

Contractor Profile

Wesley Brinegar invested in this Raptor 500 track mulcher from Prinoth Vegetation Management North America. Brinegar says the machine can masticate vegetation on three to four acres per day.

Fuels Reduction Project Produces Logs, Chips, and Electricity

High Sierra Timber Management Boosts Forest Health in Sierra Forests

By Steve Wilent

TWAIN HARTE, California – Reducing fuels in overcrowded forests in the Sierra Nevada region of California is crucial for forest health and their very survival. High Sierra Timber Management plays a big role in that

effort by masticating small trees and brush, sending logs from sick and dying trees to sawmills, and chipping trees too small for making lumber. The company supplies much of the chips to power plants for biomass fuel to produce electricity.

High Sierra Timber Management is based in Twain Harte in north-central California,

roughly 115 miles southeast of Sacramento. It provides a wide range of services for federal, state, and private land managers, such as traditional timber harvesting, thinning, clearing utility corridors, and assisting in wildfire suppression operations. This summer the company was working on a 1,000-acre tract north of Yosemite National Park that is



Wesley Brinegar and his wife, Yeta.



The company is equipped with three Diamond Mowers DC PRO X mulching heads like the one shown on this Bobcat skidsteer. 'Their mulcher heads are just phenomenal,' says Brinegar, who does field testing for Diamond Mowers.

a project for the Stanislaus National Forest. The project's main goals are to increase forest resilience to wildfire and other natural disturbances, reduce the spread of invasive non-native plants, and provide economic opportunities to local communities.

"It's a great project," said Wesley Brinegar, the owner of High Sierra Timber Management. "It's not going to solve all of our issues — these forests are extremely unhealthy — but the Forest Service is trying. It's been a very long time since we've had this kind of effort, this kind of budget, for thinning and reducing fuels. It's a really exciting time."

Most of his company's work in recent years has been fuels reduction. "About 80 percent of our work load is for the creation of shaded fuel breaks," said Brinegar. "We do incorporate logging some green timber within these fuel breaks, and some salvage logging for biomass power plants. These are contracts funded by the Forest Service but implemented by the counties under Master Stewardships Agreements that allow large-scale projects to happen seamlessly across multiple government agencies."

Brinegar, 34, started his company in Soulsbyville, California, in 2013 after serving four years in the Marines and two years with the Army. "We were involved in fire mitigation right out of the gate," he said. "I became interested in pursuing forestry mostly because of the needs I was seeing in the region." He had worked for a logging company prior to serving in the military. "Mike Albrecht, president of the American Loggers Council, has been a mentor of mine since I was a boy and has helped guide me and shape me to be set up for a career in forestry."

During the field season, High Sierra Timber Management employs eight people, including four equipment operators, two heavy timber fallers, a laborer, and a full-time office manager. Brinegar also works closely with a subcontractor, Clay Mermod, owner of Sawyer Tree Management, who has expertise in forestry and wildland firefighting.

For the Stanislaus National Forest project, the company works primarily along ridges to create shaded fuel breaks that slow fires and give firefighters safe anchor points for constructing fire lines and dropping fire retardant from aircraft. In the past two years, under a previous project, the company created about 3,000 acres of fuel breaks across the forest.

"We first go through and masticate all sub-merchantable material and leave the chips on the forest floor," said Brinegar, "leaving only properly spaced overstory timber. These fuel breaks still allow for a healthy, vibrant forest while creating anchor points for retardant drops and wildland firefighters to safely work and protect critical



Doosan 225 Road Builder at work with a Fecon BH-40 masticator attachment. High Sierra Timber Management can provide a wide range of services, such as traditional timber harvesting, thinning, clearing utility corridors, and wildfire mitigation.

infrastructure during any future megafires.

"There's a huge need for this kind of work here in the West," he added. "There aren't enough contractors to do the work that needs to be done."

Saw logs and smaller material is skidded to landings. Saw logs are supplied to two Sierra Pacific Industries sawmills. Small diameter material is either chipped in the

woods, using a rented chipper, or hauled to other markets. Pacific Ultrapower's Chinese Station facility, a 25-megawatt biomass power plant, buys both chips and small diameter logs.

"The Ultrapower plant produces about 35 percent of the energy for Tuolumne County,

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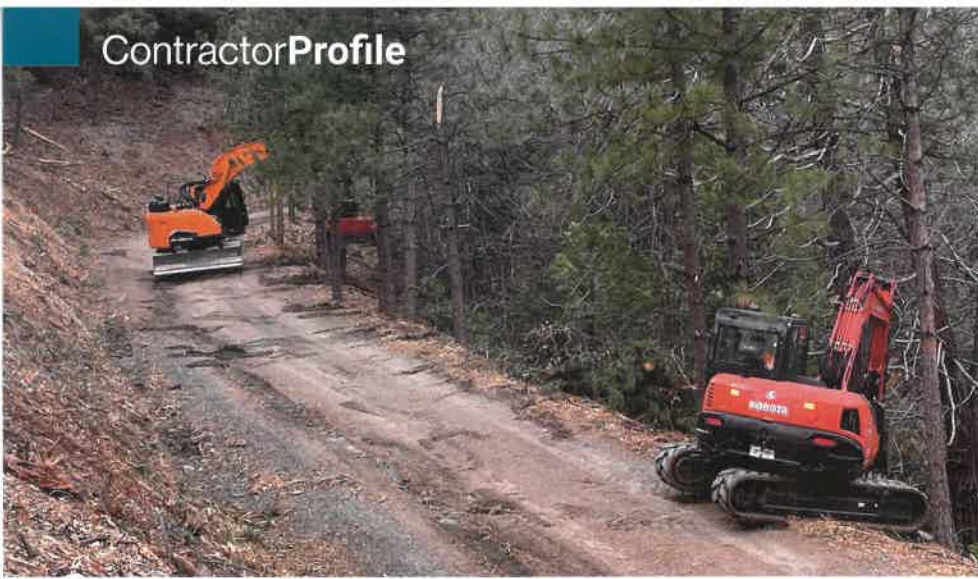


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High Sierra Timber Management, based in north-central California, has specialized in fuels reduction projects in recent years. These machines are masticating brush and small trees close to the road.

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and it's a super clean plant," said Brinegar. "They pay a higher rate for chips that we haul to them since they don't have to chip them themselves."

High Sierra Timber Management also supplies small logs to American Wood Fibers, which produces a variety of animal bedding

products. "They take hardwood, softwood, any size. They chip it up and dry it, and make high-quality shavings for people who have horses and other animals," said Brinegar.

The company recently purchased a Raptor 500 tracked vehicle from Prinoth Vegetation Management North America, which is based in St. Peter, Minnesota. "The Raptor 500 is the most powerful machine

of its kind that I know of," said Brinegar. "It has a direct-drive shaft — they've done away with hydraulics. Hydraulics can heat up, and then you lose power. The direct drive shaft PTO-driven masticators are the future of mastication. It doesn't slow down. This machine can cover three to four acres or more in one day." By contrast, excavators equipped with masticating attachments can treat about half an acre to one acre per day.

The Prinoth Raptor 500, which comes with its own mulcher, is designed for challenging forestry work in rough terrain. It is powered by a Cummins L9 Stage V/T4f engine that generates 440 hp. The heavy duty drive line transmits all power to the mulcher with minimal losses via drive shafts. The drive system reduces fuel consumption and is 30 percent more fuel efficient. The under-carriage shape protects against obstacles like stumps and rocks, simplifies reverse rescue, and has a self-cleaning function. A comfortable, ergonomic, air-conditioned cab meets the highest safety standards.

Prinoth is based in Italy. Carriers are manufactured in Canada with distribution throughout North America. (For more information, visit www.prinoth-vegetation-management.com.)

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with a mulching head behind it,” said Brinegar, “to buzz over the ground and make it more park-like.”

Some masticator attachments, like those used on the Prinoth Raptor 500, also perform subsoiling or tilling some of the wood material into the soil. The process helps reduce soil compaction and adds organic material to the soil.

The company also has three Doosan excavators (235, DX-225LC, and RB-225 road builder), a Kubota KX-080 excavator, a Cat 518 skidder, and a Bobcat T-86 skidsteer. It also is equipped with two Fecon BH-80 mulching heads and three Diamond Mowers DC PRO X mulching heads for its machines.

“RGW Equipment in Livermore, California, is our one-stop-shop for all our machines and heads,” said Brinegar. “They have extensive knowledge in everything they sell and a wonderful support system.” He has purchased all his equipment through RGW Equipment except for some Diamond Mowers products purchased directly from that manufacturer in South Dakota.

“I work closely with Diamond, and I do a lot of testing for them,” said Brinegar. “Their mulcher heads are just phenomenal. They are extremely durable products. And they

are coming up with some interesting new technologies, such as carbide teeth that don’t create sparks (when they contact rocks), which is one of the biggest fears for us. The Forest Service won’t let us use regular steel teeth because of the danger of sparks starting wildfires.”

According to Diamond Mowers, its twin maul carbide teeth have a tooth life 3-to-5 times longer than steel, require no sharpening, and are ideal for rocky terrain and high fire-danger areas.

Brinegar would like to expand his business, although he is not planning any additional investments in equipment for now. He’s waiting to see how the economy fares in the coming months and year. However, there is plenty of work to be had, he noted.

“The timber industry in this area is just getting warmed up,” said Brinegar. “Every year for the past 10 years the Forest Service has opened up more and more opportunities for forest health projects, timber sales, fuel breaks, and large landowner grants to continue clearing our overcrowded forests, creating a healthier, safer, more fire-resilient landscape. I would encourage anyone interested in starting or investing in an already established company to do so.”

High Sierra Timber Management is a

Certified ProLogger company by Associated California Loggers and Brinegar is an active member of the association. His company pays “very competitive wages,” and employee benefits include a retirement plan, paid family leave, and paid time off.

Brinegar also is active in his community. He serves as a board member of the Tuolumne County Alliance For Resource And Environment. “It’s a local nonprofit with a powerful voice in our local and state government advocating for forest health through the use of logging, grazing, and utilizing a local workforce to achieve those goals,” said Brinegar. He also recently stepped down from being a board member for the Tuolumne County Fire Safety Advisory Committee to serve on the county’s planning commission.

Brinegar and his wife and three children enjoy hiking and camping in and around Yosemite National Park.

“We attend our local church regularly, and our kids are growing up in a quiet, beautiful logging town,” he said. “I’ve been married for 11 years to my dream girl, a beautiful, intelligent Albanian woman. Without her I would not be where I am today.”



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