

**From:** [Jeff Froese](#)  
**To:** [Mike Iwanyshyn](#)  
**Subject:** RE: Moderate GW risk for EMS at Kramer Dairy (RA19016)  
**Date:** September 3, 2019 11:53:00 AM

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Hi Mike,

Thank you for the below email. It makes sense and lines up with what we discussed earlier.

I scheduled a meeting with the Kramers and Chris Ullmann from AF for Thursday afternoon to discuss the below at the dairy.

Thank you and the MRT for your input on this file. I will give you an update on this file as the situation develops.

Jeff

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**From:** Mike Iwanyshyn  
**Sent:** September 3, 2019 11:40 AM  
**To:** Jeff Froese <Jeff.Froese@nrcb.ca>  
**Subject:** RE: Moderate GW risk for EMS at Kramer Dairy (RA19016)

Hi Jeff,

Based on the discussion with the MRT this morning, it was generally suggested and agreed that based on the available information:

- There is the possibility that there is a moderate potential risk to groundwater (regardless of final outcome of RST scoring);
- It would be beneficial to have more information. It was suggested that a way to obtain more information would be for the operator to:
  - determine the depth of the EMS.
  - advance a borehole on the downgradient side of the EMS (with respect to expected direction of shallow groundwater flow). The hole should be advanced to at least the top of bedrock and/or past the determined depth of the EMS. The hole should be logged properly, including determining depth to water table, and could also be completed as a groundwater monitoring well.
  - The NRCB and/or AF may be able to help with some of the information collection, and provide some advice.
- Collected information could be used to re-assess the site and possible as mitigation to potential risk; and
- The process will generally follow the applications steps right now.

Following any additional information/discussions we can re-convene to facilitate things going forward. Let me know if this summary and recommendations are generally in line with your

thoughts from the meeting too. Thanks.

On behalf of the Monitoring Review Team,  
Mike

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**From:** Jeff Froese  
**Sent:** Tuesday, August 27, 2019 10:06 AM  
**To:** Mike Iwanyshyn <[Mike.Iwanyshyn@nrcb.ca](mailto:Mike.Iwanyshyn@nrcb.ca)>  
**Subject:** RE: Moderate GW risk for EMS at Kramer Dairy (RA19016)

Hi Mike,

I just left a voice mail message on your cell. Further to that message, when you have time, can you please call me back? I would appreciate it if we could discuss this file and the attached documents this week.

Thank you,

Jeff

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**From:** Mike Iwanyshyn  
**Sent:** July 9, 2019 6:56 AM  
**To:** Jeff Froese <[Jeff.Froese@nrcb.ca](mailto:Jeff.Froese@nrcb.ca)>  
**Subject:** RE: Moderate GW risk for EMS at Kramer Dairy (RA19016)

Hi Jeff,

Sounds good. Like you say, it is important that we deal with addressing the potential risk at the site (i.e., protecting groundwater) and in a way that is feasible and that is likely to get cooperation. Look forward to continuing to work on it and an update.

Mike

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**From:** Jeff Froese  
**Sent:** Monday, July 8, 2019 3:48 PM  
**To:** Mike Iwanyshyn <[Mike.Iwanyshyn@nrcb.ca](mailto:Mike.Iwanyshyn@nrcb.ca)>  
**Subject:** Moderate GW risk for EMS at Kramer Dairy (RA19016)

Hi Mike,

Thanks for the discussion earlier about Kramer Dairy in Ponoka County and the moderate risk its EMS poses to groundwater.

I will get in touch with Mr. Kramer and will relay to him the above and I will quiz him as to if he has

any recollection or documents related to the EMS's construction.

If there are any signs that there may be some form of a constructed liner (aside from the digging of the hole), I will bring up the idea of having the liner tested for hydraulic conductivity.

Regardless of how my conversation goes with Mr. Kramer I will touch base with you after the dust settles to see if the monitoring review team needs to meet more formally on this file.

Thanks again,

**Jeff Froese**

*Approval Officer*

**Natural Resources Conservation Board**

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