

Sinagua Malt Investment Project

Project Description and Outcome

In 2019, the Nature Conservancy in Arizona invested \$200,000 in Sinagua Malt to ensure capital was available to this start up business that would drive the demand for low water use barley and other small grains on historically irrigated lands in the Verde Valley. This project has resulted in reduction of consumptive use on about 100 acres annually since 2018, equivalent to 32,585,000 gallons each June when the river is at its lowest point. This reduction is a result of switching from traditional crops of corn and alfalfa to barley, which does not require water in the hot summer months due to being harvested in June.

In June 2021, the Conservancy completed the sale of its Sinagua Malt shares to an independent investor who plans to scale the operation up to 700 acres annually by the 2022 growing season. The Conservancy received \$100,000 for the sale of its shares, while retaining the “claiming rights” for reductions in consumptive uses and Sinagua remaining committed to sourcing from historically irrigated lands in the Verde Valley.

Economic Driven River Conservation

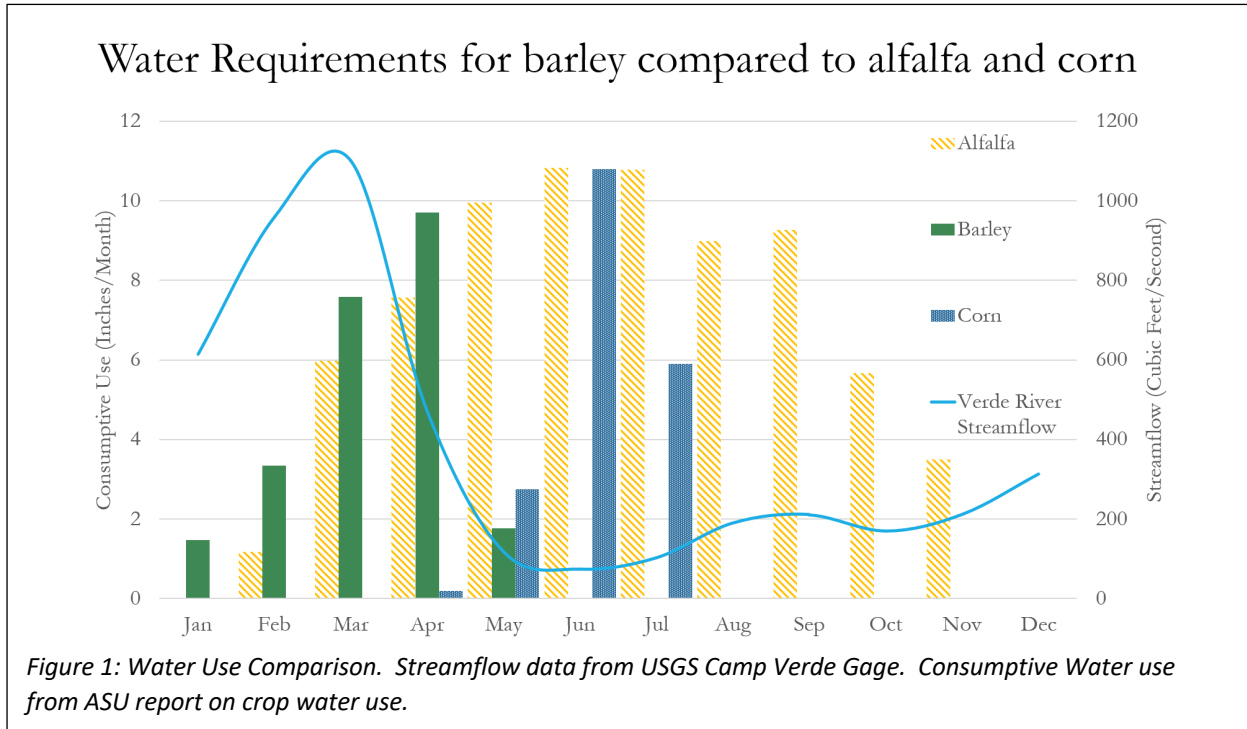
Sinagua Malt was established in the Verde Valley to provide Arizona brewers with a local alternative for malt. By developing a malt house in the Verde Valley, local farmers have an outlet for barley at a similar cost to other commodity crops. In 2016, Sinagua partnered with The Nature Conservancy to pilot growing an initial crop of barley in the Verde Valley. They contracted to have the barley malted and provided it to local breweries to produce beer.

Why does it matter?

The Verde is one of the hardest working and last living rivers in Arizona. It supplies water for agriculture and recreation throughout the Verde Valley before it enters the Salt River Project’s management area where it is used again for drinking water, industrial use, and agricultural uses. Given the demands on the river, projects that reduce consumptive water use add resiliency to a stressed resource. The graph in Figure 1 compares the monthly consumptive use of traditional crops and



barley with the annual hydrograph of the Verde River. When streamflows are at their lowest, barley water use is minimal while traditional crops have peaking water use.



Connecting Strategies

In 2020, the Conservancy and partners released the first ever Watershed Report Card that identified the Verde’s baseflows as one of the lowest scoring indicators of health across all subregions of the watershed. (See Figure 2, and learn more about the report card at verdereportcard.org.) The Sinagua Malt project directly reduces consumptive use of baseflow while also leveraging other strategies to improve baseflow.

Building a strategy that honors and preserves the local agricultural character of the community has resulted in various stakeholders’ buy-in for a variety of conservation projects that have been launched since this project began. This includes Yavapai-Apache Nation seeking advice for development of their long-term farm planning and agricultural interests supporting groundwater modeling efforts.

