

Have You Got Methane? Latest Trends in Vapour Mitigation for Brownfields.

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Brownfield property developers often need engineered systems to protect the health and safety of future building occupants, comply with environmental guidance and regulations, and minimize potential liability. At present, most of the standards and guidance for design and performance monitoring of mitigation systems follow documents developed by radon researchers about 40 years ago. More recently, vapour mitigation has been geared towards addressing methane and volatile organic compounds (VOCs) in the subsurface. Like VOCs and Radon, methane can be present in the subsurface from a variety of sources, and often the source type will play a significant role in the approach to mitigation of the vapour intrusion pathway.

What's new, what are the options, and what is the cost? We will discuss limitations of the conventional approach and provide multiple lines of evidence with minimal additional cost. For large buildings, the net savings of an optimized mitigation design are on the order of ten times greater than the incremental cost of some additional diagnostic testing and data analysis. This presentation will provide an overview of the advancements and financial benefits include an overview of aerated floors, suction points installed through the floor slab and gas extraction, subslab depressurization and sub-slab ventilation in new and existing constructions.

Meggen Janes

Meggen Janes is a Principal at Geosyntec and a former Director at Waterfront Toronto. She has over 25 years of experience in brownfield redevelopment, risk based environmental strategies and remediation projects. She has specialized in unique strategies for public realm site redevelopment where use of soil and site management measures have been critical to the success. Meggen taught a graduate course in Soil Remediation for Ryerson University's Environmental Science and Management program and been a guest lecturer for many college and university programs.

Paul Nicholson

Paul Nicholson is an engineer and senior member of Geosyntec's vapour intrusion practice. He has over 15 years of experience in environmental consulting, vapour intrusion assessment, vapour intrusion mitigation design and construction. Paul's current focus is on the design and optimization of cost-effective sub-slab mitigations systems based on over a decade of research in this area.