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February 15, 2010

Tom Mayer  
City of Maple Hill  
PO Box 215  
Maple Hill, KS 66507

Dear Tom,

As you requested, I met with you on February 11 to discuss possibly adding a school and more homes to the city's wastewater collection system.

We reviewed your system's permit; it contains information regarding the design of the lagoon. These include the design for P.E. of 600. "P.E." is the acronym "population equivalent" or one person. Some businesses have higher waste strength than homes, so the population equivalent is higher than actual number of persons. Those of "higher strength" include restaurants, locker plants and most industries.

The flow design is 60,000 gallons per day (gpd) or 100 gallons per P.E. per day. We calculated the flow at the main lift station for each pump. The west pump operates at 125 gallons per minute with a running time of 3.5 hours per day. The east pump operates at 53 gallons per minute for 7 hours per day. Based on that information, the system was pumping approximately 48,500 gallons on February 10, 2010. The flow does not include any possible inflow and infiltration. Your system has possible of additional flow capacity of only 11,490 gallons per day. This is extremely close to capacity in my opinion.

I recommend that you use your daily hour readings over the past year to figure usage to include flow during rain/snow melt events to determine if your system is at or over capacity with inflow and infiltration. Due to being so close to capacity I recommend that your city hire an engineer to determine if the system can handle the extra flow from a school and additional homes. Having the engineering review will provide necessary information for long range planning of possibly needing to expand the sewer treatment facility to take on the school, more homes and businesses. I also suggest that the city select an engineer other than that provided to the school; the city needs to have objective opinions.

Please call if you have any questions. KRWA appreciates the opportunity to provide assistance to your system and look forward to your support as members.

Sincerely,

Charlie Schwindamann  
Wastewater Tech

CS:ejr  
c: Art Adams III, Mayor  
Helen Holm, KDHE, Lawrence