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February 27, 2010

Mayor Ben Leatherman and Council
City of Denton
606 Arbor Dr.
Denton, Kansas 66017

Dear Ben,

Rita Clary, Lonnie Boller and I appreciate the opportunity to meet with you to evaluate both your water and sewer systems and make recommendations on needed improvements. The district will be receiving a letter from Lonnie regarding water system improvements. This letter will review what we perceive as needed improvements to your wastewater system.

Possible improvements include the following:

- **Converting both existing lift stations to submersible-type systems.** Both lift stations have served the city for many years and have long outlived their expected service life. I suggest working with your engineer to explore the idea of possibly using the existing wet wells equipped with new submersible pumps. The existing pumps require a lot of maintenance and are not real reliable. New, submersible pumps would improve reliability, allow easier maintenance and eliminate some safety concerns. The city should also review what is needed to allow both existing generators to start automatically should you lose power. Due to a lightening hit, the north lift station does not have a working transfer switch. You also mentioned that both generators need to be maintained and may also need new battery chargers. Providing controls that automatically exercise each lift station weekly is also desirable. KDHE strongly encourages all wastewater systems to have backup power to prevent the discharging of raw sewage for obvious reasons. Making these improvements would greatly decrease the likelihood of future bypasses.
- **The city's three-cell, nondischarging lagoon is in pretty good shape.** Capacity is not an issue since you really only use the south cell and occasionally use the northeast cell when needed. Effluent quality is not an issue, as the lagoon never discharges. The city has the equipment needed to mow the lagoon regularly. New warning signs have been posted and the fence is fine. KRWA measured the sludge depth in the south cell in 2005. Very little sludge was found (8.8 inches with total operating depth of 4.5 feet) so removal is not warranted. My only recommendation regarding the lagoon is to maintain the two north cells to ensure they would be available if ever needed in the future. They should be mowed occasionally. Also make sure no cattails or trees become established as they can damage the clay seal with their extensive root systems, causing seepage problems.
- **Smoke test your entire collection system.** By way of this letter, Charlie Schwindamann of KRWA will place the city on his list of systems requesting smoke testing. He can also probably provide you with a rough cost estimate. However, I think you will find the cost is very, very reasonable. Since your system is relative new

(1978) and composed of ductile iron pipe (or plastic) with pre-cast manholes, I would not expect to find a lot of inflow sources. But you never know until you smoke test. Charlie will be able to identify both private sources of inflow (uncapped cleanouts, roof downspouts, etc.) and those sources the city would need to correct. Elimination of inflow sources saves on electrical costs at your lift stations and helps prevent basement backups and bypasses.

- **Update the city's existing sewer and water supply maps.** Again, this is another service that KRWA can provide the city at a reasonable cost. As I mentioned, there also may be subsidy available to reduce the cost by 50% up to a grant of \$4,000. You can also use local surveyors to help map your systems. Regardless, it is needed. I provided a form that needs to be completed and submitted to Jesse Knight at KRWA, in order to obtain a cost estimate for new GPS mapping and map products. If you can do all the locates before Jesse arrives in town, mapping costs will be greatly reduced as he will not have to spend time searching for manholes, water meters, valves, etc. However if you need such help, KRWA is available to do that too. I suggest you call Jesse (785-294-0099) if you have other questions about mapping. He is also available to meet with both the RWD board and city council to discuss the mapping and provide examples of finished maps. I think you will be impressed.

Finally, the city needs to increase its sewer rates. I know you have heard countless regulators, grant writers and engineers tell you that many, many times. Believe me, you need to increase your rates, especially if the city wants to qualify for grants or loans through government agencies such as Rural Development, KDHE or the Kansas Department of Commerce (CDBG). I believe presently the city charges a flat rate of \$6.50 per month. I rarely encounter cities with such a low sewer rate. Adjusting the rate now will allow the council to raise rates incrementally as opposed to a single, large increase.

I realize increasing rates could be a hardship for some of your customers. But the city's sewer system must be run as a business and generate sufficient revenues to pay for all costs associated with treating sewage generated by your community. I doubt that the system is operating that way financially. Many systems are able to show on paper they have sufficient revenues by deferring needed maintenance. Obviously deferring maintenance is not a good idea. I suggest meeting with Rita Clary to discuss in detail those funding options that are available. She is very knowledgeable on the funding options and which loans and grants would best fit Denton. Rita's phone number is 785-850-0192.

If you have any comments or questions concerning this letter, please feel free to contact me at 913-850-8822 or jeff@krwa.net.

Sincerely,

Jeff Lamfers
KRWA Consultant

c: Paul Roberts, Clerk
Kathleen Clark, Operator
Brian Kingsley, BG Consultants, Inc.-Lawrence
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Jesse Knight, KRWA
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