



Santa Cruz Water Department - 4 Reuse Scenarios: Potable Reuse, Groundwater Replenishment, Irrigation/Industrial, San Lorenzo River Augmentation (Booth 16) (/initiative/4Wrl/santa-cruz-water-department---4-reuse-scenarios-potable-reuse-groundwater-replenishment-irrigationindustrial-san--lorenzo-river-augmentation-booth-16)

A complete advanced treatment recycled water facility in Santa Cruz could utilize treated effluent using proven treatment processes – microfiltration or forward osmosis, reverse osmosis, and ultraviolet light – to produce highly purified water. This could be a reliable supply from 2 to 4 million gallons a day of purified water at a cost of ~\$700/AF (excluding conveyance costs). A sustainable water reuse strategy could include concepts to irrigate crops and parks, maintain groundwater levels at elevations protective against seawater intrusion, augment San Lorenzo River flows to maintain habitat, augment Loch Lomond Reservoir, and potentially expand future drinking water supplies.

*Submitted by Water Department Staff**

Comments

Michael Lewis 3w, 6d ago

PRO

The City should not consider any other form of active water enhancement until it develops method of recycling existing discarded water.

RONALD L PERRIGO JR 3w, 5d ago

That water currently discharged into the bay by the wwtf should be viewed as a resource, and methods explored to bring it to tertiary status, using it for landscape irrigation or some kind of ground water recharge system to prevent further salt water intrusion, I agree with you Michael.

Jean Brocklebank 3w, 6d ago

PRO

I think this deserves a closer look by the WSAC

Bill Smallman 3w, 5d ago

NEUTRAL

What I find difficult with these proposals that have multiple options is to choose which one you think is the best. You cannot vote how effective the entire batch is. Also, I do not buy into the notion that the "ground water basin is too complex, and you are limited on the amount of water that can be injected, and it is challenging to find areas that won't contaminate wells", First, the private well owners use their wells for irrigation. Second, we are talking about injecting drinking water into the ground. Someday, it will be allowed to inject this water straight into the distribution mains. There are about 15 production wells owned by SqCWD and 3 by the City that are on the coast line. These all can be transformed into injection wells by pulling the pump and carrier pipe, sealing the casing, and fill the casing with pressurized water. The amount of water that can be injected is about 125% of the water amount that was originally extracted, simple calculation, and the Water District keeps records of production totals for each well. People might say why inject water at all and just do Direct Potable Reuse, but, for one, Indirect Potable Reuse can be done now. Second, the ground is cheap, non-evaporative water storage. Three, it helps insure a ground water level 10 feet above sea level, preventing salt water intrusion.

Bill Smallman 3w, 5d ago

NEUTRAL

Another comment I'd like to make here is that it is being made all too confusing that if we inject water, (Let's say we fill existing well casings along the coastline with water under pressure), it will not go straight to the ocean. Another words,

many are saying injecting water is a big waste of time because it will just leak into the ocean, and the "complex" layers underground will take the water straight out to the ocean. This is nonsense. The water is being pulled from the ground, can be injected into the ground in the same area. Freshwater continually seeps into the Ocean at sea level. It has to. The fresh water level has to stay above sea level to prevent intrusion, then it "leaks" and goes down from gravity seeping down to sea level into the Ocean. What naturally fills the groundwater basin? Rain, and there is no difference between rainfall seeping down from the surface vs. Injection wells injecting water into a permeable layer that was used for water production.

Fred Yukic 3w, 2d ago

NEUTRAL

Water recycled for irrigation does not require the level of treatment proposed above. Wastewater should be treated for reuse in subsurface irrigation throughout our community, which requires a lower level of treatment. Playing field at schools, parks, and UCSC could be irrigated in this way, saving highly treated water for drinking. A system of purple pipes could be constructed using local labor and existing right-of-ways to distribute recycled water throughout the community. This would be a long term investment in our community. Recycled water is far more prevalent in California than desalinated water.

Manu Koenig 3w, 3d ago

SUGGESTION

It IS hard to comment on/rate these as a block. Catherine, what do you say we break them out?

Dorah L Shuey 2w, 6d ago

We need to treat our water to higher levels and put it back into our water table instead of into the bay. Once we figure out how to safely reuse recycled water, i am all for doing so. But first we need to make sure that we know how to deal with CECs (constituents of environmental concern) and use that knowledge to protect our health and the environment.

Fred Martinez 2w, 6d ago

QUESTION

Ok for irrigation but who will drink?

Jan Karwin 2w ago

This proposal is worthy of further research and evaluation by the panel of experts.