Technical Memorandum Name: **Low Pressure Collection System, January 2008**
Commenter: **TAC – Engineering Working Group**
Comments Date: **January 31, 2008**
Responses Date: **March 31, 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	A noteworthy conclusion of the preliminary analysis of the low pressure collection system (LPCS) is that three pump stations would be required to facilitate conveyance of wastewater to an out-of-town wastewater treatment plant.	Comment noted.
2	A short-coming of the LPCS is its low reserve storage capacity during a power outage.	Comment noted.
3	The State Water Resource Control Board (SWRCB) electrical standards for wastewater pumps should be reviewed and incorporated into the LPCS analysis. Local contractor experience suggests that the SWRCB has a more stringent standard than presented in the Technical Memorandum (TM).	The County must seek State Water Board approval if the project uses a State Revolving Fund loan. It is expected that electrical standards will be similar to those for STEP systems and consistent with common industry practice.
4	The TM should provide a more detailed explanation of grinder pump responsibility. Figure 2 indicates the grinder pump installation will be a home owner responsibility if the pump is located in the backyard and a Project responsibility if located in the front yard.	The homeowner vs. project cost examples in Figure 2 are consistent with what was presented in the Fine Screening Report for the limited use of grinder pumps with a gravity system. If grinder pumps are used more extensively, the responsibility for costs will have to be reevaluated.
5	The TM should provide more detail about how septic tanks will be decommissioned. The decommissioning costs are estimated at $300 in Table 4 and 5. Does this cost include septage removal and disposal? Currently, the costs for septic tank pumping alone are higher than $300 quoted in the TM for septic tank decommissioning.	The cost estimates are based on estimates from local contractors and are for pumping and abandoning the septic tank in place. It is reasonable to assume that there will be some costs savings when abandoning several thousand septic tanks in a short time, however contingency costs have been added to the overall estimates to allow for uncertainties.
6	The TM does not address the infiltration and inflow (I/I) differences between LPCS and gravity collection systems.	Infiltration and inflow rates are estimated for each type of collection system in the Flow and Loads TM.
7	In section 3.1 of the TM, the potential crossing of Los Osos Creek is mentioned as an issue. From the information provided during the development of the Pro/Con analysis, this was not considered a fatal flaw. Consequently, it should be removed from the TM.	Potential creek crossings are discussed in Section 6.4.9 of the Fine Screening Report and in the Out-of-Town Conveyance TM. Creek crossing will require additional permitting and regulatory review, but it is not a fatal flaw.

8	The TM specifically states that the most common construction technique for LPCS installation is through open trench excavation. However, the cost estimates presented are all based on directional drilling.	Costs are estimated for directional drilling pipelines for low pressure collection systems to provide a comparison the STEP estimates. Ultimately, the contractors submitting design-build proposals will identify the least costly method of constructing the collection system.
9	In the last paragraph in section 4.1 of the TM, LPCS is characterized as having minimal access points. Wouldn't each lateral require an access point? If so, how does this compare with the other collection systems?	A low pressure collection system would be similar to a STEP system, where there are facilities for pumping and clean outs at each home, but no manholes on the collector lines. Low pressure and STEP systems would require air relief valves at regular intervals.
10	The Department of Public Health requires sewer mains to separated horizontally from drinking water mains by at least 10 feet. In addition, all sewer mains, when crossing a drinking water main, are required to be at least 1 foot below the water mains and cross perpendicularly.	Comment noted.