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May 19, 2009

Jim Ludlow, Jr.  
City of Soldier  
209 Francis St.  
Soldier, Kansas 66540

Re: Recent Visit to Discuss Operation of Soldier's  
Wastewater Lagoon and Lift Station

Dear Jim,

I enjoyed meeting with you and Penny on May 12 to discuss the operation of your wastewater system. With the exception of needing to mow grass on the dikes, everything else looked pretty good. You definitely do not have a duckweed problem at this time, but that could always change with the onset of warmer weather. I suggest watching it closely to ensure that most of it blows to one side of the lagoon when it is windy. Should the duckweed blanket begin to cover more surface area of the first cell, let me know. When in the area I can check it and let you know what options to consider should you need to control it.

We also discussed at length the requirement in your permit to monitor both the lagoon influent and effluent when the lagoon discharges. Since the lagoon appears to discharge on an intermittent basis, you have two options:

1. **Inform your certified private testing lab that you want to be present when they collect all samples.** Not only does this allow you to confirm that all samples were collected at the correct locations, it also allows you to explain any non-compliance issues should the collected effluent sample exceed permit limits. Some private labs have also been known to "dip" samples off the surface of the final cell. This is totally unnecessary if the lagoon is not discharging. Again, no samples need be collected unless the lagoon is actually discharging to the receiving stream.
2. **Request your certified private testing lab send bottles so that you can collect them should the lagoon discharge.** While this is less convenient than having the lab collect samples, it ensures that samples are only collected when the lagoon is actually discharging. Please note that samples must be iced to keep chilled in route to the lab. There is also a holding time that cannot be exceeded between when the samples are collected and when the analysis begins. You will need to coordinate

the timing of this with your lab. This option also allows the city to make sure samples are collect should the lagoon only discharge for a few days due to heavy rainfall. If sampling is required, you must collect both influent (raw) and effluent (treated) samples. I believe you are required to monitor quarterly. Consequently, should the lagoon discharge even one day during a quarter, samples must be collected. In my opinion, this is the better option as it gives the city more flexibility in collecting samples and ensures all samples are collected properly and when necessary.

You will be required to obtain a Class I wastewater certification. A Class I is required since Soldier's lagoon is permitted to discharge. You will need one year of on-the-job experience to be eligible to take the examination. I will try to find you several reference books that should be helpful in preparing to take the examination. In the meantime, I suggest attending several of the KRWA workshops that should help prepare you for the exam. A listing of future workshops can be found on the KRWA website at [www.krwa.net](http://www.krwa.net).

Should you have any comments or questions concerning the operation of your wastewater system, please don't hesitate to call.

Sincerely,

Jeff Lamfers  
Consultant

c: Penny Ludlow, Mayor  
Helen Holm, KDHE-Lawrence