The Daily Transcript

Water Department unveils recycled water study

Would reduce dependence on imported water

By JERAN WITTENSTEIN

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The city of San Diego could create as much as 12 million gallons of drinkable water per day, enough to serve nearly 27,000 families per year, through an expansion of the city's recycled water program, officials said Wednesday.

The estimates, which were included in a year-long study conducted by the San Diego Water Department, outlined six possible strategies, which would help the city diversify its water portfolio and help meet future demand, said Marci Steirer, deputy director of the department.

"The purpose of the study is to develop ways to increase the amount of recycled water that is used in San Diego and surrounding communities," said Steirer.

San Diego imports 90 percent of its water from sources hundreds of miles away.

Recycled water helps offset the amount of imported water that San Diegans use and helps meet future water demand projections because it's a reliable and locally controlled source of water, said Steirer.

Critics question the health implications of drinking recycled water.

"I don't want to leave my grandchildren sewer water to drink, it's as simple as that. That's why we call ourselves the Revolting Grandmas," said Muriel Watson, a resident of Bonita, referring to a group she formed comprised of women opposed to recycling water for the purpose of drinking.

Watson said she is not against drinking recycled water that has been treated properly then put into the ground because "that's the natural cycle," as opposed to the proposals outlined in the study.

Under the study options, treated water would be added to reservoirs.
As part of the study, city staff engaged in a dialogue with community members in an effort to create awareness and generate input. A majority of the participants recommended increasing the use of recycled water for both potable and non-potable applications.

According to Watson, despite attending these seminars and participation forums, orchestrated by the city, she remains against the recycled water for drinking.

But John Liarakos, of the San Diego Water Authority, said the argument is arbitrary.

"There are approximately 30 discharge permits between Las Vegas and San Diego on the Colorado River that allow communities to take water from the river, purify it, drink and use it, run it through treatment processes and return it to the river for the next community to use. As you go further up the river the number of permits is in the hundreds," wrote Liarakos in an e-mail.

Dave Schubert, a professor of Cellular Neurobiology at the Salk Institute, was once a staunch opponent of recycling water for human consumption when the idea was introduced to San Diego in the 1990s. But now, since technologies have improved, Schubert said so has his opinion.

"If you look at the real numbers and the stuff coming out of the reverse osmosis procedures they use, it's much cleaner than the water we're drinking currently," said Schubert. "I don't think that's an argument."

If the City Council approves all the options, which it is not expected to do because many of the proposals overlap, said Steirer, the implementation could bring the city as much as 37 million gallons per day (mgd).

Each of the proposals coincides with the city's current recycled water capabilities. The North City reclamation plant supplies an average of 6 million gallons of non-potable water per day. The South Bay plant isn't

currently online, but Steirer expects it to be up and running soon, which would treat up to 6 million mgd. At the moment, all of the city's reclamation water is non-potable and used mainly for irrigation, which means it is treated to a tertiary level.

The city does not currently recycle water for the purpose of drinking.

There are three options for each of the reclamation plants, which range from building large advanced water treatment facilities and new pipelines to distribute that water to reservoirs to simply expanding the city's distribution infrastructure.

The first option for North City would be to expand the existing distribution system to Rancho Bernardo, Balboa Park, Mission Valley and Mission Bay. This would give the city the capacity to distribute 17.6 mgd at a cost of $284.7 million.

Option two would expand the existing distribution system into Rancho Bernardo along the Interstate 15 corridor and build a small-scale, indirect use project at Lake Hodges. This plan would be able to create 14.1 mgd of non-drinkable water and more than 2 mgd drinkable water, at a cost of $188.3 million.

The third option for the North City reclamation plant recommends building a larger-scale, advanced water treatment plant that would be able to produce up to 16 mgd of water -- 8 mgd of drinkable water, 8 non-potable -- as well as building an approximately 22-mile pipeline to take that water to the San Vicente Reservoir, where it would be blended with existing water supplies.

For the South Bay reclamation plant, the first option would create 11.6 mgd of non-potable water to be used by the Otay Water District and the Sweetwater Authority and would have a low cost of approximately $1 million for connecting and metering costs.

The second option would cost the city $21.6 million and would utilize pipes and the existing distribution system between the city and the Otay Water District. It would require the construction of some new pipes to transport water to the upper portion of Otay Reservoir. It would also require the construction of a small advanced water treatment plant, which would also deliver water to the Otay Reservoir. This option would create 2 mgd of

drinkable water and 8 mgd non-potable.

For $96.1 million, South Bay's third option would build an advanced water treatment plant near the existing water reclamation plant and transport water to the upper Otay Reservoir. This would be capable of supplying up to 6 mgd of drinkable water and 5.3 mgd of non-potable.

"One of the things that is important for people to know is all of the water that we use is recycled, either naturally or through an advanced treatment process," said Steirer. The advanced treatment process is a manmade way to emulate nature using state-of-the-art technology, she said.

The amount of non-potable water treated by the city could see a drastic increase in the near future when the city's second water reclamation plant in the South Bay comes online, not to mention if some of the recycled water options, included in the city staff's plan, are approved.

Steirer expects the San Diego City Council will take up the issue within the year, although there is no date scheduled.

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