

# Recycling for irrigation or drinking water?

Wastewater Plant effluent water normally flows into the river from most cities and is picked up by downstream users for treatment into drinking water or irrigation of farmland. However, the El Paso Water Utilities (Public Service Board, PSB) has in recent years promoted the Purple Pipe Project (recycling of treated wastewater for irrigation) as an efficient way to reduce drinking water demand because it would normally be a lost resource.

At first glance, most reasonable persons would agree with the PSB. In order to determine if recycling for irrigation is a good idea, one should compare cost and benefits of the Purple Pipe Project with recycling for drinking water use. In a visit to the epwu.org website, one can find a statement that EPWU uses to justify the Purple Pipe Project: "Every gallon of reclaimed water that is used for irrigating crops and landscape or for construction

or manufacturing is one gallon of potable water that is saved that does not have to be pumped out from our aquifers or needs to be treated from the Rio Grande River."

This statement implies that treatment from the Rio Grande River or acquifers is more difficult and expensive than using it for irrigation purposes. Actually, the opposite is the case. The Purple Pipe Project is a subsidized program from water production revenue. In other words, there is no return on the investment. Because it is not being used for the higher drinking water use, the PSB can only charge about one-third (\$0.47/thousand gallons) of the amount charged for drinking water use (\$1.50/thousand gal-



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The M & O cost far exceeds the \$0.47 per K gallons rate, but if the wastewater effluent was blended with river water at the water plants' intake, the value of it would be raised to the drinking water use level after treatment and therefore have significant value. The water plant processes are capable of treating the blended wastewater effluent with the river water without changing existing plant processes. The current water plant processes are capable of treating the worst case scenario of 100% raw sewage.

There are many other negatives associated with the Purple Pipe Project. They are: 1. It requires a third pipe in the street; 2. There is higher bacteriological risk because TNRCC allows some amount of fecal coliforms; 3. Accidental ingestion is a real possibility at locations where it is used, such as schools, parks and residences; 4. It requires addition-

al maintenance and operational effort by the utility and 5. Since it is a subsidized program by all ratepayers, there is a concern about public money being used for private end users benefit.

Treating the wastewater effluent with the river water at the water plants will result in the following benefits: 1. Existing water distribution lines can be used; 2. Drinking water quality does not permit any fecal coliforms; 3. It requires no additional maintenance and operational effort by the utility; 4. Water revenue will exceed cost and 5. Available water supply will double and therefore eliminate withdrawals from the fresh water zone of the Hueco Bolson Aquifer.

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