

Purpose

Mine closure is an important issue for many governments, stakeholders and the mining industry. When a mine is closed there can be serious impacts on the local community, especially if the mine had been a major economic player in the region providing substantial fiscal revenue and many social services (such as water, power, and health care). The closure of a mine can also raise environmental concerns about the historic management, and continuing management plans, for the mine.¹

Mine closure plans must therefore address a range of issues from the very first stages of mine development. Financial, social, health, safety, as well as traditional environmental and economic considerations are all critical in the development and implementation of mine site closure and reclamation plans.



Guiding Principles

IZA Members are encouraged to develop a mine closure plan as an integral part of a project life cycle. Mine closure plans should ensure that:²

- Future public health and safety are not compromised;
- Environmental and resources are not subject to physical and chemical deterioration;
- The after-use of the site is beneficial and sustainable in the long term;
- Any adverse socio-economic impacts are minimized; and
- All socio-economic benefits are maximized.

A mine closure plan could also encompass the following guiding principles:³

- a vision of the end result for mining land that sets out concrete objectives for implementation;
- ensuring that the mine closure plan is an integral part of a project life cycle;
- the preparation of a mine closure plan early in the process of mine development and in consultation with the regulating authority and local communities;
- the explicit inclusion of environmental, social and economic aspects in the planning for mining operations;
- allowances for review and evolution that stretch from the pre-mine planning phase, through construction, mining, and mine closure to post-mine stewardship.

¹ Mine Closure: World Bank, www.worldbank.org

² *Mining for Closure: policies, practices and guidelines for sustainable mining practices and closure of mines*. United Nations Environment Programme (UNEP), United Nations Development Programme (UNDP), Organization for Security and Co-operation in Europe (OSCE) and the North Atlantic Treaty Organization (NATO). 2005.

³ Mining for Closure. See reference above.



Mine Closure

GUIDING PRINCIPLES

Benefits⁴

The following benefits have been noted by companies in the mining and metals sector:

Reduced Costs and Improved Efficiency

- optimization of rehabilitation works undertaken during the productive phase of mining operations rather than deferral of costs to the end of the project;
- estimating and assessing effectiveness of rehabilitation and costs prior to final closure so that sufficient financial and material resources can be set aside;
- increased efficiency by reduction of double-handling for waste materials and topsoil;
- optimise mine planning for efficient resource extraction and return of ecosystem to a functional form;

Risk Avoidance

- identification of areas of high risk as priorities for ongoing research and/or remediation;
- involvement of key stakeholders in setting priorities for mine rehabilitation;
- reduction of exposure to contingent liabilities;
- reductions in impacts on local communities (e.g., environmental, social and economic);

Improved License to Operate

- improved access to: land resources from governments, capital from reputable lending institutions;
- the potential for reduced cost of capital and liability insurance;
- lower risk of regulatory non-compliances, greater acceptance/less resistance from key stakeholders (in particular local communities and land owners)



Member Success Stories

In preparation for closure of the Hercules mine in Rosebery, Tasmania, *Zinifex* consulted widely in developing a Decommissioning and Rehabilitation Plan (DRP). A series of meetings were held with the Rosebery community, local and State governments, and other stakeholders such as conservation groups and the Tasmanian Minerals Council to address the significant historical value for mining heritage and tourism and environmental legacy issues. This input enabled Zinifex to develop a closure plan that was acceptable to all parties.

Teck Cominco has always supported the city of Kimberley, B.C. and its citizens since it opened its Sullivan mine in 1909. Teck Cominco collaborated with the developer, the city and local citizen groups to ensure that the city's overall transition to a tourism economy after the mine closure was consistent with the broader community development plan, and its values related to wildlife (winning a World Bank award) and recreation.

Helpful Resources

- *Mining for Closure: Policies and Guidelines for Sustainable Mining Practice and Closure of Mines*, Copyright © 2005: UNEP, UNDP, OSCE, NATO
www.goodpracticemining.org/uploads/mining_for_closure_src.pdf

⁴ Mining for Closure. United Nations Environment Programme, United Nations Development Programme, Organization for Security and Co-operation in Europe and the North Atlantic Treaty Organization. 2005