

## Water Conservation Management Program

The WCMP is not just a mobile irrigation laboratory, it's a vehicle to accomplish Arizona water conservation efforts through the support of the Arizona Department of Water Resources and facilitation by the East Maricopa Natural Resource Conservation District and their partners.

The WCMP is managed by an accomplished irrigation water manager who has completed the Cal Poly Irrigation Training and Research Center's irrigation management short course, is a certified Auditor through the Irrigation Association, has held an Arizona Licensed Contractor license as a Commercial and Residential Irrigation Contractor, has managed an Arizona farming operation, and has been providing irrigation water management (IWM) services in central Arizona for nearly 20 years.

The WCMP helps producers throughout the Phoenix AMA conserve water through a close working relationship that not only provides a snap shot of an irrigation event's performance by conducting a Standard Evaluation but also takes into account any on-farm management practices that may have an effect on irrigation efficiency. In order to effectively assist a producer with managing his resource, consideration must be given to the overall on-farm practices. For example, when assessing the irrigation management of an alfalfa crop, other non-event specific management practices must be addressed to fully understand the potential for water savings. Some of the non-event specific management practices that must be considered are

- How old is the crop?
- What's the harvest interval?
- Does the grower harvest & bale his own hay?
- What's the potential for flexibility in the amount of water delivered to the farm?
- What are the grower's border/berm management practices?

The WCMP worked with a grower in Tonopah this season and essentially reduced water use by half. After assessing all the management practices the grower was using and completing a Standard Evaluation, the WCMP realized an entire irrigation event between harvests could be eliminated without compromising the productivity of the crop. The following quote was received from the grower on April 29<sup>th</sup> of this year, "per last recommendation of irrigating alfalfa one time between cuttings, we executed the single irrigation and are cutting the field today. Visually, I can tell you the yield will be almost identical, meaning the extra irrigation is not necessary up until the month of May and you are saving us an untold amount of money. I will remember that. Thank you sir." The reduction of irrigation use on this field, alone, is over 1.5 acre feet per acre for the year. Not all operations can have this much success but through the experience and knowledge of the WCMP and the willingness of the grower to cooperate with the program, he has added to the sustainability of his business.

A cotton producer in the Queen Creek / Florence area also realized the benefits of cooperating with the WCMP this year. Again, an assessment of the overall management practices, in addition to conducting the Standard Evaluation provided the WCMP insight into non-irrigation event factors that were effecting the irrigation efficiency. Ultimately, the WCMP realized the practicality of "trafficking" or "compacting" the field's furrows after each cultivation. The intention was to reduce intake rates, make them more predictable and uniform, and provide more flexibility or control over his irrigations. Somewhat, skeptical the grower agreed to try it, realized the benefit and will be trafficking furrows after each cultivation while he remains in business. A follow up Standard Evaluation estimated a water savings of approximately 1.25 – 1.5 acre feet per acre during the growing season.

The WCMP doesn't simply conduct Standard Evaluations. The WCMP actively pursues the conservation goals of this AMA by working closely with water users to provide them with the best irrigation management services it can.

The East Maricopa Natural Resource Conservation District and the WCMP sincerely appreciates the continued support of the Arizona Department of Water Resources and the Ground Users Advisory Council.