# Member Perspective: REIAC Southwest 4Q 2021 Breakfast Series – ‘Is there enough water?’

**By Cynthia Hammond**

Water is on the mind of investors when considering Arizona projects, with many questioning if Arizona has sufficient water to grow.

Christa McJunkin of SRP provided history and facts supporting why Arizona is well positioned to sustain growth despite declining water supplies. She summarized Arizona’s ingredients for success as 1) assured water supply, 2) water supply diversity and 3) water supply augmentation.

## Assured supply

Arizona is fortunate to have had strong forefathers who negotiated water rights for our state. Two key agreements are the Colorado River pact between seven Western states and Mexico that became the Central Arizona Project (CAP), and the Arizona Groundwater Management Act.

The CAP brings more than 40-million-acre-feet (AF) of Colorado River water to Arizona, with about half of its water going to farm use in Native American communities and in Yuma and Pinal counties, and the balance providing water for around 40 million people as well as for hydroelectric power.

The landmark Arizona Groundwater Management Act became law in 1980. This act legislated the use of water in a manner that is unique in the USA. This law requires new development to prove it has an assured *renewable* water supply for 100 years, before development can begin. Proof must be contained in scientific studies.

Since this Act became law, water use in Arizona has steadily declined. Today, Arizona uses 2% less water per person than in 1957, caused primarily by conversion of agricultural land (heavy water use) to urban (lower water use), and through the smart water use caused by the Groundwater Management Act.

## Diversity in supply

Arizona water comes from four sources – the Salt and Verde rivers (SRP governs), groundwater, the Colorado River (CAP) and effluent, or treated wastewater. SRP stores about 2.3 million AF water in seven reservoirs that it uses to manage water supply. Water is stored in wet years, and used in dry years. Water is delivered via canals to users.  This water storage creates a dependable water source during times of drought.

Groundwater is only used during droughts. Effluent began as a water source in the Grand Canyon in 1926. Today, treated wastewater is used 70% for agriculture, turf, with the balance used at the Palo Verde Nuclear plant, small amount for general water use, and to recharge the groundwater aquifer. Stored groundwater is managed by the Arizona Water Banking Authority.

Water challenges for Arizona are the declining Colorado River supply, infrastructure needs, and accessing additional supplies for growth. Water from the Colorado is divided among separate priorities composed of native American (1$^{st}$ priority), municipal and industrial (2$^{nd}$), and agriculture (3$^{rd}$).  The drought contingency plans will impact agriculture well before municipal and industrial use.

Infrastructure challenges are presented by reservoir sediment accumulation which reduces water storage capacity, and bringing CAP water to SRP served areas.  Solutions to these challenges are in progress.

Additional supplies of water are being created through innovative partnerships involving water storage and traded water credits through Gila River Water Storage (GRWS) and SRP. These water partnerships are used to provide the assured water supply for cities and major employers such as Intel.

Arizona has always planned its water management with arid conditions in mind. As a result, Arizona is well-prepared for changing water resource environment, and is planning for the future today.

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