

CONSERVATION -2

USING RECYCLED WATER PLANT WATER FOR IRRIGATION

In the previous article we suggested several alternatives to currently used irrigation techniques that will save you water and money. This article will explore the use of recycled water as a conservation step for saving ground water.

In 2008, MUD 8 is processing approximately 360,000 gallons per day of recyclable water through the Recycled Water Plant. This recycled water is processed to Texas Commission on Environmental Quality (TCEQ) required standards and discharged to Lake Conroe. Recycled water is expected to increase to 500,000 to 600,000 gallons per day by 2015.

MUD 8 and MUD 9 are working with our engineers to determine an economic and effective way to use this recycled water for irrigation replacing treated ground water, avoiding LSGCD surcharges on this component of water used and obtaining an incentive credit from LSGCD for using recycled water in conservation efforts. The cost of this recycled water per 1,000 gallons is approximately \$1.00 to produce from ground water and \$2.71 to treat to TCEQ specifications for a total of approximately \$ 3.71 per 1,000 gallons and we throw it away today by discharging into Lake Conroe because we have not YET installed infrastructure to substitute recycled water for irrigation use.

Since we have already paid \$3.71 per thousand gallons to pump, process, and treat this recycled water, it is in our best economic interests to find a suitable way to re-use this water resource for irrigation purposes. Every gallon of recycled water that we can re-use avoids the production of ground water or purchase of treated surface water and saves us both the LSGCD surcharges and production costs.

Using recycled water for irrigation is widely used in Texas and is regulated by TCEQ. Special processing is required to assure quality suitable for human contact. Additional processing and infrastructure to distribute recycled water for irrigation is expensive. However, it appears to be less expensive than using treated surface water, (at May, 2008 LSGCD projected cost for treated surface water) to save an equivalent amount of ground water.

500,000 gallons per day of recycled water in 2015 amounts to 182 million gallons of saved ground water per year out of a projected use of 700 million gallons of ground water without conservation. This projected volume of recycled water amounts to 26 percent of 2015 projected ground water requirements or just short of LSGCD mandated 30 percent reduction in ground water by 2015. Combining changes in the way we irrigate and implementing recycled water irrigation, should allow us to achieve 30 percent in groundwater reduction by 2015.

MUD 8 & MUD 9 will be working diligently in the near and longer term to develop acceptable treating and economic distribution systems to use our recycled water to back out ground water. We will advise you from time to time on progress toward this goal.

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