

WATER USE PERMIT APPLICATION COMMENTS:
Application No. 13741

City of San Angelo (COSA) Application No. 13741
Proposed Bed and Banks Conveyance Water Use Permit

The following comments are being submitted regarding the above-referenced permit application on behalf of the Upper Colorado River Authority (UCRA) by Scott McWilliams, UCRA General Manager/CEO.

Standing:

Part of UCRA's mission includes protecting and enhancing the water quality of the Concho River. UCRA participates in the Clean Rivers Program (CRP) and routinely monitors this segment of the Concho River on a quarterly basis. UCRA has also provided matching funds and successfully completed many EPA/TCEQ grant funded NPS projects on the Concho River, resulting in significant water quality improvements. Moreover, through contractual agreements with COSA, UCRA currently has a right to receive up to 1,000 acre feet of water from their distribution systems. This water is marketed by UCRA to local entities, subdivisions and water supply corporations located outside the city limits of San Angelo.

Comments:

UCRA is concerned about the effects that the granting of this permit may have on water quality in the Concho River east of San Angelo and in COSA's treated water supplies. This proposed Indirect Potable Reuse (IPR) project was conceptualized after the citizens of San Angelo overwhelmingly rejected a proposed Direct Potable Reuse (DPR) project which consisted of pumping treated wastewater effluent from San Angelo's wastewater treatment facility (WWTF) directly to the water treatment plant for additional treatment and blending with COSA's other water supply sources. The only significant difference between the currently proposed IPR project and the rejected DPR project is the 8.1 miles of "environmental buffer".

As proposed, the environmental buffer for this project has an 8.1 mile river reach with a one-day detention and very little river water available for mixing with the effluent to provide any significant dilution. UCRA has seen no documentation of projected benefits from this buffer in any of the permit materials, but recognizes that very little reduction in organics, bacteria, viruses,

or endocrine-disrupting compounds (EDCs) will occur. In other of the State's currently operating IPR projects the environmental buffers consist of wetlands that slowly flow into large reservoirs which provide for dilution and extended detention times or underground injection aquifer recharge which also provides for dilution and long detention times.

It is a fact that no treatment train achieves 100% removal of contaminants, especially regarding the tens of thousands of EDCs. UCRA is concerned that with continued cycling of treated wastewater effluent, the looped system will accumulate contaminants that survive the treatment process resulting in public exposure.

UCRA understands that although not required by current federal or state regulation, designing and implementing a monitoring program that can detect the tens of thousands of harmful EDCs (and other contaminants) is not only impractical, but impossible. The inability to accurately detect contaminants of concern with certainty, renders measuring the removal efficiencies of the proposed treatment train impossible. Research scientists and regulators recognize these facts and haven't developed acceptable and universally agreed upon surrogates or testing methods.

The following comments speak to diminished urgency of this project.

In its supporting documents for the permit application, COSA used expected demand numbers from the 2021 Region F Water Plan. The 2026 Region F Water Plan uses expected demand numbers that are significantly less than those in the 2021 plan (see table below).

Comparison of Expected Water Demands for City of San Angelo							
-Values in Acre Feet per Year-							
	2020	2030	2040	2050	2060	2070	2080
2021 Region F Water Plan	19862	21706	22571	23666	24994	26438	
2026 Region F Water Plan		18958	20280	21506	22713	24030	25467
ac ft reduction in demand		2748	2291	2160	2281	2408	
% reduction in demand		12.66%	10.15%	9.13%	9.13%	9.11%	

- The green highlighted value for 2020 projected demand in the 2021 Plan is approximately 5,000 ac ft greater than San Angelo's actual current annual usage.
- The yellow highlighted value for the 2080 projected demand in the 2026 Plan is almost 1,000 ac ft less than the yellow highlighted 2070 projected demand in the 2021 Plan.

COSA's Drought Contingency Plan uses "the required minimum daily groundwater production coupled with the total amount of surface water available, ... from its developed sources" to determine the number of months of available water supply. The number of months determines Drought Levels and associated use restrictions. COSA currently enjoys a multi-year water supply availability. It is noteworthy that the calculations do not factor in over 7,000 ac ft of water currently developed and readily available on an annual basis from the Hickory well field.

COSA currently has the water rights in place to annually pump 12,000 ac ft of water per year from the Hickory well field in perpetuity. At full capacity this source alone would likely meet diminished demand in any near-term drought emergency. This observation would obviously not hold true in future decades with projected demand increases. Nevertheless, COSA should complete the Hickory well field project and bring it to operational full capacity.

COSA's Fort Stockton Holdings water supply project is scheduled to come online in the 2035-2040 timeframe, which is expected to supply an additional 5,000 ac ft of groundwater not susceptible to evaporation losses.

UCRA recognizes and does not discount opposition for Commission approval of the application. Many owners of land located adjacent to or near the river stand in opposition, as do farmers whose economic interests will suffer upon loss of the treated effluent they have used for years to irrigate crops, as do the members of the public who have drinking water safety concerns, etc.

UCRA recognizes and does not discount the need for new water source development at this and other locations in Texas. We understand population projections and the pressures on municipalities and other water suppliers to provide ever increasing water supplies. However, UCRA does not regard this project with its associated risks as appropriate to meet the water needs of San Angelo and the surrounding area.

UCRA asks the commissioners to carefully consider all potential ramifications that approval of this permit may produce. If carried out with the uncertainties inherent in this project, we will be performing a long-term human biological experiment, the outcomes of which are unknowable.

Finally, based on the comments we have put forth, UCRA offers the following potential conciliatory solution for consideration by the Commission. We believe that the best outcome would be for the Commission to approve the application but with restrictive special conditions. Those conditions are that the permit be granted but cannot be used except in those instances when the City of San Angelo cannot meet its legitimate water demand needs through full use of all its other developed and available water supply sources.

This solution would likely preclude its use for several years and provide time for the potential emergence of technological advances that may provide improved treatment methods and better monitoring capabilities.

Thank you for your consideration.

Respectfully,

-Scott McWilliams

General Manager/CEO

Upper Colorado River Authority