

# Grey Bruce Faces Water Contamination Risks from Agricultural Practices: Drinking Water Expert Warns

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**Owen Sound, July 26, 2024** – At the Grey Sauble Conservation Authority building, Dr. Thorsten Arnold presented a critical report to the Source Protection Committee (SPC) regarding the risks of water contamination in the Grey Bruce region. The presentation, attended by SPC members, government staff, local councillors, and concerned community members, highlighted the pressing issue of water safety due to agricultural practices on Karst landscapes.

## Rising Concerns Over Well Contamination

Dr. Arnold's presentation began with alarming news about several private wells near Wiarton, which were contaminated by bovine manure. The contamination occurred due to allegedly negligent manure storage by a local farmer. "Currently, there are no legal protections for well owners," Dr. Arnold stated. "In cases of contamination, a lawsuit under the Ontario Superior Court of Justice or a voluntary settlement are the only ways injured parties can achieve compensation. These injured parties carry the full financial risk and the full burden of proof."

## Three Major Risk Factors in Grey Bruce

The presentation outlined three major risk factors contributing to the region's vulnerability:

1. **Karst Landscape Susceptibility:** The Grey Bruce region has extreme aquifer susceptibility due to Karst topography, fractured bedrock, and minimal overburden cover that would filter contaminated water.
2. **Proliferation of Rural Residential Dwellings:** Thousands of rural homes with private wells were established during the 1990s, increasing the number of citizens at risk.
3. **Shift in Agricultural Practices:** Recent years have seen a significant shift from pasture-based beef production to cash-crop-based cattle feedlots, leading to more exposed soil and higher contamination risks.

Dr. Arnold emphasized the inevitability of widespread water contamination, citing the precedent of Kewaunee County in Wisconsin, further down the Niagara Escarpment. There, community action was reactive rather than proactive. "The situation in Kewaunee County offers strong research and policy templates that stood up in two Wisconsin Supreme Court cases," he noted.

## Learning from Kewaunee County

The Kewaunee County case involved large dairy barns and manure lagoons contaminating the water supply, as well as nitrate pollution from spreading manure on shallow bare soils. Wisconsin's response included rigorous monitoring of nitrate contamination and the implementation of the Silurian Bedrock Agricultural Performance Standard. "These policies stood up in a Supreme court challenge. They are scientifically solid and politically robust," Dr. Arnold said, urging Grey Bruce to consider similar measures.

## **Policy Recommendations for Grey Bruce**

Dr. Arnold proposed several immediate policy actions for Grey Bruce:

- Monitor aquifer nitrate contamination in mixed land-use areas.
- Implement a broad education campaign about karst, fractured bedrock, and vulnerable aquifers.
- Recommend Wisconsin's Silurian Bedrock Agricultural Performance Standard.
- Restrict agricultural practices near residential clusters on fractured bedrock through bylaws.
- Declare Drinking Water Issues for well clusters, starting with areas like Wiarton Airport and Kemble.

## **Community Reactions and Concerns**

The presentation was well received, with the SPC chair and members lauding Dr. Arnold's efforts. Environmental representatives inquired about legal proceedings, while farmers discussed existing policy tools. Municipal representatives recounted personal experiences with nitrate contamination, highlighting the urgency of the issue.

One community member pointed out additional well contaminations near Wiarton Airport, emphasizing the widespread nature of the problem. "Nutrient Management Planning is pushing feedlot operators from large urban centres to truck manure here, and dump it on our vulnerable Karst farmland," Dr. Arnold warned. "This jeopardizes the quality of drinking water, especially with diffuse nitrate contamination."

## **Moving Forward**

Dr. Arnold expressed hope that the SPC and government agencies would work together to protect the region's residents. "Farmers and local governments have a shared responsibility to protect residential homes," he stated. "Our community needs a strong signal that the SPC will act to safeguard our drinking water."

The SPC and staff are awaiting procedural details from MECP on recognizing rural private well clusters in their Terms of Reference, a necessary step to declaring Drinking Water Issues under the Clean Water Act.

## **A Call for Action**

Dr. Arnold concluded with a stark choice for local government agencies: act proactively to protect thousands of rural homeowners, or face widespread contamination and potential class action lawsuits under Ontario's Environmental Bill of Rights – the only alternative pathway that remains to homeowners. "The community needs the SPC to take leadership," he urged. "It's about creating a fair solution that protects local rural homeowners against a handful of farmers who don't recognize the extreme dangers around Karst and fractured bedrock aquifers, and whose practices put thousands of homes at risk."

As Grey Bruce faces these critical challenges, the community looks to its leaders for decisive action to prevent a water contamination crisis.

For more information, please contact the Source Protection Committee or Dr. Thorsten Arnold directly.