

Bobbie Walthall

From: Lisa Larsen
Sent: Tuesday, November 21, 2017 3:21 PM
To: Bobbie Walthall
Subject: Fw: Discharge of Nitrogen into Kansas River

Hi Bobbie:

I don't know if it is too late to add this to the record for the Farmland Remediation project. It is an email exchange with Thad Holcombe.

If possible, I'd like to make it part of the record.

Thanks,

Lisa Larsen

From: Thad Holcombe <tjholcombe@gmail.com>
Sent: Thursday, November 16, 2017 8:48 AM
To: Lisa Larsen
Cc: Eric Kirkendall; Michael Almon; Jessica Skyfield; Iris Craver; nthellman@douglas-county.com; Stuart Boley; Tom Markus; Brandon McGuire; Amy Burgin; Karin Pagel Meiners; Dave Wagner
Subject: Re: Discharge of Nitrogen into Kansas River

Lisa,

I very much appreciate your response to my email regarding the nitrogen discharge into the Kansas River. Your description gives me assurance that we are addressing the issue, something that I think the general public would appreciate knowing. I did not know the city had been meeting with KDHE nor that the city had been in collaboration with KU, etc. Your response describes what is being done and what will be done as the collaboration continues with all parties involved.

A related issue/concern is that the county is technically not involved...the County Administrator stated that the issue was a city concern. The reality is that it is a county and state concern when a river flows downstream. I am certainly not stating to you anything new. Addressing water concerns across political lines (county) again seems to have one jurisdiction assuming another one is responsible. How to integrate an understanding of living in bioregions, where all flora and fauna is effected, not just the human "fauna", seems to be one factor that continues to impede affirming we, as a region, are truly having a water crisis. And, as I shared with you and others, the quantity of water is a concern, but quality is as well when needing to have sustainable water policies. I appreciate the efforts of the City Commission to address the discharge and I trust you will continue to monitor the progress, it is somewhat a "Catch 22" situation.

I am taking the liberty of forwarding your response to WAT.

Thad

On Thu, Nov 16, 2017 at 6:43 AM, Lisa Larsen <llarsen@lawrenceks.org> wrote:

Thad:

I apologize for not responding sooner. I wanted to gather more information about this situation. Yesterday, I spent two hours with staff and toured the operation and discussed the project. I have read the most recent monitoring report and am familiar with the past activities from my time as an environmental consultant.

As you may know, the City has been meeting with KDHE in an effort to find the most responsible and safe, albeit short term, solution to handling the 30 million gallons of water currently being stored. Here are some of the steps we have taken in the last six months:

- 1) We added to the remediation team staff members who are experts in water and wastewater treatment. These aren't new hires but are staff that work in our water and wastewater department.
- 2) We have been collaborating with three KU professors regarding short term and long term solutions.
- 3) We are in the process of hiring an experienced environmental consultant to do a complete review of the remediation system and all data collected to determine the best path forward. One of the KU professors is specifically working on this part of the project to ensure we hire a qualified consultant. We plan to have a consultant hired by early spring 2018.
- 4) We continue to search for agriculture land that can use this water for the long term. The situation that has added to this problem is that there is less farmland in the land application program that needs the water. The most significant change occurred when there was a transfer of crop types from sod to corn/soybeans. The sod operation required nitrogen applied 4-5 times per year whereas corn requires it every other year, and soybeans never. To date, we have identified numerous additional properties; however, the feasibility of getting the water to these locations is questionable. We are working on this part of the problem.
- 5) Reviewed the feasibility of trucking the water to other areas. We offered this solution to KDHE. They were concerned about the safety issues of trucking water given the large number of truckloads it would take. The number of truckloads needed to transfer this volume of water is likely about 4,000-6,000. In addition to the safety issues, it also raises the question of energy spent to truck and the pollution generated.
- 6) KDHE has given us very strict parameters for discharging including: this is a one time authorization for the water being stored (btw Nov 2017 and April 1, 2018), limited amount per day (0.5 mgpd), river levels have to meet a specific criteria (> 3 orders of magnitude dilution capacity of the river), and the discharge water has to be tested for nitrate and ammonia at our discharge point to the river.
- 7) The water being discharged is from the storage areas that contain the lowest concentrations of nitrates. We store the highest concentration of nitrate contaminated water in the aboveground storage tanks which hold 7.5 million gallons. The water in these tanks will be used for land application. Land application is calibrated to ensure that the amount of nitrogen being applied does not exceed the uptake limit of the plants.

8) As a baseline, we have tested the river water at Burcham Park which is upstream from our discharge point. The nitrate level is 0.595 mg/l. The drinking water standard for nitrate in water is 10 mg/l. The impact that our water will have on the river is calculated to be 0.5 mg/l (this is total nitrogen and ammonia).

9) We are testing the water at our discharge point to the river. We are not testing it further downstream due to the number of other discharge points (both point source and nonpoint source) along the river that would impact the data. We don't believe it would accurately depict how our water is impacting the river. Our sample point locations have been reviewed by our remediation team and approved by KDHE.

10) There was a concern expressed at the City Commission meeting regarding the chromium contamination that had been associated with past activities on this property. Chrome was a concern; however, data shows that chrome was last detected in the early-mid 1990's. Per our permit, we continue to monitor the pH levels.

11) There has been concern expressed about the timing of the discharge. We believe it is imperative that we proceed with the discharge due to the concerns of freezing. We have already experienced freezing of the meter that tracks the quantity of water being discharged. We had to build a special container to house and insulate the meter from the cold weather. In addition to the meter, our pumps and the discharge lines that stretch across the ground for several hundred feet will have to be monitored and protected. All of this equipment will be subject to freezing.

11) We are developing a FAQ page that will be added to our website.

We are at a point in this project that requires a review of the best available technology for remediation given the current situation. Our storage capacity is full, there is not enough crop land to land apply the contaminated water, and we've had to stop pumping contaminated groundwater from the site which could impact the migration - that is why we are testing the groundwater monthly instead of quarterly.

There is no easy or good answer to this situation; however, I believe our continued collaboration with KU, the addition of experts to our remediation team, and the hiring of an experienced environmental consultant is a responsible approach for determining the best methods for addressing the short term problem and developing a long term plan to ensure the success of this project.

I will continue to closely monitor the progress of this project and will speak out loudly if I believe the situation is not being handled correctly. I believe my 30+ years experience in environmental consulting conducting investigations and remediation gives me the unique quality to evaluate the value and trueness of proposed remediation plans. I will use this insight and experience to keep watch over this situation.

Again, I understand your valid concerns and appreciate your continued engagement in the process of protecting our environment. I hope this provides some answers. Please don't hesitate to contact me for further discussion. I welcome the opportunity to continue this conversation with you or anybody else.

Thanks,

Lisa Larsen

From: Thad Holcombe <tjholcombe@gmail.com>

Sent: Monday, November 13, 2017 11:00:45 PM

To: lsoden@lawrenceks.gov; Stuart Boley; Mike Amyx; Matthew Herbert; Lisa Larsen; Nancy Thellman; Michelle Derasseou; Mike Gaughan; weinaug@douglascountyks.org

Subject: Discharge of Nitrogen into Kansas River

Mayor and Lawrence City Commissioners - Douglas County Administrator and Douglas County Commissioners,

Most likely my letter expressing concern regarding discharge of nitrogen into the Kansas River is not the only one you may be receiving. I say this due to both the number of emails I have received and in conversations with many folk in the community. I am writing as the Convener of WAT (Water Advocacy Team) composed of those who are interested in advocating a sustainable water policy, locally and statewide. Discharging nitrogen, regardless of the amount into the Kansas River, is not an action that is in keeping with such a policy. In addition, questions are being raised. What other contaminants are being discharged into the river? Is it possible to explain in more detail why trucking the discharge water into fields where needed is not feasible? Has the Kansas Department of Health and Environment given approval, if so, on what basis? How much more water will be discharged?

I realize both the City Commission and County Commission have a full plate, but I know I can speak on behalf of WAT in saying "more needs to be revealed"....and for an acknowledgement that such discharge into the Kansas River may solve our "problem", but the discharge will become the problem of citizens living downstream, not to mention the additional stress on the ecology of the river itself.

Thanks for considering my request for more clarity regarding these questions and elaboration of the reasons for action that was taken.

Thad Holcombe
Convener for WAT