

# Turning (Waste) Water Into Wine?

## A Colorado wastewater treatment plant plans to enter the wine business

It's not every day that you'll find "wastewater" and "wine" in the same sentence. But such is the case in Clifton, Colo., where Brian Woods, an "outside-the-box thinker," has a plan to convert some of a Colorado sanitation district's reclaimed land into a moneymaking vineyard. Woods is manager of Clifton Sanitation District, a small wastewater district that has just recently completed a new \$23 million treatment plant for its 18,000 customers in western Colorado. Now the district is closing the old wastewater lagoons it formerly used for treatment and is reclaiming the land for other uses. "Our goal is to make the best, most effective use of everything on the site," Woods said. "For many reasons, farming makes a lot of sense." But why grapes? "Why not grapes?" Woods said. "Wineries are popular in this part of the state, and a vineyard would make a good reuse of the property. It gives us an opportunity to use our treated effluent for irrigation. Plus, we're in a high visibility location. A vineyard would be much more pleasant for our customers to look at than our treatment plant." Soil tests conducted by the Colorado State University (Fort Collins) Department of Soil and Crop Sciences, along with feedback from local grape growers, confirmed that soil conditions at the site are suitable for growing Riesling grapes, Woods said. "Everything we've seen so far is favorable to the idea," he said.

### A Tough Row to Hoe

A fully functional, revenue-generating vineyard, however, is still years away. The district first must perform site reclamation and has allocated \$950,000 for removing and composting sludge from the old lagoons, which then will be buried. The vineyard will not actually be planted on top of the old lagoons but on other land at the 24-ha (60-ac) site, Woods said. Once that work is accomplished, the district will begin sowing the seeds for future returns. As Woods acknowledges and grape experts confirm, starting a vineyard is a capital-intensive process that takes special expertise and a 7- to 10-year horizon before growers can expect to achieve a substantive return on their investment. The first 3 to 5 years, in particular, require significant investment in the infrastructure needed for grape production — all with no appreciable financial return to speak of. This includes the purchase of grapevine rootstock, wire, stakes, and equipment, as well as other fixed costs. Labor costs can be substantial in these first years, too, as semiskilled labor is needed for planting, weed control, proper positioning of the vines, and other ongoing care. Woods hopes to minimize these labor costs by tapping prison inmates from Garfield and Delta counties to provide some of the labor for the vineyard's installation. A similar approach helped the district come in \$400,000 under budget on the construction of its new \$23 million wastewater treatment plant, he said. Even with reduced labor costs, Woods estimates it will require a minimum investment of approximately \$25,000/ha (\$10,000/ac) to bring the grapes to production. Initially, Woods said the district intends to test the vineyard concept by planting 1.2 to 1.6 ha (3 to 4 ac) with grapes. Presuming all goes well, he expects the district will use an additional 12 to 16 ha (30 to 40 ac) of its 24 ha (60 ac) of land for agricultural purposes, which eventually could include alfalfa, fruit trees, and other "boutique" crops. Woods is quick to point out that he is no farming expert, nor does he expect to be. He doesn't expect the district's other six employees to become experts either. "Farming is not easy work, and grape growing especially requires a lot of manual labor and specialized knowledge that we don't have," Woods said. The plan is for the sanitation district to provide capital for the vineyard's construction and then contract out management of the land to local farmers. When grape production begins in earnest, the district intends to contract with a local winery to process the grapes into wine and market the finished product. While the vineyard and other agriculture activity are anticipated to contribute financially to the district's operational revenue, Woods' expectations are modest. "Depending on how things go, I'm expecting that within 7 or 8 years, we'll be bringing a few

thousand dollars a year," Woods said. The district's annual budget is currently \$2.2 million. As for a name for the wine they might someday produce, Woods isn't prepared to speculate. "We'll leave that to your readers' imaginations," he said. "The possibilities are endless."

— *Mary Bufe, UE*