would release carbon, and reduces dead matter on the forest floor that would decompose and release carbon into the atmosphere.

The Calaveras Consensus group is seeking state and federal help to get a biomass plant built in the West Point area and to get necessary incentives to make the operation viable.

Such biomass plants and the electricity they produce are one of the fastest and most effective ways to use forests to reduce greenhouse gases in the atmosphere, according to various experts and studies.

"That, interestingly, is where the Europeans have said is the biggest change," said Bill Stewart, a forestry and fire expert with University of California College of Natural Resources and the UC Cooperative Extension.

Europe already has an elaborate system of forest thinning practices connected to a network of forest waste-burning generation plants.

The cost to produce electricity from wood waste in California is currently too high to

make such plants competitive with plants that use dirty fuels such as coal and gas.

"You could do more biomass removal if you had financial incentives," said Mark Pawlicki, a spokesman for Sierra Pacific Industries, which owns more than 70,000 acres of commercial forest in Calaveras County. "The rates that are paid by utilities are just not high enough to do more."

Changing the balance of carbon in the atmosphere through increased forest growth is more of a long-term proposition.

California forests already store about 5 million tons more carbon each year than they emit, and that could with the right efforts increase to as much as 23 million tons a year by 2050, according to an October 2008 report by the California Board of Forestry and Fire Protection.

Right now, under voluntary carbon offset markets, most trees in California forests are still worth more if they are cut down and sold as wood than if they are left standing as carbon-storing machines, according to state government estimates.

But both state and federal authorities are now moving toward a so-called cap-and-trade system for greenhouse gas emissions. That means that by 2020, there should be a robust market for carbon credits that would be sold to polluting industries such as coal-fired plants.

"The whole idea of selling carbon credits to me was one that generated a lot of skepticism," Smith said, recalling his reaction two years ago when Pacific Forest Trust approached him about purchasing a conservation easement and managing the forest for carbon sequestration.

"But we do think these kinds of things are important to allow landowners like us to continue what they are doing."