All Hands on Deck! - A Semi-Quantitative Attempt to Characterize the Impending Qualified Tailings Professional Resource Shortage

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The mining industry is experiencing radical change in the governance of tailings storage facilities. Guidance and regulations crossing many jurisdictions continue to contribute to this amorphous change. Prevalent guidance from the Canadian Dam Association (CDA), Mining Association of Canada (MAC), Australian National Committee on Large Dams (ANCOLD) and the Global Tailings Standard being produced by International Council on Mining and Metals (ICMM) and others are establishing guidelines for more rigorous industry governance. A historic shortage of experienced tailings engineers has adversely affected the resource base available to deploy and support these new governance. An inventory was made to quantify the number and size of tailing dams worldwide to then estimate the labor required by qualified professionals and associated costs to meet ongoing tailings stewardship initiatives. The evaluation was initiated using available data documenting active and inactive jurisdictional tailings storage facilities. Several jurisdictions queried produced searchable databases synthesized based on dam geometry and hazard classification. Research identified that available information access and data provided were incomplete and the results provide dramatic insight into the resource deficiencies that currently exist and are projected within our profession.