Grapegrower turns to above-ground rain storage

Wrangling water for grapes

By MIKE TRELEVEN
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As demand on Napa Valley’s groundwater continues to grow and as vineyards continue to produce world-class wines, many growers are turning to above-ground irrigation ponds to water winegrapes.

During the wet winter months, tubes called French drains that are buried in the soil collect the rainwater and pump it into a nearby above-ground pond. That water is then used during the dry summer months to irrigate the vines. The azure ponds can be spotted sporadically throughout the valley.

The owners of Clos Pegase Winery near Calistoga are firm believers in irrigation ponds and understand the winery cannot rely on groundwater all season to supply the vines. Currently, they have four irrigation ponds throughout the valley.

Recently, the Upvalley winery noted the completion of its fourth irrigation pond, which takes up about 2.8 acres of land and irrigates a 35-acre cabernet sauvignon vineyard. When full it holds about 22 acre-feet of water.

An acre-foot is enough to fill an entire acre of land with one foot of water.

“We are not drawing from the underground aquifer anymore,” Shaun Richardson, vice president and winemaker said at the site of Clos Pegase’s newest irrigation pond. “We are simply diverting water that would eventually flow back to the ocean.”

Richardson acknowledges that irrigation pond technology is not new, but Napa Valley growers may have to consider the concept as demands on the underground aquifer increase.

Richardson believes there will be even more demand from people wanting to tap into the underground water supply. “Demand on the aquifer is one of the biggest issues for me, and people are going to be using it more and more. If the state ever decides to regulate groundwater, more farmers will likely start looking at this type of thing,” Richardson said.

The well at Clos Pegase’s vineyard north of Calistoga had a bad habit of running dry late in the growing season. But now, Clos Pegase has a guaranteed water supply.

A second well was drilled, but the water was so high in boron it was unsuitable for irrigating grapevines, according to Richardson. A third and deeper well ended up running dry in early September.

That is when Clos Pegase decided to put in a $400,000 irrigation pond and use the rain water that was being drained off and allowed to flow into nearby Garnett Creek.

“So why not recapture that water and pump it into a pond and use it later when it was needed,” said Richardson.

The bottom line for him was for the vines to have enough water to produce the best quality wine possible. He also said by removing the rain water from the soil, the roots of the grape vines are much healthier because they no longer get waterlogged.