This presentation will introduce the concept of functional stability as a way to determine the end of the post-closure period for landfills in Alberta. The presentation will include the following:

- an overview of landfill post-closure requirements in Alberta. Post-closure care for landfills in Alberta is typically required for a minimum of 25 years, however in practice the regulatory process at the end of the 25 year period is not well established;
- an overview of functional stability and how it is applied outside Alberta. A functional stability assessment is performance-based, and has been successfully adopted to establish the end of the post-closure period for landfills in other jurisdictions. A landfill is considered functionally stable when it no longer presents a threat to human health and the environment. At a minimum, the assessment includes consideration of leachate, landfill gas, groundwater, and final cover conditions;
- an overview of typical data collection requirements and assessment approach;
- a discussion of short and long term cost considerations as they relate to landfill closure and post-closure in the context of functional stability; and
- a discussion of how functional stability could be applied to landfills in Alberta. This will include comparisons with outcome-based closure of contaminated sites.

Pete Marshall

Pete is Principal of Adelantar Consulting, a small Edmonton-based firm which specializes in the regulatory and engineering aspects of large scale containment projects including numerous landfills throughout western Canada and overseas. Pete was an active member of the Steering Committee that developed the Standards for Landfills in Alberta, and continues to be involved in a wide range of conventional and value-added containment-related activities.