Technical Memorandum Name: **Decentralized Treatment, January 2008**
Commenter: **Lawson Schaller**
Comments Date: **February 6, 2008**
Responses Date: **September 22, 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	My hope is to help the process and more specifically to suggest ways to make future Technical Memos(TM) more objective and less susceptible to unnecessary criticism. Objective, *peer reviewed* reports and TM's allows our citizens and the Board to make a better and more informed vote. When a non-traditional technology is covered in a TM in a way that is incomplete and biased or perceived as biased then I believe that creates opportunity for those skeptical of Carollo to become even more critical and skeptical of the process. This causes unnecessary friction in the process, erodes trust and slows momentum. TM's of this nature do not bolster confidence in Carollo. I do have confidence in Paavo and his team. I am hopeful that they will continue to make steady strides forward and continue to be open to newer technologies as well as public criticism and support. They do not have an easy task. I am appreciative of the county's efforts to help resolve this challenging waste water issue. As mentioned, I read the TM on Decentralized Treatment(DT) and my first reaction was that it was incomplete, perhaps biased or skewed. The TM did not seem to reflect the situation in Los Osos, it seemed to take a very narrow view of the application of DT. Because of this the TM gives the impression that DT may be costly and also have a high level of on lot disturbance. See below. So, I phoned Lombardo and Associates Inc.(LAI) to get some clarification and more information. LAI informed me that they had not been contacted by Carollo nor the county for specific input or feedback on this TM. This surprised and disappointed me. If Carollo had phoned Lombardo and Associates, or other industry experts and included their comments, input etc. then it is quite likely that I would not be	Comment noted. The draft Decentralized TM presented the overall concepts and issues associated with decentralized wastewater collection and treatment in Los Osos and addressed the conceptual descriptions submitted by Pio Lombardo in a letter dated June 8, 2007. Due to the uncertainty of the conceptual description, and public comments submitted in response to the draft TM, Pio Lombardo of Lombardo Associates, Inc (LAI) was retained to further develop a conceptual decentralized plan for the development of a Final TM. The LAI conceptual plan for decentralized treatment includes 7 separate collection zones and treatment plant sites. Detailed cost estimates for this decentralized plan are presented in the Final Decentralized Treatment Tech Memo and appendices.

	occupying your time now and also would not be running the risk of a homeowner/non-professional trying to clarify TM's. The following comments are not direct quotes but a summary of my interpretation of LAI comments and answers to my questions.	
2	The TM states that decentralized technology may necessitate having 30 treatment sites around town. A first time reader may have a very skewed vision of a small town with 30 treatment sites. LAI explained that it could be as few as 2 or 3 treatment sites, perhaps 6, perhaps more. Community desire would help make that choice. If this broader perspective of the number of potential sites was included in the TM, I believe it would give people a more complete view of the options that exist with DT.	Based on the capacity of the decentralized treatment processes considered, approximately 30 sites were estimated to be required if they were to be located on individual vacant lots in the community. The LAI conceptual plan for decentralized treatment includes 7 separate collection zones and treatment plants on sites ranging from one to several acres. Detailed cost estimates for this decentralized plan are presented in the Final Decentralized Treatment Tech Memo and appendices.
3	The TM discusses the high cost of processing water samples and the need of roaming technicians to get samples at each site daily. Again this could mislead people to think that 30 sites require a lot of maintenance costs when much fewer sites may suffice. LAI suggested the bid costs to collect and process water samples may be high and needed a closer look.	See above. The LAI conceptual plan for decentralized treatment includes 7 separate collection zones and treatment plant sites. Detailed cost estimates for this decentralized plan are presented in the Final Decentralized Treatment Tech Memo and appendices.
4	The TM suggests that permits from the RWQCB may be difficult to obtain for DT. LAI informed me that they are not asking for any special variance from the RWQCB to permit a DT process. Other public comments at the TAC meeting on 2/4/08 suggested the same permits previously issued for the mid-town site (tri-w) would be similar or the same to those needed for DT.	A Waste Discharge Permit from the Regional Board is expected to be more of a challenge under a decentralized scenario, compared to centralized treatment and disposal, because of the multiple treatment processes to monitor and the proposed discharged at sites that have not been extensively studied under previous project reports.
5	The TM states that anaerobic processes (as with DT) produce 23 times the greenhouse gases, referring to methane gas, than do aerobic processes. LAI informed me that to their knowledge no conclusive reports or studies were available that showed complete life cycle apple to apples comparisons of the two processes. The incomplete statement of 23 times the greenhouse gas production could easily be misleading and put DT in a negative environmental light.	Methane, which is a byproduct of septic tanks, has 21 times the greenhouse gas impact when compared to carbon dioxide. The Draft Greenhouse Gas Emissions Inventory TM (June, 2008) documents the greenhouse gas emissions of septic tanks associated with a STEP/STEG collection system as proposed in the decentralized treatment plan.
6	The TM suggests that disposal and reuse options of the treated effluent would be distributed through drip lines at homes and showed a huge cost range for this, not to mention perceived homeowner lot disruption. LAI suggested that the disposal process had options in addition to the individual home drip systems. In my view we could run limited purple pipe to parks, golf course, schools, some water to Broderson recharge site and perhaps a wetland area, or agriculture. Again, it would be easy for a homeowner to have a perception of high costs and great lot disturbance which is not necessarily the case. LAI also challenged the TM	The LAI conceptual plan for decentralized treatment includes options for either residential reuse of recycled wastewater at individual homes or disposal through subsurface drainfields. The residential reuse option is expected to have significant costs and property impacts. Cost estimates and details of residential reuse options for this decentralized plan are presented in the Final Decentralized Treatment Tech Memo and appendices.

	reporting that drip may not be used during storm season.	
7	In summary, future TM's that include specific industry experts views and opinions, outside of Carollo, will likely receive much less criticism and skepticism..create less friction. In my view future TM's should simply include a comment section for out of house experts, a peer review. Carollo would be free to challenge any and all comments. To leave out or exclude critical expert opinions and peer reviews does not serve the process. In fact I believe it is a disservice. Also, I am not married to this technology or any other. I fully realize DT may or may not be the best option. I simply want clear objective information and data to learn from and form some opinion. More importantly I want good reports and data for the five Supervisors to base a critical vote on. As you know the citizens of Los Osos have made a huge financial commitment to the LOWWP. I feel we deserve utmost objectivity in reports, including peer reviews. Finally we deserve an objective well informed vote from our Board of Supervisors.	The tech memos have been independently authored by industry experts at Carollo Engineers based on appropriate research and references. In the case of the Decentralized TM, LAI was retained to further develop a conceptual decentralized plan to address questions and issues raised in the draft TM. The conceptual plan and an analysis of the costs and impacts are presented in the Final Decentralized Treatment Tech Memo and appendices.