

Advanced Water Purification Will Boost our Safe Drinking Water Supplies

Local municipal water providers are always looking for innovative ways to bolster and stretch their water supplies, especially here in the desert. A viable option for water managers is maximizing recycled water by using advanced purified water treatment technology. It is efficient and cost-effective on a large scale and would provide a more immediate boost to local water supplies. This is especially important as we face a long-standing drought, Colorado River shortage, and groundwater challenges.



Recycling water is not new. All water on our planet has been used and reused since the beginning of time.

Using advanced technology to purify recycled water through potable reuse merely speeds up the natural process while providing a needed, drought-proof water supply of higher quality than what occurs naturally.

For decades, water providers have been collecting and treating wastewater so that it can be reused over and over again. This process usually involves discharging treated reclaimed water into a groundwater basin, river, or lake before withdrawing it and piping it for further treatment and distribution. This process is called [indirect potable reuse](#).

Advanced Water Purification (AWP), or Direct Potable Reuse (DPR), is not a theoretical possibility but a positive reality that is available for us to embrace and not reject here in Arizona. With AWP, you don't have to rely on the environment to further clean treated recycled water. Instead, the advanced treatment further purifies the water so it can then be delivered directly to customers.

Purifying water in this fashion is not new. NASA has utilized this process for more than half a century. Advanced water purification is also being used or is being pursued in Singapore, Australia, the Middle East, India, Texas, Florida, and California. Locally, several Phoenix-area cities are planning to implement AWP in the near term because it offers a safe, reliable, robust, and renewable water supply that can be available sooner than any importation options.

- **AWP is safe and reliable:** AWP utilizes multiple treatment methods to purify the water further. The result is purified water that is cleaner than most bottled water and complies with or exceeds strict state and federal drinking water standards.
- **AWP enhances water security:** This water source is a drought-proof supply. It can enhance water supply reliability by providing a more immediate and direct source of drinking water than indirect potable reuse or water sources stressed by drought or shortage.
- **AWP is more cost-effective on a large scale:** The proposed regional facility for the Phoenix metropolitan area will need to treat 80 million gallons daily. That is an amount that indirect potable reuse cannot meet. Plus, it does not require storage and recovery, which brings additional savings. AWP would not require expanding the separate infrastructure used to convey non-potable water to certain end-users, such as golf courses and industrial facilities.
- **AWP is more flexible in a changing climate:** AWP is less sensitive to climate-related challenges, such as prolonged droughts, and can reduce our reliance on other water supplies.

This is a critical water source for Arizona's future, and science shows we can all have confidence in the technology. AWP will help desert communities become more resilient to drought conditions and ensure a consistent and reliable source of drinking water.

Legislation ([SB 1195](#)) has been introduced in Arizona's legislature that would prohibit the use of this valuable water source. As written, it would also question the use of current water supplies. The "ick" factor some may understandably have towards this water source is completely removed by AWP technology. Knowing all water is one water, every water source has been recycled at some time, but your municipal water provider always ensures the delivery of safe drinking water. With the water challenges we face, it is vital that all solutions, including Advanced Water Purification, remain available for us here in the desert. Please let your Legislators and other decision-makers know we cannot limit our access to this much-needed water supply.

For 55 years, the Arizona Municipal Water Users Association has worked to protect our member cities' ability to provide assured, safe, and sustainable water supplies to their communities. For more water information, visit www.amwua.org.