

**From:** [Thorsten Arnold](#)  
**To:** [Linda White](#); [Julie Ireland](#)  
**Subject:** Request for Council Dep[utation on complex water contamination threat  
**Date:** Saturday, August 10, 2024 1:57:23 PM  
**Attachments:** [SPCArticle\\_Grey Bruce Faces Water Contamination Risks from Agricultural Practices.pdf](#)  
[Backgrounder\\_Karst Kemble.pdf](#)

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Dear Bruce County,

After a cluster of private rural wells was contaminated by inappropriate agricultural practices, I took time to study the individual issue at hand. It drew my attention to a much larger threat that is putting thousands of rural homes at risk. I recently presented my findings to the Drinking Water Source Protection Committee (an article that summarizes this talk is attached to this email). The committee was very impressed with the presentation, and recommended to present to both Grey and Bruce County councils. I also distributed the Backgrounder (also attached) that was written with several qualified community members.

The speaker will be myself, Dr. Thorsten Arnold.

The threat stems from the confluence of three risk factors:

- Karst and fractured bedrock with almost no protection from overburden/soil above this bedrock
- A large number of severances, most of which are now homes to citizens who rely on private drinking water. Each of these citizens is protected by Ontario's Environmental Bill of Rights, which requires government agencies to protect their rights including access to clean drinking water.
- A dramatic transition of agricultural practices, from pasture-based agriculture that kept soil covered year-around to annual cropping practices that leave soil bare for most of the year, in combination to confined animal feeding operations that create unprecedented volumes of manure.

Numerous examples in North America clearly show that this combination of risk factors leads to broad drinking water contamination, and massive financial and health damages to the citizens living in rural areas. In this context, citizen action and a government response (including policies that restrict certain agricultural practices) is unavoidable.

The purpose of this deputation is to educate the council of the "confluence threat" to drinking water in our region that is putting the rights and property value of thousands of citizens at risk. Answers to two questions depend on the future action of local government agencies:

- Will community action is re-actively after another Water Contamination Tragedy similar to Walkerton, or will the community will come together proactively and avoid the damage in time? The cluster of contaminated wells near Wiarion is an early warning.
- How large will be the financial liability to government agencies that have approved

severances and thus taken the responsibility to protect the rights of its inhabitants?

I believe that the accumulated damages in the Grey Bruce region can easily add up to 1 Billion dollars due to loss of life, impacts on health, loss of property value, and negative impact on our tourism and retirement economy.

I strongly urge both counties to do the following:

- ☐☐☐ - Form a task force to protect the drinking water sources from rural citizens, who are protected under Ontario's Environmental Bill of Rights.
- ☐☐☐ - Review whether the "confluence threat" is real, and confirm potential consequences for citizens, as well as potential liability of local governments.
- ☐☐☐ - Review the precedent case of Kewaunee County (Wisconsin), where identical risk factors have caused a dramatic contamination of drinking water sources, health impacts and several lawsuits. The region also offers a precedent for a policy response, based on robust research, and stakeholder consultation (including the Silurian Bedrock Agricultural Performance Standard).
- ☐☐☐ - Adapt and implement appropriate policies to protect the drinking water sources of thousands of Bruce County citizens. This may include ensuring provincial-level legislation that addresses the regulatory gap around ultra-susceptible aquifers.

Please suggest the next council meeting where I can offer this deputation.

Yours,

[Thorsten Arnold](#)

tel. [REDACTED] (home office with answering machine)

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I live at the base of the Saugeen (aka Bruce) Peninsula,  
on the traditional land of the Saugeen Ojibway Nation.

**Education:**

- Bachelor equiv., Env. Engineering (Technical University Cottbus)
- Master, Earth System Sciences (ICBM, CvO Univ. Oldenburg)
- PhD, Agricultural Economics & integrated watershed modelling (Univ. Hohenheim)

**Fields of work:**

- **Farmer:** [Persephone Market Garden](#) (Vegetable Boxes, Regenerative gardening)
- **Climate change & landscape resilience:** [Educator, advocate, consultant](#)
- **Regenerative Food Systems:** [Designer, consultant](#)
- **Holistic Management:** Professional educator, [Savory Institute](#)
- **Managing numerical models in public-sector institutions:** [Researcher, consultant](#)