



Monterey Peninsula Groundwater Replenishment Project

Providing A Safe And Sustainable Water Supply

SCOTTSDALE, ARIZONA: CITY OF SCOTTSDALE WATER CAMPUS

Since 1998, the Scottsdale, Arizona Water Campus has produced 12 mgd of tertiary treated wastewater that is used primarily for use on parks, medians and golf courses. In winter, when irrigation is reduced, 10 mgd undergoes advanced purification at a state-of-the-art membrane water purification facility where microfiltration and reverse osmosis purify the water to meet or surpass drinking water standards before it is used to recharge groundwater sources.

Water Supply

Scottsdale gets about 48 percent of its drinking water from the Colorado River through the Central Arizona Project (CAP). The remaining water supplies come from groundwater (about 47 percent) and the Salt River Project (SRP) surface water (less than five percent). Surface water supplies are always vulnerable because there could be a lack of winter snow pack on the northern mountain areas. Therefore, having more than one surface water supply provides a backup supply when the other source is not available.

Advanced Water Treatment

Advanced wastewater treatment at the Water Campus is a two-step process capable of treating filtered secondary effluent to a level that meets or is better than federal drinking water standards. Microfiltration is a membrane process capable of filtering out particles as small as 0.2 microns in diameter, including viruses, protozoa and bacteria.

Reverse Osmosis (R.O.) is a membrane process, which uses water pressure to reverse the normal osmotic flow of water through a membrane. The R.O. membranes at the Water Campus are capable of filtering out virtually all of the unwanted organic, inorganic and microbiological substances that remain after the micro filtration process.

Recharge

Water produced from the R.O. process will be used to recharge groundwater supplies, by injection into a series of dry wells. R.O. water will be injected into these wells, and the water will flow through an additional 500 feet of soil, known as the vadose zone, before reaching the natural water table. The combination of membrane and soil treatment will insure that there will be no degradation of the ground water.

In 2006, the Water Campus recharged almost 6,000 acre-feet (1,955,106 gals) of reclaimed water and CAP water. Scottsdale will continue to expand the Water Campus and its recharge capacity. Scottsdale is also looking at innovative technologies to use some of our existing wells to put water back in the ground, instead of taking it out.

For more information contact:



Monterey Regional Water Pollution Control Agency

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