



**Vancouver  
Geotechnical Society**

A Local Section of the  
Canadian Geotechnical  
Society

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**NOTICE OF UPCOMING TECHNICAL PRESENTATION  
Wednesday, January 24, 2018**

**TOPIC:** Study of Current Stat-of-Practice on Tailings Management Technologies

**SPEAKER:** **Kate Patterson, M.Eng., P.Eng., PE** – *Klohn Crippen Berger, Vancouver, BC*  
Kate Patterson is an Associate, Water Resources and Tailings Engineer at Klohn Crippen Berger. Her experience is in tailings management and water resource projects, spanning throughout Canada and internationally. She has worked on all aspects of mine environment and water resource projects from baseline environmental studies to geotechnical/environmental design, impact assessment/mitigation and closure. Kate has worked on some of the largest mining operations in the world. She manages multi-disciplinary design teams for large tailings dams, but technically specializes in tailings technologies, tailings planning, climate and hydrology assessments, climate change assessments, hydrotechnical design, water balance assessments, dam breach and inundation assessments, erosion estimation and protection, tailings staging, sedimentation pond design and cover design.

**CONTENT:** KCB completed a study examining and comparing dewatering technologies (e.g., thickened, paste and filtered tailings) to conventional slurry for the management of tailings (e.g., thickened, paste and filtered tailings) currently used in Canada. The strengths, limitations, and physical and environmental risks of these alternative technologies were compared to those of conventional slurry. Strengths, limitations and physical and chemical risks were considered across the entire life cycle of tailings facilities, from design and construction through to long-term post-closure.

The study applied the following approach:

- 1) Conduct a survey to identify the current state-of-practice, and projects that use alternative technologies in Canada.
- 2) Evaluate the alternatives, comparing tailings management technologies and costs using the information obtained in 1), along with case study information provided by select Canadian and international mine sites.
- 3) Review advantages and disadvantages of the technologies, assess applicability to Canadian mines, and identify knowledge gaps.

The main conclusion from the study is that there is NO one-size-fits-all technology or management strategy and no technology should replace best practices in design, operations and closure of a tailings facility. This presentation will give high-level review of the study and present a snapshot of the current state-of-practice in the Canadian mining industry and key conclusions.

**DETAILS:** **Location:** Executive Inn, 4201 Lougheed Highway, Burnaby, BC V5C 3Y6  
**Social Hour:** 5:30 to 6:30 pm (drinks available at the hotel bar)  
**Technical Presentation:** 6:30 to 7:30 pm (No need to RSVP)  
**Dinner:** 8:00 pm (\$20 will be charged for dinner). If you would like to stay for dinner, please RSVP to Tim Morton via email ([timothy.morton@ghd.com](mailto:timothy.morton@ghd.com)) or at the door.