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### **Interoffice Memorandum**

To: Phillip Gasteyer, Mayor, Village of Corrales  
From: Scott A. McKitrick, P.G.  
Date: 7 September, 2007  
Re: Scope of services, Village of Corrales well monitoring program

This memo is submitted by Souder, Miller & Associates (SMA) in response to our discussion today and a review of the existing scope of work for the Village of Corrales well monitoring program. SMA has suggestions on the proposed analyte list for the next year of well monitoring.

SMA recommends that the analyte list for well samples include the following contaminants:

- Nitrate (as N)
- Total Kjeldhal Nitrogen (TKN)
- Bac-T (Total Coliform and Escherichia coli by SM 9223 B)

These contaminants would be expected to be present in groundwater impacted by wastewater disposal to on-site leachfields. TKN measures all reduced-species nitrogen (nitrogen present as urea or ammonia). TKN is not regulated. However, it oxidizes to nitrate, which is a regulated contaminant. It is common for groundwater beneath leachfields to be anoxic, so it is important to measure TKN to determine the total amount of nitrogen in groundwater. SMA does not recommend testing for nitrite, as nitrite commonly converts to nitrate in groundwater.

Additionally, SMA does not recommend testing for caffeine. While this is a novel method to determine if on-site wastewater leachfield discharges are impacting groundwater, SMA does not believe it to be cost-effective. Analysis as described above is adequate to determine if groundwater is impacted by wastewater.

The metals iron and manganese are soluble under reducing (anoxic) conditions, and are commonly present in groundwater impacted by wastewater from on-site leachfields. Your existing data indicates that iron and manganese are elevated. Ongoing analysis will likely confirm this finding, but will not add to the general understanding of groundwater impacts. Accordingly, SMA does not recommend continued metals analysis.

If you have questions on these recommendations, please feel free to call me at the number above, on my cell at 505.220.6542, or to e-mail me at [sam@soudermiller.com](mailto:sam@soudermiller.com).