

## Collaboration Through a Unique Partnership Called SROG

Transporting and processing wastewater for 2.5 million people is not a small undertaking, which is precisely why an innovative partnership between five AMWUA cities is vital to keeping everything flowing.

The Sub-Regional Operating Group (SROG) is a unique partnership between Phoenix, Glendale, Mesa, Scottsdale, and Tempe, who collectively own the 91st Ave Wastewater Treatment Plant, the largest of its kind in the Southwest. The facility began operations in 1958 and has expanded over time to meet the increased needs of the growing cities. It now treats an average of 140 million gallons of wastewater daily and can process more when required.



SROG is a distinctive example of how AMWUA cities continually pursue sustainability by working together and maximizing water through recycling.

While each SROG city owns and operates other individual treatment facilities, the shared ownership of the 91<sup>st</sup> Ave Treatment Plant brings collective efficiency and cost-savings. It has allowed the cities to streamline operations without having the added costs of continually investing and expanding their current operations to meet the ongoing population growth.

With the goal of continued innovation and sustainability, everything that enters the 91<sup>st</sup> Ave Wastewater Treatment Plant is reused as the cities understand the value of maximizing every drop. After treatment, the recycled water is currently being used for the following:

- Palo Verde Generating Station – Since 1979, SROG has been providing reclaimed water to Palo Verde Generating Station for cooling purposes. Palo Verde is considered the largest nuclear energy facility in the United States and is unique in that it is the only desert nuclear plant in the Western Hemisphere - an engineering feat.
- Tres Rios - The Tres Rios Environmental Restoration project involves the rehabilitation of nearly 700 acres in and around the Salt River, restoring a vital wetland and riparian habitat. The project creates a mutual relationship between the renewed wetlands and the reclaimed water from the wastewater treatment plant that is pumped over to the wetlands, where the plants and animals take what they need before it is discharged back into the river.
- Agriculture – The treated water is used to irrigate non-edible food crops.

However, the reuse at 91<sup>st</sup> Ave does not end there. A major benefit of the facility to the SROG cities is that it can process large amounts of solids extracted from all the wastewater transported to the joint facility. After those solids are extracted and dried, they are transported to local farms for fertilizer on non-edible crops, again demonstrating recycling and reuse efficiency.

In partnership with Ameresco, the 91<sup>st</sup> Ave Treatment Plant is equipped to reuse the methane naturally produced by solid waste, human or organic, as it decomposes and gets upgraded to natural gas. This brings environmental benefits by reducing their collective carbon footprint with reduced emissions.

The 91<sup>st</sup> Ave Wastewater Treatment Plant is a multipurpose facility; therefore, daily operations are not simple. To streamline that process and ensure consistency, the jointly owned facility is operated by the City of Phoenix, with regular cooperation from all partners and at the direction of various SROG advisory groups who discuss operations, finance, engineering, and planning.

With innovation and sustainability as a continual priority for all the AMWUA cities, SROG is a great example of how they are achieving that. Recycling wastewater may not be a viewer-friendly process, but the end result benefits us all as we must continually stretch our water sources.

The partnership and innovation at the 91<sup>st</sup> Ave Treatment Plan show that we already have a good foundation for the AMWUA communities to continue collaborating in the future with technologies to maximize our water supplies. This is especially important as communities throughout Arizona look at accessible ways to augment their supplies; maximizing water recycling is at the top of the list, meaning it has the potential to be used more regularly and needs to be considered an optimal near-term solution for bolstering our water supplies. Pursuing Advanced Water Purification (AWP), also known as Direct Potable Reuse (DPR), is one way our communities can be sustainable for the long term. This next stage of innovation and collaboration is anticipated to be part of a new partnership between cities as they look to expand the 91<sup>st</sup> Ave Treatment Plant further. This will result in a safe, locally controlled, drought-proof water supply, which is vital to our resiliency in our desert climate.

*For over 50 years, the Arizona Municipal Water Users Association has helped protect our member cities' ability to provide their communities with assured, safe, and sustainable water supplies. For more information, visit [www.amwua.org](http://www.amwua.org).*