



January 13, 2020

Sanjay Coelho  
Ministry of the Environment, Conservation and Parks - Environmental Policy Branch  
40 St Clair Avenue West, Floor 10  
Toronto, ON

Dear Sanjay Coelho,

Greater than 80% of the population of the Grand River watershed relies on groundwater as their principal source of water, with a large portion of this water sourced from bedrock aquifers. Within the watershed, the Township of Centre Wellington, City of Guelph, and City of Cambridge rely almost exclusively on groundwater for municipal supply. These municipal wells draw their groundwater from a combination of both shallow and deeper bedrock aquifers. A number of municipal bedrock wells have been impacted by industrial contaminants. Through the Lake Erie Region Source Protection Program, several municipal bedrock wells in the Township of Centre Wellington and City of Guelph have elevated levels of Trichloroethylene (TCE) and have identified TCE as a Drinking Water Issue.

Surface water systems throughout the watershed, including the middle Grand River, lower Speed River, and Eramosa River, rely on discharge from shallow bedrock aquifers. This groundwater discharge also supports cold water fisheries in the watershed. Flow and water quality in the Grand River between the City of Cambridge and Town of Paris also benefit significantly from clean groundwater discharges from bedrock aquifers.

Bedrock aquifers in this area of southern Ontario are well documented to be highly fractured in areas with karst features present at some locations. Fracture and karst networks are complex and challenging to characterize. These features increase the vulnerability of a bedrock aquifer to contaminants entering the system and movement along the flow path. An example is in the City of Cambridge where homes built over a fractured bedrock aquifer have been significantly impacted by soil vapors originating from a historic industrial chemical spill. This spill, which occurred greater than 30m away from the Grand River, also resulted in TCE discharging through groundwater seeps into the Grand River from the bedrock aquifer.

The current proposed amendment could increase the risk to public health and could reduce ecosystem protection by removing the requirement for groundwater sampling in the bedrock under the conditions proposed in the ERO posting if practitioners use this provision to not assess the potential for contaminated groundwater to travel into homes, drinking water sources, or discharge into surface water.

Given the large dependence on bedrock aquifers in the Grand River watershed where clean groundwater is fundamental to community health and supporting a strong local economy , groundwater quality must be maintained and protected. Modifying the current protections in place may increase public burden and cost by potentially increasing public risk in the future. While we support increased utilization and redevelopment of brownfields, this should not be done to the detriment of protecting groundwater quality.

Regards,

A handwritten signature in black ink, appearing to read "S. Strynatka".

Sonja Strynatka, P.Geol.  
Senior Hydrogeologist  
Grand River Conservation Authority

Cc: Dwight Boyd, Director of Engineering, Grand River Conservation Authority  
Martin Keller, Lake Erie Region Source Protection Program Manager