

Recycled water project adds to Fresno water-rate debate

By George
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The new project, the purple pipe system, will recycle treated wastewater for use in the Fresno/Clovis metro area, delivering 25,000 acre feet for use in landscaping, industry and recharge purposes, which at full capacity could provide 15% of the city of Fresno's annual water needs. Video: John Walker THEFRESNOBEE

Fresno is turning its sewer farm into a drought-buster.

City Hall has started building the first phase of an advanced treatment plant that will deliver millions of gallons of water every day for non-drinking uses, such as irrigation of green space.

This initial step at the wastewater treatment facility west of town will cost an estimated \$100 million and could be ready to go in two years.

More steps are in the works. The project, when finished, could produce one of every six gallons of water consumed in some fashion by Fresno ratepayers.

City officials say this sewage magic will enrich Fresno.

Treated water “winds up being an amazing resource for the community because it’s always there,” Public Utilities Director Thomas Esqueda says.

Adds Steve Hogg, head of the wastewater treatment facility: “We get flow to this plant 24 hours a day, seven days a week. We have to treat it. That’s why it’s a very drought-tolerant water supply.”

But there is something else to this spiffy new treatment plant besides prudence — politics.

Workers are pouring concrete for the plant’s foundation at the same time the City Council wrestles with Mayor Ashley Swarengin’s proposed \$429 million upgrade to the entire water system. Council members are expected to vote Feb. 26 on higher rates needed to pay for everything.

Fresnans have been debating particulars of the mayor’s plan for nearly two years. These include a surface water treatment plant for southeast Fresno, new pipes throughout the city and recharge basins to preserve the aquifer.

All is designed to give Fresno a safe and secure water system in a region where the rains don’t always come as wanted, Swarengin says.

Critics of the mayor’s plan, and there are many, say there are better and less expensive ways to do the same thing.

But overlooked in this debate is the new treatment plant’s influence on Swarengin’s \$429 million project.

The new plant and its distribution system at full build-out are pegged to cost about \$400 million, yet this price has been met by yawns from the public every time the council approves another funding request.

“Both plans,” Council Member Lee Brand says, “are connected.”

Of course, the sewer farm gets steady business.

“People bathe, they use the washing machine and dishwasher, they flush the toilet,” Esqueda says.

All that stuff goes into sewer pipes and, thanks to gravity, ends up at the wastewater treatment facility about five miles outside town.

There is no shortage of numbers to this story. Three sets provide a good introduction.

Here it comes

- The facility gets about 60 million gallons of sewage per day (the peak some years ago was about 75 million gallons). This is about 67,000 acre-feet per year. An acre-foot (about 325,000 gallons) is more than enough to serve the typical family of four for a year.
- The sewage currently gets a two-part treatment. The biosolids are removed.
- As much as 35,000 acre-feet of treated water in a typical year goes to farms on or near the wastewater treatment facility and in an exchange deal with the Fresno Irrigation District. The rest percolates into the underground aquifer.
- The sewer farm covers about five square miles, with more than half devoted to recharge ponds. Still, the aquifer in that area sometimes gets more water than it can easily handle.
- Urban Fresno has been depleting its aquifer. The groundwater level sometimes drops more than a foot per year.

To the rescue

- The new treatment plant will add a third level of treatment to much of the sewage. Ultraviolet light will disinfect the water. This water is not meant for drinking, but incidental contact will not hurt you, Hogg says.
- The new plant will expand in phases during the next decade. The first phase now under construction will produce 5 million gallons a day. A new solar farm next door will help cut energy bills. Phase two boosts production to 15 million gallons a day. Phase three raises production to 30 million gallons a day.
- Thirty million gallons a day is about 25,000 acre-feet per year. Add that figure to recycled water headed to agriculture (35,000 acre-feet). The sewer farm would come close to recycling every drop of water that comes its way.
- The distribution system also would be built in three phases. In essence, the system will grow from its southwest Fresno roots to the northwest, then move to the east. Clovis is further along with its recycled water project. Hogg says he would love to see the entire Fresno-Clovis perimeter connected by a recycled water system.
- Hogg in one breath says it's hard for financial reasons to connect the system to inner Fresno. In his next breath, he explains how he wants to use strategically placed small treatment plants (fully enclosed, no outside odors) to bring recycled water to older areas. Hint: Don't be surprised if one of these small plants is within a stone's throw of City Hall. Recycled water is good for everyone, Hogg says.

How it fits

- Hogg's staff already is hunting for "anchor" users of the recycled water. He is talking about parks, golf courses, schools, median islands, common areas at apartment complexes, water-intensive industries. Start with big users, he says, then branch out.
- At this stage, Hogg says, it's too expensive to pipe recycled water to existing homes for use on lawns and gardens. He says such distribution infrastructure someday may be mandatory in new housing developments. Copper River Country Club in northeast Fresno, by summer, could get recycled water from a small advanced treatment plant already in the area, city officials say.
- Recycled water would be sold at a discount compared to drinkable water. Hogg says the discount might be 25% to 50%. Pricing drives sales, he says.

- The first phase is funded by low-interest state loans. The City Council gave the green light Feb. 5 on a portion of this financing. Hogg says the city has money from reserves and current rates to pay the debt service. He says he is counting on continued support from the state. Future rate hikes, too? That remains to be seen, Hogg says.
- The city currently uses about 135,000 acre-feet of water a year, almost all of it drinkable. Hogg says the use of 25,000 acre-feet of recycled water within 10 years, when Fresno's population almost certainly is bigger, will take considerable pressure off the city's water system.

Making the connection

Council Member Steve Brandau has no doubt about the value of recycled water.

"To me, it's part of the big package," he says.

Sometimes it seems everyone in Fresno has a different take on that package. Hogg's project as it gains public stature figures to add another variable.

For example, Brand says, whose recycled water is it?

This concept of ownership is gaining traction in the water debate. Swearingin wants Fresno to make full use of its entitlements to 180,000 acre-feet of river water in a normal rain year (60,000 from the San Joaquin, 120,000 from the Kings). History and policy get complex at this point, but it's sufficient for now to note that the city lets 110,000 acre-feet slip through its fingers in a normal rain year because it lacks proper infrastructure to use or save it.

Hence, the mayor's \$429 million plan.

The mayor's critics warn that use of any portion of the 110,000 acre-feet in certain parts of town may violate certain water agreements. City officials say they're confident such agreements can be amended. For now, there are only questions.

Brand says there may be similar questions about City Hall's freedom to use all recycled water in an unrestricted manner. Hogg notes that recycled water also could go to recharge basins and farmers.

Then there is the horse that left the barn, so to speak.

Swearingin needs four council votes to secure the water-rate hikes needed to pay for the borrowed money that will fund the system upgrade. She would love a 7-0 show of support. But the proposed rate hikes are steep. The monthly water bill for a typical single family residence could double in five years to about \$50. Customer concern has the attention of all City Hall politicians.

For that reason, Swearingin's \$429 million project is not a sure thing even as she promises the payoff to Fresnoans is a secure and abundant supply of water for generations to come.

Yet, Fresno ratepayers already have embraced without a peep of protest a water project nearly as expensive in the \$400 million recycled water plant. It's too late to turn back the clock on the first \$100 million.

How much flexibility does the council have on Feb. 26 if it says no to the \$429 million project designed for drinking water after saying yes to a \$400 million project for recycled sewer water?

Council President Oliver Baines, a supporter of the mayor's plan, says city leaders for too long have short-changed Fresno's future out of political expediency.

"I don't want to be that council member that, in 20 years, says, 'We had a golden opportunity — and we missed it.' "

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