



Where toilet-to-tap fears circle the drain

By Karla Peterson

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Test subject: The “toilet-to-tap” tour of the Advanced Water Purification Facility.

The big picture: The AWP Facility is the latest step in the city’s Water Purification Demonstration Project, which is designed to test the feasibility of turning recycled wastewater (Ewww!) into water that is clean enough to drink (Yum!).

As part of the campaign to convince leery consumers that the maligned and misnamed “toilet to tap” concept is neither as simple nor as gross as it sounds, the city is offering free public tours of the facility off Miramar Road. (You can register online at

purewatersd.org.) I joined one last week to see if a little bit of knowledge makes extreme water recycling easier to swallow.

Don’t drink me. Yet.: Like many civic events, this one starts with a Power Point presentation in a conference room. But the most immediate point of interest is the water that is served with the Power Point presentation.

“People always ask if the water is from here,” public information officer Alma Rife said, pointing at the pitcher of regular-reservoir water sitting next to the granola bars. “We always say that if you want to taste this (kind of) water, you’ll have to go to Orange County.”

And there you have it — the first revelation of the tour. The process of introducing treated sewage into the drinking-water supply is still in the experimental phase in San Diego, making the water treated at this facility not yet cleared for public consumption. But Orange County has been doing it since 2008, which means Disneyland visitors get some extra environmental bang for their bucks and those “Real Housewives” ladies have a great excuse for drinking all that Champagne.

Adventures in filtering: Not unlike a brewery, the water-filtration plant is a maze of tubes and valves and official-looking buttons that you have to restrain yourself from pushing as you walk by. Unlike a brewery, the desired end result is a product free of odor, color and flavorful organisms,

How does that work when your starter mix comes from toilets, sinks, showers and washing machines? Tour guide James DeCarolis walked us through the three-step process, which involves microfiltering, reverse osmosis (even more filtering) and UV light with advanced oxidation, a rather daunting-sounding procedure that involves injecting hydrogen peroxide into the water then blasting it with UV light.

The end product is similar in quality to distilled water, and the ultimate goal is to send this water to the San Vicente Reservoir, where it would be mixed with our regular water supply and treated again before ending up in our taps.

I can see clearly now: Most alarming term heard on the tour? “Municipal discharges.” Best tactile experience? Touching the inside a sample filtration membrane, which has the prickly, unyielding feel of telephone wires. Best visual aid? The beaker of AWP-filtered water, which I thought looked and smelled more drinkable than the stuff that currently comes out of my tap.

Word to the scientifically impaired: The AWP Facility tours are geared to the individual tour groups, and because mine included savvy people from the Scripps Research Institute, some of DeCarolis’ explanations were over my head. Fellow science-phobes might want to infiltrate an elementary-school tour, where the tour swag includes a helpful activity page, complete with Water Superhero maze and true-and-false water quiz.

The verdict: While there may be no settling the queasy stomachs of staunch objectors, the AWP Facility tour does an excellent job of showing that “toilet-to-tap” is a long and germ-blasting process that could give San Diego a safer, more ecologically sound future. Although the Water Superhero maze is harder than it looks.

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