

State develops taste for treated sewer water

Idea of drinking recycled waste gains acceptance

By Jill Leovy
LOS ANGELES TIMES

LOS ANGELES — The fastest-growing water supply in California comes from an unlikely source: human waste.

Water recovered from treated sewage is becoming an integral part of parched California's water supply. Despite high costs and worries over public squeamishness, the use of "recycled" water has increased by about 30 percent in the last year.

And it's not just for golf courses anymore. Reclaimed water has gained acceptance for everything from irrigating lettuce in Monterey to flushing toilets in Glendale. In a statewide first, San Diego is moving toward piping water from the local sewage-treatment plant directly into the city's second-largest drinking-water reservoir.

"We are pioneering a process ... to get people comfortable with the idea of drinking treated sewage," said Paul Gagliardo of San Diego's Metropolitan Wastewater Department.

California spews enough sewage into the ocean to meet a third to a half of the state's urban water needs, Gagliardo said.

He is among a small group of zealots who dream of a future in which Californians drink sewage, processed to levels similar to bottled water.

Those views are shared by crusaders such as Santa Rosa organic farmer Lawrence Jaffe, who sells vegetables nourished with recycled water using the slogan, "Close the loop," and Bahman Sheikh, a San Francisco consultant who likes to make the point by gulping down a long, cool glass of tertiary effluent.

"There is no reason to flush toilets with pure water from Mono Basin," Sheikh said.

Water reclamation in some form has been going on for a long time. Irvine is the granddaddy of reclamation in California, setting an as yet unrealized goal in the early 1960s of recycling all its sewage water for nonpotable uses. The Irvine Ranch Water District is still a leader, recently introducing re-

claimed water to office air-conditioning systems.

In another sign of the growing acceptance of recycled water, communities in the South Bay area near Los Angeles and in Livermore, have recently joined the Orange County Water District in approving the injection of treated waste water into underground supplies used for tap water.

The surge in water recycling has been propelled by improvements in technology, regulatory changes and a new crop of government subsidies for reclamation systems.

At the most advanced sewage-treatment facilities today, utilities employ reverse osmosis and micro-filters, devices that involve pressing water through microscopic membranes, similar to what's used at bottled water companies.

Today, California uses more than 450,000 acre-feet of reclaimed water annually. That's equal to the water consumed by two-thirds of Los Angeles in a year.

Advocates are fond of pointing out that while the state's reliance on water from the Sierra Nevada and the Colorado River is coming under attack, recycled water is the one source in California that is growing.

The uses of reclaimed water have multiplied so quickly that health officials have been scrambling to keep up. New regulations should be completed this year, said David Spath, chief of the division of drinking water with the state Department of Health Services.

Recycled water is used to make snow for ski areas, grow hay, make newsprint and concrete, dye carpets, hose down landfills and fill cooling towers in oil refineries. It has been proposed as a source of water to do laundry at San Quentin prison.

Throughout the state, independent sewer and water utilities are cooperating, and in the case of San Francisco, merging. Their engineers are taking on dual roles, and converting acre-feet — the conventional measure of drinking water — to gallons per day — the conventional measure of sewage.

In San Diego, consumer studies found that once people were briefed on water-supply issues and treatment methods, they usually accepted the idea of recycling readily.