



Standard 8

8 CLOSURE AND RECLAMATION PLANNING STANDARD

8.1 STANDARD

The purpose of this Standard is to define the requirements for reclamation and closure planning and the management of long-term legal and financial liabilities associated with sites.

This Standard does not include requirements associated with the social aspects of mine closure.

8.2 CRITERIA AND REQUIREMENTS

8.2.1 Regulatory Compliance

All approvals, licences and permits relating to mine closure and reclamation shall be secured and maintained in compliance with all relevant regulatory requirements, licences and any other applicable requirements.

8.2.2 Mine Closure Plan Development

To identify the technical aspects of closure and associated costs, mine closure shall be incorporated into the technical and financial evaluation of a new site or a planned major modification/extension to an existing site.

Preliminary or proposed post-closure mining land uses shall be defined and included during the design and construction of projects. Post-closure mining land use shall comply with any relevant regulatory requirements or agreements with external stakeholders.

A Mine Closure Plan shall be developed during the design phase of all new sites and once completed, a closure plan shall be maintained at all sites. The Plan shall define relevant regulatory/licence requirements, relevant closure and post-closure monitoring programs and bond release/lease relinquishment requirements.

The Mine Closure Plan shall define reclamation and closure objectives and success/completion criteria based on the agreed post-mining land use.

The Mine Closure Plan shall be distributed to relevant stakeholders to enable external views and requirements to be incorporated into relevant operational plans to enable reclamation and closure objectives to be met.

8.2.3 Mine Closure Plan Review and Update

The Mine Closure Plan shall be reviewed upon completion of the construction phase of a project and at least every five years thereafter. The Mine Closure Plan shall be reviewed annually when the project is within five years of the end of the life of mine and during the post-closure period. The Mine Closure Plan shall also be reviewed and updated after significant changes to the project (e.g., plant expansion, new tailings storage facility, etc.).



B2GOLD CORP.
Environmental and Biodiversity Standard 8:
Closure and Reclamation Planning

May 2018
Page 2 of 3

8.2.4 Reclamation and Closure Cost Estimates

Closure cost estimates shall be prepared using agreed resource industry methodology. Cost estimates shall be adequately supported with industry/contracted earthmoving accepted estimates, quotes or actual costs from similar activities.

Cost estimates prepared during the design, construction and operational stage of a project shall be prepared with an accuracy of $\pm 30\%$. Within the last two years of processing ore, sites shall update the Mine Closure Plan to include detailed reclamation and closure designs and cost estimates to an accuracy of $\pm 10\%$.

For existing disturbance, reclamation and closure liability, cost estimates inclusive of near mine exploration, shall be reviewed and updated annually.

Reclamation and closure cost estimates shall include costs associated with achieving post-closure land use objectives/criteria and any post-closure maintenance and monitoring activities as defined in the Mine Closure Plan.

Reclamation and closure cost estimates shall be formally approved by the site General Manager (or equivalent position) as part of the annual budget cycle.

Actual costs of progressive reclamation and closure activities shall be tracked against budget.

8.2.5 Final Closure Reports

Final site closure reports shall detail the reclamation and closure works completed until any bond release and lease relinquishment has been achieved. These reports shall include reclamation and closure objectives and criteria, methods used for the successful reclamation and closure of various aspects of the site (i.e., waste rock disposal facilities, tailing storage facilities), as-built surveys for structures, asset liquidation, and actual costs versus estimated costs.

Final closure reports shall detail ongoing post-closure management and monitoring activities (i.e., landform maintenance, water management and erosion control structures) and associated cost estimates.

8.2.6 Reclamation and Closure Records

Comprehensive and accurate records for reclamation and closure activities shall be retained for at least ten years after final lease relinquishment.

8.3 TERMS AND DEFINITIONS

Relevant key terms and definitions that relate to B2Gold's Closure and Reclamation Planning Standard are provided below:

Closure: The process followed when a site has reached the stage in its life cycle where the intended mining use has been permanently concluded. This generally includes issues such as decommissioning activities, reclamation and revegetation of disturbed areas for long-term physical and chemical stabilisation of the site. This also often includes stakeholder consultation regarding post-mining use.

Closure Success Criteria: An agreed standard or level of performance which demonstrates successful closure of a mine site. Specific milestones that indicate progress towards achievement of mine closure objectives, as agreed with stakeholders.



B2GOLD CORP.
Environmental and Biodiversity Standard 8:
Closure and Reclamation Planning

May 2018
Page 3 of 3

Decommissioning: The process that begins near or at the cessation of mineral processing and ends with the removal of all unwanted infrastructure and services.

Monitoring: The gathering, analysis (especially for trends) and interpretation of information for the assessment of performance.

Examples of monitoring subjects are: occupational health and safety, air, soil and water quality, flora and fauna, reclamation, social aspects including complaints, operational dust, noise, vibration, property damage, community health, community investment, historical and cultural sites.

Monitoring may be continuous, short-term or long term and may be undertaken manually or automated.

Reclamation: The return of disturbed land to a physically and chemically stable, self-sustaining condition compatible with future land use objectives.

8.4 REFERENCE MATERIAL

Nil

8.5 DOCUMENT CONTROL

Revision	Approved	Date	Description
Final	Ken Jones	17 th August 2014	Original 2014 issue of the B2Gold Environmental and Biodiversity Performance Standards
Final	Ken Jones	24 th May 2018	2018 revision, update and issue of the original 2014 B2Gold Environmental and Biodiversity Performance Standards