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Re: Three pages of Comments and Suggestions on the Draft EIR/EIS of the Santa Rosa Subregional Long-term Wastewater Project to be considered and included in the Final EIR.

The following submissions are mostly on subjects which receive little or no treatment in the EIR/EIS. Additionally, I have attempted to speak to issues which may not have received a lot of attention from others, hopefully helping to avoid needless repetition. Clearly, there are many other areas where inadequate data or review should be noted and corrected. Despite the time expended, dollars consumed and pages generated, an appropriate, safe, environmentally sound project has not been presented. 001

*PRESENTATION OF MATERIAL* 002

The length of the Draft EIR/EIS makes it virtually impossible for anyone to review the whole document. Additionally, the printed version has NO index, although an outline heads each section. There is no way to track a subject, like aquafer injection or sludge, and find all references to that area. Furthermore, although there are lists of references offered at the end of the sections, these are NOT footnoted to the statements they presumably support in the text. Thus, it is impossible to verify facts. Many of the tables have labels that don't seem related to each other or to the figures contained therein (just two examples, Tables 1-14 and 15); tables often have confusing explanations in the text.

*GROWTH* 003

On page 1-3 of the Summary it is stated that "The Project is intended to provide reliable disposal of existing reclaimed water flows and the increased volume expected at buildout of the General Plans (in effect at the outset of this analysis in April, 1994) of the communities making up the Subregional System approximately through the year 2010." Within the document, is the public adequately informed about the growth that this capacity will allow ? Does this "build-out" include all the recent (post-1994) annexations or other changes in city boundaries ? Does it include County building projections, assuming that the City and County sanitation services join forces ? How capacity will be defined and controlled should be included in the EIR.

As the EIR/EIS states on page 1-58 of the Summary, "growth inducement may result from the provision of new infrastructure which removes obstacles to growth." Clear enough. Without getting into a "cause and effect" debate, it is absolutely obvious that major growth will not take place without the provision of sewer. Unlimited sewer capacity, virtually uncontrollable growth. The sewer system's power to enable growth is one of its most serious, permanent and difficult to mitigate environmental impacts. The subject has only been given passing treatment in the Draft EIR/EIS and deserves detailed coverage in the EIR. 004

Very importantly, I do not believe that the EIR/EIS fully informs the public about the tremendous growth potential specifically attributable to the actual disposal methods recommended for use. The combination of a possible 20% to the River in the winter (according to a wastewater Roundtable presentation, we could never produce this much !) and the expandable irrigation technique in the summer, is likely to provide the necessary infrastructure for ***almost unlimited growth***. Since the citizens of Sonoma County have made it abundantly clear that growth is their primary concern, they deserve to be informed that the Project holds this potential. They may be getting a MASSIVE wastewater system instead of a responsibly LONG-TERM one !The environmental impacts of such a large system have not been disclosed. 005

*GOVERNANCE* 006

Our service-oriented government officials need to administer both water and wastewater programs. Particularly in these depressed times, the temptation to make bucks versus valuing resources can be great. If money is made by selling more and more water and then again made by charging for the

treatment of that water as wastewater, those on the receiving end could well be disinclined to push for meaningful conservation. We need to cherish our ever-decreasing water table, diminish our production of wastewater and resist the pressure to build another dam and sell yet more water. Our elected officials need to advocate for wise choices, based on sound reasoning and balance. 006(cont.)

*CONSERVATION* 007

The Project seems to emphasize treating and disposing of more and more wastewater rather than diminishing the amount of wastewater produced. Although low-flush toilets and low-flow showers receive some attention, conservation aspects need to be expanded. Low-flow, low-flush appliances can save only relatively minor amounts of water. A snug-tight, collection pipeline system needs to take priority and needs fuller treatment in the EIR. Infiltration can more than triple the winter wastestream, obviously impacting both processing and then the disposal environment. (Page 1-23 states that the Headworks pumps will be able to handle 80 million gallons a day). Without consideration of a sound piping network, the EIR cannot achieve its goal of maximizing conservation (Page 1-4). 008

If and only if human wastes are prevented from entering the wastestream can conservation be truly maximized. As long as bulky solids need to be moved through the pipes, a lot of water will be needed. Serious consideration of creating a so-called graywater wastestream, devoid of human fecal matter, has not received adequate investigation in the EIR/EIS. The final EIR should study in detail the various alternative toileting systems which handle solids at the source. 009

*PROJECT ALTERNATIVES* 010

The way the alternatives are presented, it is not clear to the reader that two disposal methods are needed - one summer, one winter. This confusion is demonstrated by the chosen alternatives of the nine Santa Rosa City Council candidates (See Press Democrat, Sunday, October 6, 1996, Page A8); the final EIR needs to explain specifically what each offered alternative involves. The Santa Rosa City Council will make the final decision and should be fully informed.

*AQUIFER INJECTION* 011

The pumping of treated wastewater into the underground needs to be completely evaluated in the final EIR if that technique will be used anywhere in the County. However the process is described, including aquifer injection, recharge or storage, the use of our mutually owned underground as a receptacle for wastewater demands rigorous investigation. With good reasons, aquifer injection was removed from consideration in the EIR/EIS, but now appears to be suggested for use at a number of locations, some private, some public. Any use of this process for wastewater handling requires full disclosure and scientific evaluation in the final EIR.

*SLUDGE* 012

The toxic, final product of solids treatment, sludge, receives virtually no discussion in the EIR/EIS. So far as I know, we currently spread this dangerous material on hay fields; the consequences for the animals who eat the hay and later for ourselves as consumers of the milk or meat are only briefly covered (footnoting absent). Long-term accumulations of sludge materials in the soil and sludge components in run-off should be investigated.

At least one treatment method exists that more thoroughly destroys the sludge materials during treatment - the deep pit digester in operation at St. Helena. The final EIR should fully review the possibilities of this technique for our use and search out any other methods that are applicable. 013

*IRRIGATION* 014

Plants are used in wastewater treatment because they take contaminants up into their structures. How wise then is it for us to eat these plants ? Wastewater should be irrigated to non-edible plants only; even vineyard or orchard crops with woody stems need further study. We need to know exactly what accumulates in leaf or fruit. The final EIR should require and report extensive analysis of all crop materials receiving wastewater, whether for stock or human consumption. Furthermore, the accumulative effects on soils should be evaluated. 015 016

I do not feel it is safe to water edible crops with wastewater. Although we have only begun to discover the new, risky pathogens, there is enough evidence of ***what we don't know*** to be extremely frightening. Cyclospora on strawberries - very difficult to detect, uncomfortable disease process, likely not fatal. "Mad Cow Disease" - fatal to animals and humans. E. coli 0157- epidemic recently in Japan, incurable, sometimes fatal, can be passed from human to human ! Salmonella on the *inside* of chicken eggs ! 017

Evidence is mounting that all the animals carrying these new pathogens have been fed some part of their own specie's bodies or fecal solids. Even though we have treated our wastewater to tertiary, does that assure us that the water is pathogen-free ? How can we be sure ? We may not detect "new" pathogens. Are we not applying some part of our fecal remains to the very foods that we then ingest ?

The final EIR should include much more disclosure about the "new" pathogens, discuss detection problems and disallow wastewater use on edible crops.

*PURIFICATION* 018

Any long-term Project should have as a goal the perfect purification of the wastestream without the hazards of organochlorines or similar dangerous outcomes. The final EIR should contain suggestions for seeking levels beyond tertiary based on continuing study of the water's contents after tertiary treatment and after it is stored for various periods of time. Investigation of worldwide, innovative treatment methods, including pathogen detection and removal, should be included.

*VALLEY OAKS* 019

Although the County plans to author an ordinance protecting Valley Oaks county-wide, the final EIR should specify the exact nature of the restrictions it deems necessary for the trees in areas where wastewater is applied. Research has shown that these trees can tolerate excess water in the winter, but suffer greatly and eventually die of root-crown disease if they receive summer water under their drip lines (canopy). The fatal watering of these trees is certainly an important environmental impact and should be intentionally avoided by clear directions in the final EIR about the acceptable placement of wastewater.

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