

# Shifting Mine Closure to a New Paradigm

The mining sector is facing several unprecedented and emergent business challenges that need to be properly considered and managed. These include increasing economic volatility, rising demands from shareholders and stakeholders for sustainable environmental and social legacies, and rapidly increasing closure liabilities. As a result, mine closure will remain firmly on the sector's agenda.

The financial cost to close a mine is often both unrealistic and optimistic. ERM has observed actual costs are 2 to 10 times higher than original estimates. In addition, the large sums of money being invested in closure is not necessarily generating lasting positive value for companies or their shareholders and stakeholders. Is it time to tackle the problem of high costs and low value? ERM believes the time is long overdue.

Closure cost estimates are commonly based on overly optimistic design and operating decisions and expectations of closure dates, amplified by ambitious commitments for land rehabilitation and promises on permit conditions made in

pursuit of early access to sites. How many decisions have been made in design, permitting, and during operations to chase short term cash flow at the expense of eroding investment? Eroding reputation? Too many. Too often.

Mine closure has traditionally been viewed as a means to an end. Relinquishment successes across the globe are rare and there is little incentive for the return of financial securities and certification of closure completion. Long term/perpetuity management is rampant and carries with it significant resultant costs under current business models. ERM argues that treating closure as an end undervalues the land and the assets.

These (and other) closure challenges can result in a reputation for mining that is at odds with societies demand for a low-carbon, "green" future. If closure challenges reduce the attraction of investment, then where will that leave us?

Mining needs to shift its focus to a new paradigm.....**to Redefine Closure.** Within this new paradigm the concepts of Designing for Closure and Operating for

Closure will finally be adopted. Closure implications and costs will become central to decision-making. Residual site liabilities will be managed more effectively, and the potential of former mine sites and their assets will be repurposed for renewables, biodiversity/carbon footprint compensation and/or other regenerative uses will be found.

For mining to be a successful contributor to the circular economy, shareholders and stakeholders need to see mine closure as a catalyst for socio-economic value creation using these same lands and assets. This will require redefining closure from an industry problem to a shared opportunity. As is said, 'a problem shared is a problem halved'.

**At ERM we have moved from imagination to definition. Together with our clients we have defined The Mine We Want to See™. A mine where closure plays a central role in delivering outcomes to service societal sustainability needs and leaving positive legacies.**



# Shifting Mine Closure to a New Paradigm

The mining sector is facing several unprecedented and emergent business challenges that need to be properly considered and managed. These include increasing economic volatility, rising demands from shareholders and stakeholders for sustainable environmental and social legacies, and rapidly increasing closure liabilities. As a result, mine closure will remain firmly on the sector's agenda.

The financial cost to close a mine is often both unrealistic and optimistic. ERM has observed actual costs are 2 to 10 times higher than original estimates. In addition, the large sums of money being invested in closure is not necessarily generating lasting positive value for companies or their shareholders and stakeholders. Is it time to tackle the problem of high costs and low value? ERM believes the time is long overdue.

Closure cost estimates are commonly based on overly optimistic design and operating decisions and expectations of closure dates, amplified by ambitious commitments for land rehabilitation and promises on permit conditions made in

pursuit of early access to sites. How many decisions have been made in design, permitting, and during operations to chase short term cash flow at the expense of eroding investment? Eroding reputation? Too many. Too often.

Mine closure has traditionally been viewed as a means to an end. Relinquishment successes across the globe are rare and there is little incentive for the return of financial securities and certification of closure completion. Long term/perpetuity management is rampant and carries with it significant resultant costs under current business models. ERM argues that treating closure as an end undervalues the land and the assets.

These (and other) closure challenges can result in a reputation for mining that is at odds with societies demand for a low-carbon, "green" future. If closure challenges reduce the attraction of investment, then where will that leave us?

Mining needs to shift its focus to a new paradigm....**to Redefine Closure.** Within this new paradigm the concepts of Designing for Closure and Operating for

Closure will finally be adopted. Closure implications and costs will become central to decision-making. Residual site liabilities will be managed more effectively, and the potential of former mine sites and their assets will be repurposed for renewables, biodiversity/carbon footprint compensation and/or other regenerative uses will be found.

For mining to be a successful contributor to the circular economy, shareholders and stakeholders need to see mine closure as a catalyst for socio-economic value creation using these same lands and assets. This will require redefining closure from an industry problem to a shared opportunity. As is said, 'a problem shared is a problem halved'.

**At ERM we have moved from imagination to definition. Together with our clients we have defined The Mine We Want to See™. A mine where closure plays a central role in delivering outcomes to service societal sustainability needs and leaving positive legacies.**

