



Boosting reservoirs with purified wastewater?

By Mike Lee

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Expanding facilities to recycle about 100 million gallons of wastewater per day could create a major drought-proof water supply for San Diego, according to a new two-year study being reviewed Wednesday at City Hall.

Report authors — advised by interest groups in the city — said the “bold vision” would provide long-term savings to ratepayers by mixing purified wastewater into the drinking water system.

There are several potential barriers to the plan, including the multibillion-dollar cost, the need for numerous approvals by regulators and residual unease among residents about putting treated wastewater directly into reservoirs.

But the strategies outlined in the **438-page final draft** of the Recycled Water Study also would bolster the city’s defenses against shortages and reduce future expenses for upgrading the city’s main sewage treatment plant at a cost comparable to current supplies.

“What we now have is a blueprint that ... will hopefully change the way we view sewage and water in our region,” said Marco Gonzalez, an environmental lawyer in Encinitas who pushed for the study in 2009. “The real take-away here is that we need to consider water supply and wastewater treatment holistically. We can no longer decouple them and pretend that they are wholly separate.”

The study also has support from the biotech industry, a heavy water user. “It takes a firm stance as to what our region needs to do,” said Faith Picking, water policy expert at Biocom, an alliance of biotech companies. “It’s a step. It’s advancing public opinion.”

Like others, she’s concerned about the cost of upgrades, pegged at about \$3 billion over 50 years. “Is the public going to approve us putting that money into infrastructure?” Picking said. “Historically, San Diegans don’t do that.”

The concept of drinking recycled water also has been hard for some San Diegans to swallow, particularly after it was dubbed toilet-to-tap more than a decade ago. But opposition appears to have softened. About two-thirds of respondents to a 2011 **survey for the San Diego County Water Authority** either strongly or moderately favored adding highly treated recycled water to the drinking water system.

The roots of this week’s report go back about three years. At the time, San Diego was trying to get approval for the Point Loma Wastewater Treatment Plant to continue discharging partly treated wastewater to the ocean without meeting the federal standard. It eventually got the permit in part because Gonzalez and his counterpart at San Diego Coastkeeper broke ranks with their colleagues and supported the waiver.

In return, Gonzalez negotiated an overarching review of the city’s sewage system — essentially, how to turn wastewater from a liability into a resource. San Diego Mayor Jerry Sanders battled with the Coastal Commission to ensure the city doesn’t have to follow through on the study’s recommendations, though that decision will be up to future elected officials. Sanders leaves office in December because of term limits.

The study will be presented to the City Council’s natural resources committee on Wednesday, then to the full council and the California Coastal Commission.

“If the council wants to pursue this, we basically laid out the pathway,” said Marsi Steirer, a top city water official involved in the report.

Perhaps most importantly, the study will become part of the debate over whether the U.S. Environmental Protection Agency should grant the Point Loma plant another waiver from Clean Water Act. San Diego is the only city in California that hasn’t committed to meet the secondary treatment level for discharges to the ocean and it’s likely the city will need a upgrade strategy to get another waiver in 2015. A retrofit to meet “secondary” treatment standards could cost \$1.2 billion.

Options outlined in the plan unveiled this week would reduce outflows from Point Loma by roughly half and slash the cost of future “secondary” upgrades by 37 percent, according to city figures.

In addition, purifying wastewater would add to the regional water supply — an increasingly important and costly undertaking. The latest study envisions about 93,000 acre-feet of recycled water a year being injected into local reservoirs, roughly enough to serve 186,000 homes.

That level of water treatment would take a major investment in facilities. The new report provides several options for maximizing or expanding the use of existing recycling plants and a proposed one near Lindbergh Field. It envisions treated wastewater would be piped to San Vicente and Lower Otay reservoirs.

The five reuse alternatives cost between \$2.7 billion and \$3.4 billion over five decades, producing water at between \$1,700 and \$1,900 per acre-foot. The city report shows the net costs could be slashed when accounting for savings elsewhere in the wastewater system, most notably smaller bills for Point Loma upgrades.

One of the big uncertainties in the financial outlook is how fast the price of imports from Metropolitan Water District will rise. If they increase at 6 percent a year, city projections show purified wastewater becoming cheaper by about 2025 and costing far less after that.

On the safety front, San Diego is in the final stages of pilot project to test recycled water with the California Department of Public Health. City-made purified water is being studied for the presence of more than 300 compounds. A final report is expected by the end of the year.

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