

**PUBLIC COMMENTOR 204 - ROBERT RAWSON, SEPTEMBER 24, 1996**

032

Good morning. Can you hear me? Okay, my name is Bob Rawson, and I've worked in the wastewater field for 20 years. I hold a grade five operator's license, and have taught the subject for 11 years at Santa Rosa Junior College. I've been involved in Santa Rosa's wastewater issue for a little over ten years. Came about because over Christmas of 1985, while most people were occupied with the holiday season, the City of Santa Rosa tried to sneak by a negative declaration to legitimize increasing discharges of wastewater into the Russian River, and to move their sample location for measuring the flow of the river downstream so as to increase the available dilution factor. Instead of being home with my family, I joined about twelve people from the river area, including some of the members of the Sweetwater Springs board, and we wrote a rebuttal to the negative declaration. After we did this, we thought we were started down the road to zero discharge. And I guess we've gotten to this point now.

Santa Rosa has spent a tremendous amount of money over those ten years, and now produces a very high quality of wastewater effluent at a very great expense. The promise to get out of the river is being reneged on on the basis of cost from what I believe is a flawed EIR/EIS. This EIR is flawed because it failed to investigate the potential of year-round subsurface irrigation and transpiration of wastewater as was described by Dr. Wickham just now. All of the studies pertaining to irrigation suitability of particular soils and relative cost of irrigation versus river disposal should be tossed as irrelevant. You have studied the trees while not seeing the forest. There's a fundamental flaw in the scope of the EIR which must be addressed. We should be growing redwood forests with subsurface transpiration. Redwood is the fastest growing tree in our area and the most productive tree on earth, with a value of a dollar a board foot. In 60 years, an 800-acre plantation of redwood would be worth 8 billion dollars. Such a forest could double as a buffer zone and a park while paying for most of the cost of the City government, such as police and fire services. Why in hell would you want to continue to throw 130 million dollars a year into the Russian River and simultaneously incur the wrath of the lower Russian River residents and their lawsuits? Dr. Wickham has presented the documentation on economics, and he's probably handed you a copy of that which you can read. Aside from this, we need to understand that producing tertiary water for the purpose of throwing it away is wasteful and unsustainable into the future. To understand the biology of this, I would like the EIR to consider these facts, which unlike your documents, are stated simply. Large diameter sewer systems such as we find in Santa Rosa go back to roman times, and what engineers refer to as modern wastewater treatment technology such as activated sludge is over 100 years old. Typically, we flush the toilet and gravity sewers carry a minute amount of sewage material away and a large volume of water. About 30 percent of the sewage is settleable and the remainder is either dissolved or in very small colloidal particles. Gravity sewer systems are leaky. As sewers travel to the treatment plant, infiltration by ground and rain water occurs in winter, increasing the volume of wastewater arriving at the treatment plant. Those same leaks that allow winter infiltration will also allow the leakage of sewage out of the system in summer, contaminating the soil around the standard sewer lines. Until sealed,

033

pressurized sewer systems become more widely utilized, wet weather infiltration into large diameter gravity systems will continue to cause serious problems for wastewater disposal and exfiltration will continue to contaminate soil and ground water. When the sewage arrives at the treatment plant, its velocity is slowed down to from two feet to one foot per second to allow the grit and sands to settle, and next the settled organic sludge is removed as primary sludge. Water treated at this point is called primarily treated wastewater. This still contains 70 percent of the sewage materials as dissolved and colloidal compounds. The next conventional step is secondary treatment, which is designed to convert the dissolved materials into bacterial sludges which can be settled into secondary clarifiers. Secondary treatment is expensive because it uses large amounts of electricity and aeration for pumping. Conversion of valuable dissolved nutrients into useless bacteria cells adds to the primary sludge already collected and almost doubles the total sludge volume produced by the treatment plant.

**Mayor Wright:**

Mr. Rawson, your five minutes are up. could you conclude, please?

**ROBERT RAWSON:**

Yes I will.

These bacteria cells are sludge that you have to pay money to dispose of. And you don't measure on the value by the board foot. You pay for it. Redwood's worth a dollar aboard foot. Sludge costs you probably that. Thank you.]

**Mayor Wright:**

Thank you, Mr. Rawson. Richard Charter, followed by Dick Shannon, followed by Joe Tresch.