

Natalie Mast, Douglas AMA Planning Manager
Arizona Department of Water Resources
1110 West Washington Street, Suite 310
Phoenix, Arizona 85007

Re: Public Comment on Douglas AMA Management Goals

Dear Ms. Mast:

Thank you for the opportunity to comment on the AMA Management Goals for our area. My husband and I own a small family vineyard near McNeal, Arizona where we have been raising grapes for approximately 9 years, enjoying the amazing landscape and raising our 2 grandchildren. Conservation is an important part of our life, consistent with my degrees in Biology and the sciences, so we understand and appreciate the strong need to protect our water supply. However, the AMA, as it is currently drafted, will have far reaching detrimental effects on the community, individuals, economies, and ecosystems. These restrictions will not help you achieve your objectives. As written, the AMA disproportionately impacts small scale water users, who have a minimal impact on the water table. At the same time, it is giving the largest water users, with the most impact on the water table, an option to be exempt from most of the new restrictions. Ultimately this gives entities who are already using most of the water to continue using the same amount of water, which will result in minimal to no reduction in actual water usage. In addition, this will result in a huge loss to small business and independent entrepreneurs while failing to make any significant change in the water use in the area.

Please consider the following facts:

Water Application Requirements of Crops and Livestock

Alfalfa, 5.4 acre-feet/acre/year,*

Cotton, 4.5 acre-feet/acre/year *

Corn for silage, 4.1 acre-feet/acre/year *

Wheat and Barley, 3.1 acre-feet/acre/year *

Corn for grain or seed , 3.0 acre-feet/acre/year*

Wine grapes, 1.3**

Dairy Cows, 30-50 gal./day/lactating animal***

Pecan Trees, 150-250 gal./day/mature tree (assume 27 trees/acre, 4.5 – 7.6 acre-ft/acre/year)****

1 acre-foot = 325,851 gallons

*USDA, Farm and Ranch Irrigation Survey, 2013

**Southwest Wine Center, Yavapai College,

***Penn State University

****New Mexico State University

Some crops can be planted and harvested more than one time a year. Wine grapes are harvested once a year and watering is cut back during fruit ripening and can be turned off during dormancy. The season of the most water need is during the monsoon season and often the vines receive enough atmospheric water that watering can be shut off. Vines actually do not like “wet feet”, do well in well drained soil, and are one of the few crops that can survive a drought.

Agriculture in Cochise County is heavily dominated by sprinkler application. However, most, if not all, commercial vineyards use drip irrigation. Due to evaporation, sprinkler systems can require roughly 3 times more supplemental water than a drip system (Georgia U. Extension). In the case of a drip system it is applied directly to the wine grape vine's root area, creating significant conservation of water.

Wine grapes are a low acreage/high density crop and makes a significant contribution to the economy of the State. Economic contributions made through wine grape growing, wine making, and wine sales in Arizona in 2019 was \$72,7 million (UA, “Vineyards and Wineries in Arizona). If we count in new

investments in vineyards and wineries and associated multiplier effects the total contribution was \$159.6 million in sales and \$78.3 million in gross state product. This does not count in the sales tax advantage to the State. In addition wine grapes supported nearly 1,200 jobs in 2019 when including multiplier effects of ancillary business supported because of the wine industry (UA, "Vineyards and Wineries in Arizona).

An important source of revenue for the state is agritourism, including tasting rooms, tours, festivals, hotels, and restaurants. A 2017 study showed that wine tourism brought in \$56.2 million in sales, 641 full-time equivalent jobs, and \$3,6 million in local and state tax revenues (Fitch,et al., 2017).

In summary, the proposed plan does not cover some of the most important aspects of the situation. Lacking fairness will not help to achieve the goals of this AMA and will alienate people away from your stated goal. It fails to predict the direct costs to the community and it's citizens. A carve-out for any low volume user that is contributing to the conservation goal should be made instead of punishing them for participating. The plan for the AMA as currently written needs to be suspended and reconsidered with proper consideration to the economic and environmental impact to the area. Furthermore, any future decisions on the AMA need to be fully communicated to and made with those in the effected areas.

Thank you kindly for your attention.

Sincerely,

Susan J. Peper
B.A. Biology
B.S. Pharmacy
PhamD

cc:
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