

A Wine and (Goat) Cheese Affair

More about goats
and fire mitigation

IN ONE COMMUNITY goats have already become a much beloved part of the landscape.

Laguna Beach is a small town of 24,000 residents in Southern California with sandy beaches, picturesque canyons and coastal hills. In October 1993, a devastating fire-storm swept across 14,000 brush-covered acres and engulfed much of the town, damaging or destroying 441 homes.

For the last seven years, a small army of goats has been on regular patrol in Laguna Beach, eating the dense vegetation that can fuel a fire.

“The community understands based on the 1993 fire why it is necessary to reduce the fuel levels,” said Mike Phillips, an environmental specialist with the city who helps coordinate the goat program. “The goats are a cost-effective means of doing that. And there is an added benefit—people really like them.”

Phillips said it is not uncommon to see buses and cars come by to visit the goats when they are working downtown behind City Hall. There are also wine-and-cheese parties at local homes when the goats are stationed nearby.

Laguna Beach first started using goats in the early 1990s. City Manager Ken Frank brought the idea with him from Northern California when he moved south. After the fire, Laguna Beach received a hazard mitigation grant from the state of California and FEMA to expand the program.

Frank, who lost his home in the 1993 fire, said the value of the goats was clear even in the midst of that destructive blaze.

“The fire was moving toward our North Laguna neighborhoods, and before the flames reached the houses you could see them diminish when they hit the fuel breaks. Where we had the fuel breaks in North Laguna we didn’t lose a single house.”

But according to Frank, goats are not a panacea.

“Even where we saved the houses in North Laguna, firefighters were putting water on roofs. And heavy winds did push the fire across a 150-foot fuel break that the goats had created,” he said. “Goats are more effective and efficient than most other fuel reduction programs, but they are not a substitute for firefighters.”

In Laguna Beach, goats are one piece of the community’s overall wildfire mitigation strategy and their use is strongly supported by the local fire department, which implemented the goat program and continues to oversee it.

Today an average of 500 goats work year-round and cover approximately 1,445 acres annually. Fuel reduction is split between public lands around the town perimeter and strategically located private lots. The goats work a circuit and re-treat areas on a regular basis, costing the city general fund \$198,000 per year. Paying for the goats has not been an issue—Phillips said it is one of the most popular municipal programs.

The city’s agreement with the goat contractor establishes a specified amount of land to be treated; it is up to the contractor to determine how many goats will be necessary to achieve the goal. For example, heavy rains might mean more goats are needed to keep up with the increased vegetation.

The contractor also handles all of the logistical arrangements associated with the goats, such as erecting the 200-foot by 300-foot pens in which they work. An on-site herder is responsible for their day-to-day care.

To determine the cost-effectiveness of the goat program, Laguna Beach conducted a field test. A 10-person hand crew and 550 goats were each put on a one-acre lot. The hand crew took 7.5 hours to clear the acre while the goats took less than seven hours. The crew cost the city \$1,125 (based on \$15 per hour per person), compared to the

\$542.46 per-day cost of the goats—a savings of \$582.54.

“And the test was somewhat skewed because we used relatively flat terrain,” Phillips said. “It would have been much more difficult for the hand crew had we put them on steeper hillsides.” The city still uses hand crews on individual lots in the interior of the town.

Frank and Phillips had a few suggestions for other communities that might consider a goat program:

- ✓ Address environmental impacts. Before introducing goats hire an environmental consultant to walk the area and identify

sensitive plant species to be protected. Also be aware of existing environmental regulations.

- ✓ Be sensitive to community concerns. Talk to residents before putting 500 goats on a hillside — in Laguna Beach there were questions about the goats’ effect on water quality.
- ✓ Consider the long-term commitment. Goats may not be as cost-effective if they are on shorter, temporary assignments or if they work on smaller areas.

So far, there has not been a major wildfire in Laguna Beach since 1993, but even after small fires the city gets calls from residents asking when the goats can come. ■

