Water Footprinting? Communicating mine site water performance in a circular economy

Stephen Northey ^a, Maureen Upton ^b, Patrick Williamson ^b, David Hoekstra ^b

a Department of Civil Engineering, Monash University, Clayton, VIC 3168, Australia b SRK Consulting, Suite 600, 1125 17th Street, Denver, CO, 80202, USA

Abstract

Achieving the aspirations of a circular economy requires standardised metrics to measure progress in energy, water, material and resource efficiency. The recently developed ISO14046 standard for water footprinting provides a framework for evaluating water use impacts consistently throughout supply chains and is aligned with life cycle assessment methodology. Complementing this are the impact characterisation methods for water use occurring in different regions that have been developed by the UNEP-SETAC Working Group for Water Use in Life Cycle Assessment. The use of these methods by the mining industry requires careful judgement due to the large variability in water use between mines. Nevertheless, the ability to clearly demonstrate water efficiency and performance to industry stakeholders provides benefits for those who adopt these methods.