Innovative Assessment Tools: Cutting Edge Remote Sensing and 3D Modelling
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Working within a budget is never easy – maximizing what you can do within a reclamation budget, given any number of potential activities and sites to manage, adds another level of complexity. By harnessing digital technologies including a specially-designed 3D modelling platform, ProDelta is able to help clients make decisions that will maximize the amount of work done within a budget, as well as the number of sites that reach closure status, thus reducing their liability.

One of the major challenges in planning and executing remediation and reclamation plans is in the confidence of soil volumes that require excavation or relocation. Using remote sensing and available site data, ProDelta uses surface topography, borehole data and analytical results to create a 3D Plume model with a calculated level of confidence. Modelling can be completed to provincial and/or site-specific guidelines. Following 3D Model completion, a remediation/reclamation execution plan with detailed volumes, sequence of events and schedule can be developed. The benefits of the 3D Model and how it can be used for additional assessment will be presented along with several case studies that pertain to liability reduction, and remediation planning.

Modelling is one tool employed to improve planning and support strategy. ProDelta continually seeks out available tools for managing site data, supporting proactive planning and conducting root cause analysis when challenges present themselves. They have developed a network of technology specialists and partners for driving innovation in the ways that sites are managed, and see collaboration and, in some cases, making recommendations to their peers, as keys to their success. An overview of their approach to technology adoption and increasing efficiencies in liability reduction will be discussed.

Ryan Tulloch
Ryan is an Environmental Professional and Applied Science Technologist. Over the last 19 years, he has worked as a consultant, an owner representative and started his own company in 2015. With a passion for technology and an understanding of different sides of the industry, he founded ProDelta to provide cost-effective environmental site management while integrating cutting edge technologies to provide better information, and to develop and execute on unique solutions.