



Hullcar Aquifer Water Quality

Meeting Summary

10:00 –11:45am, Monday March 21, 2016
Hullcar Community Hall

Purpose: To share information on BC Government's plan to address the water quality of Hullcar Aquifer, and provide an opportunity for dialogue on actions going forward.

Participants:

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| 1. Orlando Schmidt, MAg | 6. Todd York, Councillor, Township of Spallumcheen |
| 2. Christa Zacharias-Homer, MoE | 7. Corey Paiement, Township of Spallumcheen |
| 3. Robert Birtles, IHA | 8. Brian Upper, Steele Springs Water District |
| 4. Dr. Kamran Golmohammadi, IHA | 9. Al Price, Save Hullcar Aquifer Team |
| 5. Kukpi7 Wayne Christian, Chief, Splotsin First Nation | |

Item / Action & Owner

1. Introductions
Discussion around participation of Dr. Kamran Golmohammadi, Medical Health Officer, Interior Health Authority as he was not identified in the meeting invitation. Resolution was Dr. Golmohammadi would participate as a silent observer.
2. Overview of the Inter-Ministry Working Group Hullcar Aquifer
C. Zacharias-Homer reviewed the Hullcar Aquifer Inter-Ministry Action Plan including review of the Vision, Goals and 9 key activities. This action plan has been endorsed by the four Assistant Deputy Minister's with roles in Hullcar aquifer water quality. Dialogue from the participants ensued and is summarized hereunder.

Al Price – co-chair of Save Hullcar Aquifer Team which formed to advocate for safe drinking water for all users of the Hullcar aquifer including Deep Creek.

Brian Upper – Steele Springs has collected data since 2009. Looking for a hydrological study to understand the direction of flow for the aquifer. Golder Report (2006) experts have an opinion but it is not confirmed absolutely. A hydrological study will prove the direction of flow.

Rob Birtles – Still investigating the best approach for understanding the direction of flow for the aquifer.

Al Price – This time last year government promised a study. More information is always good but we need action. Need to use the Drinking Water Protection Act to stop producers who are contaminating the aquifer.

Rob Birtles – Need more information to make that determination.

Christa Zacharias-Homer – The only farm in the Hullcar area with an order that requires authorization prior to using organic fertilization.

Al Price – When the feedlot shut down, it took seven years for nitrate levels to decrease. It will take seven to 10 years for the current nitrate levels to decrease. Cannot wait for operations to continue. Stop adding nutrients to the aquifer. Everything tried thus far has failed and wasted two years of time.

Todd York – No monitoring in place for the farms. What regulatory tools are available to ensure farmers adopt and abide by the Environmental Farm Plan program? Need to look at technological solutions with firm direction from ministries. Employ what is actionable such as bio-digesters – why not used. Seem to be avoiding biggest issue. Curious of authority/persuasiveness of Clean Water Act? Don't like to see potential of downplaying of aquifer. Taking too long – urge everyone to be more aggressive in action plan.

Brian Upper – Nothing has really changed. Jansen farm allowed to go ahead. They have a farm plan but do not follow it. They aren't following the nutrient management plan. 2012 first spike came. We thought they were using a professional but instead they were using a fertilizer sales person. Thought the Compliance Order would solve the problem – instead nitrates went up.

Corey Paiemont – Inter-ministry working group needs to take actions that residents can see occurring in Hullcar Valley. Need end dates to any study or work being done on nutrients in the area.

Al Price – fair amount of coverage on digesters. Provided an example of one operation that converted methane gas to electricity and sold back to the hydro grid. Output is sterile material used as bedding. Reduction in vet bills, etc.

Orlando Schmidt – Digesters do not reduce "N" well. They may make it more bioavailable. Anaerobic digestion on its own captures the energy value of manure and does not utilize nitrogen. Essentially, the same amount of nitrogen going into a digester comes out of the digester. There can be some conversion of organic nitrogen to ammonium nitrogen, which

is move bioavailable. There are some nutrient recovery technologies available and utilized on a few farms.

Al Price – Jansen uses a flush barn. It's a matter of disposal of manure. Persuade Jansen's need to change management practices and change flush barn system. See depopulation of Hullcar Valley. See needs for the action plan, but human element is missing. Linda Moll and husband are prisoners due to farm across the road. Discussion on improperly disposed of cattle along a fence line (Brian showed photo). There are concerns over smell and noise.

Christa Zacharias-Homer – advised Al that when he receives information such as this to call the RAPP line. Christa to provide number post meeting.

Kukpi7 Christian – Would like a formal invitation to Splatsin First Nation from BC Government to formally engage in the process/Hullcar Aquifer action plan. This is an issue of public interest in both safe drinking water and to support agricultural industry. Nutrients are an issue all over BC. Similar to issue of biosolids in Merrit. Not all about financial interest – public interest in drinking water. We need a balance between farming and nutrients. We need a plan to clean up the aquifer. He is concerned with issue management. Would like to know the names of the Deputy Minister's involved. Kukpi7 Christian has a private 300 foot well and is quite disturbing to find that there are high nitrate levels in the well. This is an issue of liability. There is a need to act now. There is a need for reassurance that there are no health problems.

Christa Zacharias-Homer - acknowledged Kukpi7 Christian and will provide names of deputy minister's as well as invitation from Minister of Environment to participate in the process.

Brian Upper – Currently 80-100lbs of nitrate per day flowing down Deep Creek to Okanagan Lake. Steele Springs only uses 10% of the water flowing from the spring. Concerned about whole province. Good three ministries are working together but need action.

Al Price – not just flowing into Steele Springs and Hullcar Valley. This is a head waters for Okanagan Lake (a trans boundary watershed) Okanagan lake serves tourist. Are tourists being notified. There is a significant amount of nitrates heading down Deep Creek to Okanagan Lake. Eutrophication will have an impact on fish and fish habitat. Trans boundary issues as nitrates make their way to the South Okanagan. Other things to think about is how much water taken away from the valley. Jansens are using rainbirds in summer during the day. Evapotranspiration keeps the water from the crops. Liquid being removed from aquifer and being replaced with pollution. Needs to be a long-term plan, , soil studies, aquifer studies, ...

Brian Upper – Dewater of manure needed so it can be shipped. Livestock manure dewatering is occurring at the Thurston operation.

Todd York – As farms become large scale there is a need of identification to local governments when operations are changing. Ministry of Agriculture should advise local government when new large operations are moving to an area. Identify how this problem can be avoided and legislate so it won't happen again. Local government could be an asset to siting of agricultural industry.

Todd York – requested a synopsis of notes from this meeting.

Orlando Schmidt – with the quota system, it is possible to have knowledge of when an operation is moving and to provide that notification. With farming businesses outside the quota system (e.g. hogs or beef feedlots), we don't necessarily have that information unless we pick it up informally through our industry connections.

Al Price – large industrial dairy farms get tougher for smaller dairy farms to survive.

Brian Upper – Wants a moratorium of nutrient application on the 'field of concern'. Most dairy farms want to do the right thing. Some do not. Need to ensure a level playing field. Farms don't know where they stand in relation to BMP's. Acknowledge those who are complying and who are doing the right thing. Dairy industry is watching. They don't want to point fingers.

Al Price – Active dairy farmers are concerned as want to do the right thing. Want an even playing field. Properties have been devalued up to \$30k by BC Assessment. Myriad of issues just starting to be tapped. Talk to the right individuals this afternoon and find their stories. This is a problem they did not create but are happy to be part of the solution. Happy to engage with government but request to have ministers stop stating that intensive farming has been happening in the Hullcar area for 100 yrs. Would like more notice on the next meeting.

3. Adjourn – 11:45am