The Infamous Legacy of Upstream Tailings Dams

**Abstract:**
The presentation explains in simple, lay-persons terms, what an upstream tailings dam is, and why they are susceptible to dam failures. Using recent dam failures in Brazil as precedent for the impacts associated with the upstream tailings dam construction method, the presentation explains the upstream construction methods, historical development and broad use, inherent liquefaction potential and dam failure risk, and the unfortunate consequences thereof. The presentation was originally presented at the SME MPD Conference in Colorado Springs (April 2019), where it received the conference’s annual Lou Cope Award for Best Presentation.

**Bio:**
Mr. Fuller, CPG, LEG, P.Geo. is a Founding Principal of Tierra Group International, Ltd. Matt’s professional experience spans more than 30 years applying geological, geotechnical, geo-environmental and geological hazards, design and consulting services to tailings dam design, construction, and operations management. Matt is Tierra Group's Chief Tailings Steward specializing in designing, constructing, operating, decommissioning, closing and reclaiming more than 50 different tailings storage facilities around the world. Matt serves on Independent Tailings Review Boards (per the Canadian Ministry of Energy and Mines) and performs due diligence, forensic studies, and expert peer reviews for mining companies, private equity firms, financial institutions, and insurance companies. In addition to development and operations, Mr. Fuller is well-versed in the Equator Principles, and has collaborated with international regulatory agencies to ensure socially sustainable tailings storage facility design, operations, closure, and reclamation.