

Technical Memorandum Name: Effluent Reuse and Disposal, April 2008
Commenter: Lawson Schaller
Comments Date: June 3, 2008
Responses Date: July 2, 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>To: SLO County Board of Supervisors, Staff, and LOWWP project team From: Lawson Schaller Re: LOWWP, Effluent Reuse and Disposal, Broderson leach field site</p>	
2	<p>I am a homeowner who lives directly below the proposed Broderson leach field site, between Broderson and Doris.</p> <p>The Technical Memorandum (TM) - Effluent Reuse and Disposal Alternatives, April 2008 included a leach field site at Broderson. The science and engineering supporting this site remains to be very controversial. The application rate in section 3.2 of the TM shows a maximum application rate of 30 gallons per day per square foot. I have attached EPA guidelines and CA AB885 application rates. Both of these documents show maximum application rates of 1.2 gallons per day per square foot. I am very concerned as to how the engineers were able to originally calculate a maximum rate that is 30 times the EPA and AB 885 rates.</p> <p>Furthermore, the EPA and AB 885 documents show that percolation rates less than 1MPI (minute per inch) are prohibited. Another attached document shows a Montgomery Watson Harza (MWH)/Fugro geotechnical report for the LOWWP. In this report it shows percolation rates (last column) of minutes/inch. You can see that all but one were less than 1 MPI. This is also very concerning.</p> <p>In reading the TM document in reference to the Broderson site I am stunned as to why there was no reference or mention of either Federal EPA guidelines or AB 885 application/percolation rates.</p>	<p>Disposal of treated wastewater from the project at the Broderson site has been in the project description since the 1980's. Over the last 20 years, the site has been extensively studied and tested by many independent agencies and consulting firms with expertise in geology, hydrogeology, engineering, and environmental science. The independent analysis has consistently supported the conclusion that Broderson has the capacity for high rate infiltration.</p> <p>Application rates were developed according to EPA guidelines for rapid infiltration systems for treated municipal wastewater. EPA guidelines and AB 885 draft regulations for disposal of untreated septic tank effluent are not applicable to percolation of treated wastewater at Broderson.</p>
3	<p>We must have independent, professional, objective sound scientific review of this issue. I request that this be done in the EIR and then followed with independent peer review.</p> <p>We must also have a thorough complete analysis of costs to construct the leach field, including piping,</p>	<p>See above. In addition to the last 20 years of study and testing, the current project efforts include the input or review of the following parties: Carollo Engineering, Cleath and Associates, County Public Works Department,</p>

	energy to pump up hill, additional costs for higher treatment (removing nitrates), continued multiple rebuilding of the leach fields etc.	Technical Advisory Committee, Michael Brandman Associates, Kennedy-Jenks Consultants, Hopkins Groundwater, NWRI Peer Review Panel.
4	Over time the application rate has been reduced. Originally the application was ~ 800,000 gallons per day (30x EPA). Then the application was cut in half to ~400,000 gpd. More recently the Los Osos Technical Advisory committee and the county have appeared to take a more cautious approach... one of start slow and ramp up, or trial and error. The error part is what concerns me. Such a rapid retreat from the original estimates and calculations is of concern. Retreating from 800,000 gpd to 400,000 gpd to a current strategy of slow trial and error raises red flags.	The previous LOCSO project planned for disposal of an average of 800,000 gpd at Broderson. Project reports indicated that this disposal rate raised the potential for groundwater to surface near the bay after several years. Groundwater monitoring was required and harvest wells could have been implemented to alleviate the high groundwater near the bay. The current project approach is to avoid the requirement for harvest wells and begin with 400,000 gpd of disposal at Broderson. With groundwater monitoring, there is the potential to increase the disposal rate over time.
5	The cost/affordability impact is important. Will it be cost effective to build this leach field only to be able to apply the EPA/AB 885 recommended rate of approximately 1 gallon per day. We need bracketed costs per gallon. Recharge and balancing the basin is critical, but it must be safe and cost effective. Please give close consideration to other options like Ag reuse, which avoids the need of higher treatment costs and stripping of beneficial nutrients (nitrates).	The Broderson site has the percolation capacity for 400,000 to 800,000 gpd and has received Federal and State permit approval for these disposal rates. Broderson is one of the most cost effective means of providing disposal capacity, mitigating sea water intrusion in the lower aquifer and recharging the upper aquifer. Disposal at Broderson does not eliminate other effluent reuse options. Combined disposal and reuse configurations that utilize agricultural reuse and percolation at Broderson are presented in Section 5.2 of this tech memo.
6	In addition to the costs of Broderson we have un-quantifiable risks associated with liquefaction, day lighting, and excessive runoff to the bay having ecological impacts. Potential legal liability is significant. Liquefaction could be catastrophic. Moisture in foundations resulting in mold in homes is a significant health and safety consideration. Impact on the Morro Bay waters could have long lasting ecological impacts associated with fines etc. It seems within reason that the runoff from an overloaded concentrated Broderson leach field could flush nitrates and other contaminants from upper aquifers into the bay.	The potential risks of disposal at the Broderson site have been quantified in project reports. There is a low potential for liquefaction at the Broderson site since the soil beneath the site is dense and not susceptible to liquefaction in the zone that will be saturated with groundwater. The assertions that there will be moisture in foundations and increases in contaminants are unfounded. There is currently over 150 feet to groundwater at the Broderson site, and the disposal of treated wastewater will not increase contaminant levels compared to the current practice of disposal of untreated wastewater from the same domestic sources.
7	In summary the science and engineering behind the application rates of the Broderson leach field sites	As stated above, the Broderson site has received a high level of scientific

	<p>must have independent, professional, sound and objective scientific review. It seems appropriate to have this done in the EIR. The TM appears to simply restate the studies and analysis of others. We need thorough critical review. Too much is at stake not to.</p>	<p>review for over 20 years. The current County efforts will continue that review in the EIR with a new team of environmental scientists, engineers, and hydrogeologists.</p>
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