

Technical Memorandum Name: Effluent Reuse and Disposal, April 2008
Commenter: Tom Ruehr
Comments Date: May 12, 2008
Responses Date: June 20, 2008

The following comments were submitted in response to the above listed Technical Memorandum (TM). The TM was developed as part of the EIR process for the project, in order to help facilitate and broaden the discussion of project issues important to the community. The responses should be considered preliminary because the EIR process is not complete, and the information necessary to fully respond has not yet been developed. The project team is grateful to those citizens who took the time to review the TM and provide comments at this early stage in the process. The project team will endeavor to fully address the comments and concerns through the on-going project development process.

	Comment	Response
1	<p>The critical issue is treated waste water reuse or disposal. First, testing at the Broderson site resulted in a water "infiltration" rate of 180 gallons per day per square foot "through the wetted surface of the trench" during prototype testing. This must have included sidewalls! Second, the Fugro West 2004 study recommended using a maximum application rate value of 30 gallons of treated waste water per day per square foot. Whereas, the previous sewer project in 2001 determined an recommended rate of 7 gallons of treated waste water per day per square foot. Third, the Broderson site percolation rate data in 2003 indicate all sites had percolation rates greater than one minute to percolate one inch of treated waste water. Table 2 and Figure 1 of the March 2007 draft law AB 885 says under these conditions, a maximum application rate is 1.2 gallons of treated waste water per day per square foot. What is the correct value? 180, or 30, or 7 or 1.2?</p>	<p>These values are not directly related.</p> <p>180 gpd/ft² is the actual infiltration capacity of the soil at the Broderson site as determined by prototype testing.</p> <p>30 gpd/ft² is 1/6 of the tested infiltration capacity. It is the design application rate for the percolation trenches. This is a conservative design, with a safety factor of 6.</p> <p>7 gpd/ft² is the actual application rate to the overall effective area of the Broderson site based on the application of 800,000 gpd.</p> <p>1.2 gpd/ft² is the maximum rate for septic tank leach field disposal. It does not apply to the disposal of municipal wastewater that has been treated to meet all water quality standards in the Waste Discharge Requirements.</p>
2	<p>As a soil scientist, I know a sustained water application rate of the lowest rate of 1.2 gallons of waste water per day per square foot can not be sustained on the Los Osos dune sands. These sands are permeated with thousands of horizontal pencil thin clay lamellae. These lamellae cause water to move faster horizontally than vertically.</p> <p>Bottom line is the Broderson site is dead in the water for high rate waste water application as is every other possible site any where on the Los Osos dune sheet. This is an absolute fatal flaw in the proposed sewer. I made this</p>	<p>This assertion is unfounded. Extensive scientific study and prototype testing by experts in the fields of geology, hydrogeology, engineering, and environmental science from many different agencies and consulting firms over the last 20 years has consistently supported the conclusion that the site has the capacity for high rate infiltration.</p>

	known in 1992 and the County has tried to cover this up since then.	
3	One: The citizens of Los Osos deserve a thorough explanation of why various engineering firms have chosen these values and why no agreement has been reached after millions of dollars of studies. Comparable values in units of gallons of waste water per day per square foot should be used in all calculations, rather than hiding data by using other units of measurement.	See # 2 above.
4	Two: We must have an independent reassessment by an outside unbiased recognized authority to determine the one waste water application rate to use.	See # 2 above.
5	Three: This result must be dealt with appropriately in the Environmental Impact Report.	The CEQA analysis will, once again, review the potential impacts of effluent disposal at the Broderon site.
6	Four: The final proposed sewer project must have an effective and environmentally sound and unified collection, treatment and waste water application system. It must not be segmented with the idea of solving the waste water application system in the future	Comment noted. Adequate capacity for disposal and reuse of the treated wastewater effluent a key element of the project. Potential options are presented in the Fine Screening Report and this technical memo.
7	This fatal flaw will cause EACH residence of Los Osos to have to pay over 1 million dollars to fix this problem created by the inability of these studies to provide a single unified value.	The assertion that the project will cost over \$1 million per residence has no basis. Project reports estimate monthly costs in the range of \$150 to \$250 per month.