

May 17, 2017

The Honourable Mary Polak
Minister of Environment
Room 112, Parliament Buildings
Victoria, BC
V8V 1X4

Dear Minister Polak:

Re: Comments on the proposed Hullcar Valley Area Based Management Plan

On behalf of Save Hullcar Aquifer Team (SHAT), we appreciate the opportunity to comment on the Draft Order that would establish a Hullcar Valley Area Based Management Plan, pursuant to s. 89 of the *Environmental Management Act*.¹

First, we are encouraged that Government proposes to address nitrate contamination in the Hullcar aquifer with a proactive, watershed-scale management strategy like an Area Based Management Plan (ABMP). Addressing the Hullcar situation will be a challenge, but we hope to be part of the solution. We hope to work with Government and other stakeholders to fully remediate the polluted aquifer -- and prevent such pollution from ever occurring again.

However, the ABMP can only achieve the goal of ensuring a safe drinking water source for all the Hullcar Valley residents if it is done right. As currently envisioned, the ABMP falls far short of that standard. In the attached report, we make specific recommendations about how to improve the draft Order so that it can ensure clean drinking water in the Hullcar Valley.

The current contamination of the Hullcar aquifer is the result of a combination of poor regulation of agricultural waste management and inadequate water resource planning.² Both of these elements are within the purview of the Ministry of the Environment; therefore, you hold the keys to the solution.

That solution must embrace certain fundamental principles. It must not only treat the current problem but also prevent future pollution. It must rely upon:

- reliable scientific evidence;
- a regulatory scheme that reflects international best practices;
- education and incentives to mobilize green knowledge and techniques;

- a mobilization of all concerned parties; and
- an inclusive and effective governance model.

In sum, the plan must provide for scientifically sound prevention and remediation. Unfortunately, contamination of the Hullcar aquifer occurred because the current system for management of effluent in dairy farms in the province falls far short of these principles. The problem is that BC Government measures and laws fall far short of what progressive governments are doing elsewhere.

Therefore, the Environmental Law Centre intensively researched the laws and policies that other jurisdictions use to address manure-based nitrate contamination. The attached report addresses how we can learn from other examples of Government Best Practices -- and improve BC laws and policies to create an ABMP model to address manure-sourced contamination in the Hullcar Valley. These reform recommendations include such things as:

- putting a cap on livestock density on farms;
- requiring Nutrient Management Plans for farms;
- requiring optimal management and storage of manure and manure lagoons; and
- supporting cleaner farm operations and alternative manure processing with education, technology transfer and financial incentives.

Many other BC valleys – like the Fraser Valley, Cowichan Valley, Comox Valley and Okanagan Valley -- face the same challenge of livestock contamination of water. Therefore, we urge you to consider applying the recommendations made here to create an optimal – and generally applicable -- Dairy District Area Based Management Plan.

In addition, we have the following serious specific concerns with the draft Area Based Management Plan order:

Funding

- The proposed ABMP does not ensure sufficient funding to prepare, implement or monitor progress of the ABMP. Inadequate funding will result in poor results.
- Input from key stakeholders will not be informed or useful, if they lack critical capacity. Yet the draft ABMP order provides no resources to allow non-polluting stakeholders to participate meaningfully in the planning and implementation of the ABMP. The draft order states, " Each party will bear the costs of participation in ABMP development."

This immediately creates an uneven playing field – businesses that contribute to the pollution problem have a direct economic incentive to participate and influence ABMP decisions. Government participants have full salaries and ample resources. Only concerned citizens impacted by polluted water will lack the resources to hire expertise and dedicate hours of unpaid time to participate. Citizen groups like SHAT do not have resources to do the necessary research, hire experts and logistically support a meaningful participation in the process. The Township of Spallumcheen town council and Splatshin Nation have already rejected the plan on the basis that they are unable to afford to

assist.³⁴ Down-loading of provincial responsibilities for contamination management onto poorly resourced groups of local concerned citizens and farmers is unfair – and can not lead to optimal results.⁵

Scientific Basis

- The ABMP does not set out a sufficiently aggressive nitrate target level. The ABMP target level is 9 mg/L – an infinitesimal shade below the Canadian Drinking Water Quality Maximum Acceptable Concentration (MAC) of 10. When 10 is the level above which water is deemed unsafe to drink, a Plan target of 9 mg/L is simply unacceptable. The target nitrate concentration in water should be reduced to a more conservative 3 mg/L -- to minimize the likelihood that concentrations will fluctuate above the maximum acceptable level of 10mg/L⁶.

Indeed, it is important to note that even the original March 6, 2014 Compliance Order issued to H.S. Jansen and Sons Farm Ltd. set a goal significantly below 9 mg/L – it set a goal of 6 mg/L.⁷ Note that Spallumcheen Council has also criticized the ABMP's target level of 9 mg/L as insufficiently aggressive.⁸ Our suggested target of 3 mg/L is more consistent with ambient background concentrations of nitrate in the aquifer -- which are likely on the order of 2 mg/L or less, as documented by Dr. Geller and his associates.⁹ In addition, the Chair of the Steele Springs Waterworks District suggested that the target be 3 mg/L target in his email to your Ministry of August 14, 2016.

- The draft ABMP does not explicitly commit to following objective scientific methods to address the problem: the ABMP should not be developed before the results of the scientific/technical studies on nitrate sources and contaminant plume movement are completed.
- There is no Government assurance that the Best Management Practices for dealing with manure will be reviewed, considered and implemented. Our report canvases numerous jurisdictions that apply Best Practice rules and policies – by limiting animal density; requiring Nutrient Management Plans; regulating manure lagoon standards; subsidizing, educating and training farmers to use optimal disposal of manure, etc. The Plan should commit to implementing Best Practices used elsewhere.

Governance

- The ABMP does not set out a governance structure that would ensure the meaningful involvement of citizens. The roles of the Parties under the draft ABMP are unclear. Parties are uncertain what their roles and responsibilities are with respect to the process of developing the ABMP. There is no communication plan. At this time many parties aren't talking to each other.¹⁰ SHAT acknowledges the value of a collaborative process, and wants to participate in such a scheme.
- There is no Government assurance that it will implement the Parties' recommendations. There is insufficient clarity about the criteria the Minister will use to decide whether the draft ABMP is acceptable -- and how it will be implemented once accepted.

- The draft ABMP includes proposed directives for the Deep Creek and Slack Creek watersheds, areas that are unaffected by the contamination. Stakeholders in these regions have not been identified as contributing to the contamination in the Hullcar valley. It may be unnecessary to impose enforcement measures on these parties, who may be unlikely to accept measures forced on them.
- The new ABMP must establish a Technical Advisory Committee that includes experts who are independent of the dairy industry and Government. Without these independent and objective experts, the ABMP will lack both scientific and public credibility.
- The draft ABMP does not adequately address the key land use planning and regulation measures necessary to protect water quality in the region. Improper land use contributed to the current nitrate contamination, and improved land use policies and regulation must be part of the solution.

Sharing of Information / Expertise

- The ABMP does not ensure that there will be a full and adequate sharing of information and data with stakeholders, so that they can participate with necessary knowledge. Government ministries with expertise should participate in development and implementation of the ABMP, and commit to providing full information to community groups.

In sum, since there is no BC precedent for an Area Based Management Plan for an agricultural contamination problem, this plan must be carefully drafted to ensure that the ABMP will actually work, and eliminate the nitrate pollution problem.

However, with necessary improvements, we trust that innovative solutions can be developed to deal with the current contamination in the Hullcar aquifer, and can be extended to address the widespread risk of nitrate pollution of groundwater across BC. Please accept the attached report,

Recommendations for Creating an Optimal Area Based Management Plan for the Hullcar Aquifer. We would be pleased to discuss this matter further, at any time.

Sincerely,

"Jessica Wilson"

Jessica Wilson, Law Student



Calvin Sandborn, Legal Director

¹ See the draft Hullcar Valley Area Based Management Plan order provided to the Save Hullcar Aquifer Team at Appendix A of the attached report.

² The recent hydrogeological report commissioned by the Ministry of Environment indicates agricultural waste (manure) is a primary concern and source of elevated nitrates in the Hullcar aquifer; whereas domestic septic waste is inferred to be a relatively lesser contributor. Golder Associates Ltd. *Hullcar Hydrogeology Study – Phase 1 and 2 Assessment*, (2017) at pg. 1, 28, and 31.

³ Telephone conversation, Al Price – director of Save Hullcar Aquifer Team, September 22, 2016.

⁴ Spallumcheen council has expressed additional concerns that the involvement of Columbia Shuswap Regional District and Regional District of the North Okanagan is not adequately defined. See the July 26, 2016 letter from Mayor Janice Brown of Spallumcheen to the Ministry of Environment at Appendix B of the attached report.

⁵ The risk represented by contaminated groundwater demands a prospective approach to managing groundwater quality in vulnerable sources such as the Hullcar aquifer -- and ample support by the government.

⁶ See the statement of Brian Upper, D.V.M, Chairman of Steele Springs Waterworks District, about Best Management Practices at Appendix D of the attached report.

⁷ See p. 5 of the March 6, 2014 Compliance Order 76600-20 Armstrong, which is found in Appendix C of our original application for a Drinking Water Hazard and Abatement Order, dated February 1, 2016.

⁸ See the July 26, 2016 letter from Mayor Janice Brown at Appendix B.

⁹ See April 21, 2016 letter from Wester Water Associates Ltd. to BC Ministers of Environment, Forests, Lands, and Natural Resource Operations, Health and Agriculture, at Appendix G.

¹⁰ Telephone conversation, Al Price – director of Save Hullcar Aquifer Team, September 22, 2016