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Ministry of Natural Resources, Development and Hazard Policy Branch  
300 Water Street  
Peterborough, ON  
K9J 8M5 Canada

**Re: Enabling the Development of Commercial-Scale Geologic Carbon Storage in Ontario: The Geologic Carbon Storage Act**

Peel Region appreciates the opportunity to comment on Enabling the Development of Commercial-Scale Geologic Carbon Storage in Ontario: The Geologic Carbon Storage Act. Peel Region staff comments are included herein.

**Peel Region Staff Comments**

Enabling commercial-scale geologic carbon storage (CCS) in Ontario offers a promising solution to mitigate climate change, but it also presents significant risks that must be considered and addressed due to the uncertainty regarding the long-term storage integrity of carbon dioxide in geological formations, including the potential for leakage from storage sites. Regulatory frameworks and monitoring systems will need to be robust to ensure carbon dioxide remains securely stored over centuries. Additionally, the economic feasibility of large-scale CCS is contingent upon securing consistent, long-term financing, especially considering the high upfront costs of infrastructure development and ongoing monitoring. Public perception of CCS, particularly in relation to environmental safety and potential health impacts, could also hinder its acceptance and deployment.

In terms of the proposed Geologic Carbon Storage Act (Schedule 2 of Bill 228, Resource Management and Safety Act, 2024), Peel Region staff note that Part III – Authorizations – Issuance of Permits (d) speaks about the potential impact to “drinking water sources” but does not define this term. Without a definition, the term may be interpreted as limiting consideration to only the immediate areas of potential concern, such as the Wellhead Protection Areas for municipal water sources, while the overall aquifer feeding the supply well must be considered for the long-term sustainability of aquifer water quality.

Peel Region staff thinks the proposed Act does not clearly identify all of the potential impacts, listing just a few, including drinking water sources and agricultural. For instance, the Act does not identify the possible impact from potential seismic activity around the injection wells and the storage area. Seismic activity may change aquifer storage conditions by fracturing aquitards and therefore changing the natural groundwater flow regime.

Ontario is not known for gas reservoirs; therefore, geology may not be suitable for storing compressed gas, which raises some concerns on the future of those facilities and the long-term impact to groundwater resources.

As part of the enabling regulations, the Ministry of Natural Resources is encouraged to take into consideration the following:



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- To not issue a permit unless the application includes a statement from a qualified person stating that the proposal will not significantly increase the risk of the municipal water source being contaminated, or present water supply challenges.
- Specifically reference and make linkages to requirements of the Clean Water Act, 2006 on permits proposed in vulnerable areas. Furthermore, Peel Region staff recommend that municipalities and applicable Source Protection Authorities are identified for notification.

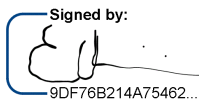
The potential benefits of CCS for Ontario are substantial. If implemented successfully, CCS could significantly reduce greenhouse gas emissions from high-polluting industries such as cement, steel, and energy production, helping Ontario meet its climate targets. Furthermore, it could position the province as a leader in CCS technology, potentially attracting investment and creating new job opportunities in the clean energy sector. The development of CCS infrastructure could also drive innovation in related fields, such as carbon utilization and renewable energy integration, contributing to a more sustainable and resilient economy.

## CONCLUSION

Peel Region asks that the ministry consider these comments on the Geologic Carbon Storage Act as part of the study of Bill 228, Resource Management and Safety Act, 2024 at committee.

If you have any questions or require more information, please contact Luis Lasso at [luis.lasso@peelregion.ca](mailto:luis.lasso@peelregion.ca).

Kind Regards,

Signed by:  
  
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