

SAN DIEGO UNION TRIBUNE

Wastewater to tap water?

City to consider contentious project during time of drought

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Siobhan Loftus-Reid, an associate chemist at Escondido's wastewater treatment facility on Hale Avenue, tested water for presence of fecal coliform yesterday. (John Gastaldo / Union-Tribune) -



Highlights

Reclaiming water: A proposed project would clean wastewater to an “ultra-pure” state for drinking.

How: Wastewater would first be purified to irrigation standards, then sent through reverse osmosis, and finally treated with ultraviolet light. The water would be pumped into the groundwater basin, allowed to percolate through wetlands or stored in a reservoir for at least six months. It would be treated one more time before flowing to faucets.

How clean: Water officials say it will be cleaner than water from the Colorado River, one source of the county's water.

ESCONDIDO — Escondido is considering reclaiming wastewater for use as drinking water to augment its water supply.

In addition, the inland city stands to save hundreds of millions of dollars by avoiding upgrades to its sewage treatment plant and an ocean outfall pipe if the plan succeeds.

Escondido is paying a consultant \$50,000 to conduct a feasibility study. It is following the Helix Water District, which serves parts of East County, and the city of San Diego in considering the contentious idea, sometimes derided as “toilet to tap.”

The Helix board has approved an \$80 million project in hopes of supplying 12 percent to 15 percent of the district's drinking water. An environmental review is being conducted.

The city of San Diego has temporarily increased water rates to help pay for an \$11.8 million demonstration project at the North City Reclamation Plant at Eastgate Mall in University City.

But San Diego's demonstration project has faced protests. Opponents cited national studies indicating that reclaimed water can contain minute traces of hormones, drugs and chemicals, some of which are carcinogenic.

In Escondido, the debate has not yet begun because no one knows enough about the proposal yet. The consultant is expected to provide some of the answers.

“I have heard all sorts of negative things, but I don't know enough about the technology,” Escondido City Councilman Dick Daniels said.

“There are lots of solutions (to increasing the water supply). I haven't heard about them yet,” Mayor Lori Holt Pfeiler said.

“If it's made clean enough and safe enough to drink, I wouldn't be opposed to it,” Councilwoman Olga Diaz said.

Escondido uses about 11.4 billion gallons of potable water each year, about 25 percent of that drawn from the San Luis Rey River and the rest imported. Like all cities, Escondido faces cutbacks to its imports because of the ongoing drought.

Escondido's utilities director, Lori Vereker, said the reclamation project would be similar to Orange County's, which uses a three-step purifying process to produce what she calls “ultra-pure” water.

In Orange County, the water is first cleaned to a standard fit for irrigation, and then put through reverse osmosis to remove salt. Finally, it is treated with ultraviolet light and hydrogen peroxide to kill any remaining bacteria, said Shivaji Deshmukh, program manager for the Groundwater Replenishment system of the Orange County Water District.

The water is pumped into the water basin, where it sits for six months and percolates through the soil for further cleansing before it is pumped up by the water agencies, he said.

Tests have shown that the product is cleaner than drinking water from the Colorado River, which has treated wastewater dumped into it by cities along its path, Deshmukh said.

Escondido's project likely would be governed by state regulations now being drafted to ensure the safe use of reclaimed water for drinking, a state Department of Public Health official said.

Vereker said the wastewater treated through the three-step purifying process could be injected into the groundwater basin, allowed to percolate through wetlands or added to one end of a city reservoir and allowed to flow to the other side before it would be treated and piped to faucets.

“It's controversial,” Vereker said. “But we, as a region, are running very, very low on water.”

By reusing all of the city's wastewater, cash-strapped Escondido also could avoid upgrading its aging wastewater treatment plant and spending \$300 million to increase the size of an outfall pipe used to to discharge treated wastewater into the ocean, Vereker said. Both the plant and the pipe are nearing capacity.

Already, the city has run into trouble with the Regional Water Quality Control Board because of its inadequate wastewater facilities. In 2005, the city was fined \$1.8 million for 451 instances of discharging inadequately treated wastewater into the Escondido creek and the Pacific Ocean.

The fine was negotiated down to \$1.3 million this year, and is awaiting the regional board's approval next month.

Escondido currently recycles 4 million gallons of its daily production of 13 to 14 million gallons of wastewater, for irrigation and cooling a Sempra power plant. The city has the capacity to reclaim 9 million gallons but does not have enough money to lay the purple pipes, at \$2 million per mile, to transport the recycled water to customers.