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To: [Angie Garcia](#); [Michelle Wilson](#); scrwamail@ci.gilroy.ca.us
Subject: SCRWA and MH Council Meetings March 02, 2016 Recycled Water comments
Date: Monday, February 29, 2016 12:25:19 PM

South County Regional Wastewater Authority (SCRWA) Board
Meeting March 02, 2016
Agenda Item X. Communications
C. Santa Clara Valley Water District Update
- Recycled and Purified Water in Santa Clara County
Morgan Hill City Council
Meeting March 02, 2016
Agenda Item 11. Morgan Hill and South County Recycled Water Planning

I strongly support use of recycled water in the Gilroy area.

What troubles me about the consultant analysis and recommendations is what appears to be a senior-water-rights/junior-water-rights view which gives SCRWA and Gilroy recycled water now but prevents Morgan Hill from using its own effluent (both wastewater and greywater) in order to accomplish that in the southern part of South County now and into the future.

In the Morgan Hill study, the alternatives evaluated were

- 1) Transport recycled water from existing SCRWA WWTP to users in Morgan Hill
I am not a fan of pushing water uphill from Gilroy to Morgan Hill, both on an energy basis and because of potential interruption of service by natural disasters.
- 2) Recharge aquifers using recycled water to augment groundwater supply
Groundwater recharge in Gilroy does nothing to replenish the basin in Morgan Hill and San Martin.
- 3) Utilize a satellite treatment plant to produce recycled water in Morgan Hill
- 4) Promote "grey water" reuse systems in Morgan Hill

My comments to the SCRWA Board and the City Council focus on several areas:

- a) Are we using the right value system for making decisions about recycled water
- b) Who owns the inputs to the SCRWA plant
- c) Greywater and Building Codes Task Force
- d) Brine

Value system for making decisions about recycled water

Last May, in several Morgan Hill forums, I argued that the "20th century model" for making decisions about recycled water was that paying as little as possible for water was the primary consideration. And that we should replace that with a "21st century model" that is a choice between having expensive water and having no water.

[2015 Master Plan] None of the Morgan Hill alternatives were selected for implementation because these alternatives did not present enough benefit for expansion due to small water demands and the high cost of infrastructure that would be required.

Your analysis looks at capital costs (\$18M) and operation costs (\$1.5M). The section on Value of Recycled Water Supply simply rates alternatives

as low or high value. Dollar amounts are not provided to contrast costs. The analysis does not value a drought-proof source of water. We are not shown a value for recharge to keep wells flowing. We are not shown the value of augmenting imported water (when available) or substituting for it (when not available); the District pays real money to import water from outside the County.

If Morgan Hill had a scalping plant, we would have less volume to pay for at SCRWA and would also reduce the need for the Gilroy plant to expand.

[Staff Report Executive Summary to MH Council for March 2]

Typically, recycled water is sold to customers for less than the price of drinking water, but the cost to produce it ... would be far higher. For this reason, there is little value associated with operating a scalping plant to produce recycled water.

[Staff Report Executive Summary to MH Council for March 2]

While several alternatives for bringing recycled water to Morgan Hill were identified and scoped in the study, the final recommended capital improvement program does not fund any of them.

The primary reason for this is the high initial capital costs to pump recycled water uphill to the City of Morgan Hill.

The findings of the 2015 South County Recycled Water Master Plan Update will not deter the City of Morgan Hill from pursuing recycled water as a component of the City's future water supply.

The initial planning is in place with this 2015 study.

Who owns the inputs to the SCRWA plant

Morgan Hill takes second place to requirements for SCRWA to service existing (and by extension any new) distribution in Gilroy. Our need to have a source of recycled water in Morgan Hill must not be relegated to second-tier status.

Note that the 1992 Joint Powers Agreement [Section 6.1 Planning Policies] explicitly empowers Morgan Hill as a member agency to independently plan and/or construct its own wastewater and reclamation facilities.

[2015 Master Plan] The Morgan Hill Scalping Plant alternative was not selected due to potential risks of impacting the SCRWA WWTP influent composition (potentially leading to compliance issues), the possibility of lowering flow rates at times to the degree that solids settle out in the sewer trunk line, and the inability to meet existing customer demands during peak periods.

[Staff Report Executive Summary to MH Council for March 2]

A gray water system diverts water that would otherwise be destined for the sewer system and cause a reduction in the influent flows of the South County Regional Wastewater Authority (SCRWA) Wastewater Treatment Plant.

Greywater and Building Codes Task Force

The Water District has a multi-agency task force which has been meeting since September to revise building codes. It is rumored that technologies such as greywater, rainwater harvesting, stormwater capture, and on-site reuse are being considered. The meetings are not advertised, the public is not invited to observe, and no summaries or progress reports are produced.

I have seen at least two articles about homebuilders (one being California-based KB Home) who are selling new homes with built-in systems (from Australian company Nexus eWater) for reusing water. The system sends dirty water gathered in a tank under a house through bubbles, filters and a zap of ultraviolet light. The company's home greywater recycling system is the only one that has passed a key certification permitting the water it cleans to be used in toilets and on lawns under California's building code.

Laundry to Landscape is not news; supply for toilets is.

Brine

I notice that the Water District and your consultants always look at brine from recycled water projects as a waste product with complicated disposal. Two sources (PBS Video, May 27, 2014, Salt of the Earth: Salinity in California's Central Valley; California Council on Science and Technology, April 2014, Achieving a Sustainable California Water Future) propose that salt extracted from brine be sold to chemical manufacturers and that agricultural water managers match water of higher levels of salinity to specific crops (such as sugar beets) that can tolerate salinity-laden water.

One can only hope state rules will soon allow recycled water to be added to imported water in the San Luis pipeline. This could be sourced from Gilroy and still benefit Morgan Hill and San Martin.

Thank you for your consideration,
Doug Muirhead, Morgan Hill