Technical Memorandum Name: **Low Pressure Collection System, January 2008**
Commenter: **Anne Norment**
Comments Date: **February 09, 2008**
Responses Date: **Revised July 29, 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	High energy use of grinder pumps (2 horse power motor), which would be in violation of AB32 requirements to minimize carbon footprint.	The estimated energy use for the grinder pumps is one aspect of the overall energy requirements of the project. The overall impacts of the various project alternatives will be evaluated in the EIR. It is important to support the goals of AB32 with any project proposed in Los Osos, but AB32 should not be used to prohibit a solution to the current water quality issue. The EIR effort will not only identify the AB32 impact of various alternatives, but also put those impacts in the proper context with other environmental effects, as well as identify measures that could be used to mitigate AB32 effects.
2	Failure of grinder pumps during power outages. This would represent a significant nuisance to homeowners if a low capacity reservoir is present, as they would need to minimize water use. The LPCS TM fails to discuss what might happen during a power outage should water use not be minimized (does sewage back up into the home or might a sewage spill result?). This type of information should be detailed in the TM and EIR.	Pump failure due to power outages are discussed in Section 1.3 of the TM. Additional analysis of potential impacts during a power outage will part of the EIR.
3	As for impact issues, the LPCS TM lacks and EIR should include a detailed comparison of impacts of having a grinder pump vs a STEP/STEG tank on a given lot including electrical hook up costs, control panel costs, frequency of expected failures leading to alarms, pump noise level, frequency that pump noise is present, issues with tree roots (need to remove existing trees), grease clogging, and odors. The TM focuses on size of the grinder pump vs STEP/STEG tanks and does not adequately address these additional issues which will have ongoing impact on water, health and safety, air quality, noise and	For a low pressure collection system, the electrical connection and control panel costs are expected to be similar to a STEP system, both systems would likely require an additional breaker or separate sub-panel, a control panel, and wiring from the breaker box to the underground pump. The on-lot footprint of a low pressure system will be smaller, but would have less storage. The total pumping times would be the same because it is related to total wastewater produce, not tank storage.

	other quality of life issues. Fig 3 of the TM should include electrical connection as well as emptying septic tanks as part of homeowner responsibility.	Costs for the electrical system and controls and costs for abandoning existing septic tanks are included in Table 4 through Table 6 and Table 8.
4	The LPCS TM fails to discuss the likelihood of sewage spills into Morro Bay and the State Marine Preserve with installation of this technology. Communities with LPCS cited in the TM generally do not appear to be coastal. The TM should include specific information about success or failure of LPCS in coastal communities with environmentally sensitive habitat like Los Osos. In addition, should a spill result due to failure of a grinder pump at an individual homeowner's property, who pays for the resulting fines and who is responsible for cleanup? These issues are central to environmental justice, health and safety, marine life protection, as well as requirements by the State of California for a Sanitary Sewer System Management Program. The TM and EIR should address these issues in detail.	Although it is important to consider the risks of potential futures spills, those risks should not prohibit a solution to the current water quality issue. Each type of collection systems has elements that contain more or less risks than other elements, and while it may be technically possible to design a virtually leak proof system, the costs would likely be prohibitive. The costs and benefits of constructing a system to minimize all risks should be compared with an inspection and maintenance program that identifies and corrects problems that may occur. The EIR will identify potential impacts and measures to mitigate them. In addition, permit conditions may include specific requirements to be included in the system management program.
5	In the TM, it is suggested that LPCS offers the ability to perform directional boring, and thus would be an advantage over a conventional gravity system. However, all of the communities listed installed their collection systems by open trenching. Open trench development of the LPCS collection system would add significant cost, disruption to traffic, noise, and potential for disruption of Chumash artifacts. The TM should discuss and EIR should include specific information about conditions under which communities have chosen to install LPCS collection systems by open trenching and directional boring and costs should be estimated for both situations. There should be specific discussion of whether directional boring for LPCS is a viable option in Los Osos.	Cost estimates for directional drilling pipelines for either STEP or low pressure collection systems are based on input from local contractors and analysis of other costs, including road restoration. Ultimately, the contractors submitting design-build proposals will identify the least costly method of constructing the collection system.