

Our Neighbor To the North

What's the difference between San Diego and Orange County when it comes to water? Same drought-prone climate, same end-of-the-pipeline fears for supply reliability, arguably the same general conservative political atmosphere. So what's different? Orange County has a well-planned, well-researched, and well-regarded groundwater replenishment system.

Despite politician-driven fears over "toilet to tap" in San Diego, Orange County has been doing it for years at Water Factory 21. Since the mid 1960s, the plant has injected treated sewage into the ground to create a seawater intrusion barrier to protect aquifers used for drinking water. More recently, the Orange County Water District (OCWD) has been using the treated water to directly augment groundwater supplies. Since January of this year, OCWD has been turning sewage into drinking water and injecting it into the ground. The project has been a huge success, earning the OCWD the Toshiba Green Innovation Award and the Stockholm International Water Institute Award, which some consider the Nobel Prize of environmental science.

OCWD uses the same technology that would be used as part of San Diego's IPR. The only difference is the storage of the purified drinking water. Orange County has the luxury of plenty of groundwater storage availability. San Diego doesn't have the same groundwater aquifers to rely on, so local water supplies are stored in above-ground reservoirs. Instead of injecting the treated water into the ground, San Diego would store IPR water for at least a year in reservoirs, augmenting our (dirtier) imported water supplies. Before reaching your faucet, the water would be treated again. There's no distinction in the clarity or safety of the water between groundwater recharge and reservoir augmentation, the treatment is exactly the same. It's the storage of the water which explains the different nomenclature.

OCWD has also received numerous grants and aid to help fund its project. The district received \$92 million in state and federal grants and \$86 million in subsidies from the Metropolitan Water District. The Orange County Sanitation District also paid for half of the project costs because it saved them from building a second ocean outfall for its partially treated sewage. The result is drinking water that is more pure than our current supply, at half the cost.

Through the Groundwater Replenishment System, OCWD produces 72,000 acre-feet of water, enough for 500,000 people each year. With reduced pumping of the San Joaquin Delta and increasing global warming impacts, that makes quite a difference. But OCWD isn't alone. The same technology is used around the world to provide drinking water to people living in arid climates. Singapore and several cities in Australia also turn sewage into drinking water for their residents. As a fellow arid city, San Diego should look to these places for guidance and follow their lead.

-- GABE SOLMER