

Mine Closure Plan for Small Mining Operations

Pursuant to section 103AT(2) of the *Mining Act 1978* (Mining Act) this is the approved form for the submission of a Mine Closure Plan (MCP) for small mining operations. The form has been designed to meet the requirements of section 103AR of the Mining Act, and therefore all sections must be completed in order for this form to constitute a valid MCP.

This pro forma **cannot be used as a mechanism to submit an MCP for projects that are not considered small mining operations.**

The Department of Mines, Petroleum and Exploration (DMPE) considers a small mining operation to be defined as:

- scraping and detecting;
- dry blowing;
- wet and dry gravity separation activities; and
- the following activities for a total footprint for the mining operation of 10 hectares (ha) or less:
 - Mining excavations (such as pits, costeans, quarries, shafts, winzes, harvesting, and dredging), leaching operations (such as Carbon-in-Pulp (CIP), Carbon-in-Leach (CIL), vat leach, and heap leach), tailings treatment operations, crushing and screening, and any other appropriate mining or extraction activities.
 - Any construction activities incidental or conducive to the activities above including plant, tailings storage facilities, and overburden stockpiles.

DMPE generally considers that a small mining operation does not involve the mining of uranium, mineral sands or rare earth elements.

Where an operation does not meet the above criteria, approval to use the pro forma may be given by DMPE on a case-by-case basis. This approval must be received in writing prior to submitting the application and should be attached as evidence.

1. Cover page

Project title*:			
Mining Environmental Group (MEG) name and code*:			
Operator(s)*:			
Contact name*:			
Phone*:		Email*:	
Date*:			
Tenement(s):	Tenement holder(s):		

* Required

2. Project summary – Regulation 58N(a) and 58N(b)**2.1 Briefly describe the mining operation and list all mine activities, infrastructure present and land disturbances.**

Enter a written description in the box below. This should include details of the operation/method of mining (open pit, shaft, scrape and detect, etc.), method of processing (vat leach, metal detector, etc.), the history of the site/length of time the mine has been operating, a list of all mine activities and infrastructure, nature of mining activities (i.e. continuous or intermittent/seasonal mining) and operational parameters (dimensions of excavations, processing methods, etc.).

2. Project summary – Regulation 58N(a) and 58N(b)

2.2 A site plan(s) is attached that includes:

- the location of the operation;
- all proposed and existing site activities;
- tenement boundaries and labels;
- areas under rehabilitation;
- a key or labelling of all infrastructure and activities; and
- a north indication and a scale.

Yes

2.3 Life of mine estimate:

2.4 Total land disturbance area to date (hectare):

2.5 Total approved area (hectare):

2.6 Total rehabilitated area to date (hectare):

2.7 Current mine status:

Proposed Operating Care and maintenance Closed/monitoring

3. Revised mine closure plans (section not applicable for first MCP submission)

3.1 Summarise the improvement actions identified from last approval letter in the table below:

#	Comments from approval letter	Proponent response
1.	<i>Example: Provide an update on the consultation undertaken to discuss infrastructure pastoralist would like retained post closure.</i>	<i>Example: Stakeholder engagement register updated to include recent discussions with the pastoralist.</i>

3. Revised mine closure plans (section not applicable for first MCP submission)

3.2 Describe the changes that have occurred to the mine closure plan since the last submission:

Detail any changes made to the MCP in the box below.

4. Legislative framework – Regulation 58N(c)

Does the project have or require any other approvals that will affect the post mining land use and closure outcomes?

Common examples include water licences and works approvals from the Department of Water and Environmental Regulation.

If yes, enter details in the box below:

Yes

No

5. Environmental data and risk assessment – Regulation 58N(f) and 58N(g)(i), (ii) and (iii)

5.1 Describe the existing environment of the site/surrounding environment:

Enter a brief description of the environment, topography, presence of major features (roads, homesteads, etc.) in the box below. Where applicable include:

- detail of any known contamination and remediation required; and
- outcomes of monitoring progressive rehabilitation.

The MCP application must consider the risks associated with a mining activity.

DMPE has identified the common risks and environmental impacts associated with a small mining operation and developed a list of standard management strategies to manage these risks and impacts ([Table 1](#)).

5.2 Confirm you have reviewed the environmental risks/impacts and associated management strategies provided in Table 1 and confirm that this assessment captures all relevant risks for your operation and you agree with the management strategies.

If no, please attach a description of all environmental risks/impacts and proposed management strategies to this application.

Yes

No

5.3 Are there any additional environmental risks or impacts associated with your operation? If yes, provide details on the proposed management strategy to mitigate risk.

If no, proceed to 6.

6. Post-mining land use and stakeholder engagement
– Regulation 58N(d), 58N(e) and 58N(m)

6.1 Describe the underlying tenure (unallocated Crown land, pastoral lease, etc.) and any pre-mining land use(s):

Enter details in the box below. This may include details on any contamination, its remediation and any impacts to the post-mining land use.

6.2 If an Approvals Statement exists for this site – please state the post-mining land use (PMLU) as per the Approvals Statement.

If no Approvals Statement exists – please fill in questions 6.3 and 6.4

6.3	Is the underlying/pre-existing land use expected to change after the completion of mining?	Yes	No
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6.4 If yes at 6.3, describe the proposed change to post-mining land use in the box below.

If the underlying/pre-existing land use is expected to change after completion of mining, then engagement is expected to be conducted with the relevant stakeholders, especially the proposed post-mining landowners.

6.5 Stakeholder engagement on mine closure related matters (complete the table below). List the stakeholders who are affected by, or have an interest in, rehabilitation and closure of the mining project, and the engagement undertaken to date.

Engagement must be two-way and regular. Discussion topics should include (as a minimum) closure and rehabilitation, the proposed post-mining land use(s), completion criteria and rehabilitation monitoring results. Common examples of key stakeholders include regulatory agencies (e.g. Department of Biodiversity, Conservation and Attractions – where located within DBCA managed land), pastoral lease holder and Traditional Owners/Native Title group.

Date of engagement	Stakeholder	Description of items discussed	Stakeholder comments or issues raised	Applicant response and/or resolution

6.6 Describe the strategy for ongoing stakeholder engagement (complete the table below). Advise scheduling, which stakeholder and what will be discussed.

Stakeholder	Timeframe for engagement	Description of items to be discussed

7. Closure outcomes, completion criteria and monitoring – Regulation 58N(g)(iv) and 58N(h)

7.1 Describe the closure outcomes, completion criteria and monitoring for the mining operation (complete the table below). Please ensure all closure outcomes for the mining operation as listed on the Approvals Statement or the last approved/accepted MCP are included.

DMPE standard closure outcomes entered for reference.

No.	Closure outcome	Criteria and monitoring to demonstrate outcome is being met (i.e. how will it be determined that the outcome has been achieved?)	Frequency and timing of monitoring
C15	All mining related landforms and disturbances must be rehabilitated, in a progressive manner where practicable, to ensure they are safe, stable, non-polluting, integrated with the surrounding landscape and support self-sustaining, functional ecosystems or alternative agreed outcome to the satisfaction of the department.		
C16	All excavations will be backfilled and/or closed to ensure they are stable and safe, to the satisfaction of the department.		
C17	Placement of waste material must be such that the final footprint after rehabilitation will not be impacted upon by pit wall subsidence or be within the zone of pit instability to the satisfaction of the department.		
C18	All waste materials, rubbish, plastic sample bags, abandoned equipment, and temporary buildings to be removed from the site prior to or at the termination of the operation.		
C19	Any watercourses that are disturbed by mining operations will be restored, as far as practicable, to the pre-disturbance conditions.		
C20	Any shafts that have been operated within the activity envelope will be covered, fenced, or otherwise made safe to the satisfaction of the department.		
C21	All chemicals and hydrocarbons will be removed from site prior to or at the termination of the operation.		
C22	Upon discontinuation of use of heap leach or vat leach facilities, the lessee to appropriately flush each facility to ensure the absence of free cyanide within the facility.		

8. Closure implementation – Regulation 58N(i)(i), 58N(i)(ii) and 58N(i)(iii)

8.1 Describe the rehabilitation and monitoring program that will be implemented for all landform(s) and each mine activity to achieve the closure outcomes. Complete the table below.

No.	Mine activity	Rehabilitation work programme	Timing
8.2	Confirm that you will store records of approval documents, monitoring data or other evidence to demonstrate that the above commitments have been met.		Yes
8.3	Confirm that you will provide evidence of progressive rehabilitation to DMPE (e.g. results of the rehabilitation monitoring) during operations.		Yes
8.4	Confirm that you will, at the end of operations, provide evidence to DMPE to demonstrate that the completion criteria and rehabilitation implementation have been achieved/completed.		Yes
	<i>Note: The format for the submission is contained in the Mine Closure Completion guidelines available on the department's website.</i>		

9. Unexpected closure/temporary suspension and closure costs
– Regulation 58(i)(iv) and 58N(i)(v)

9.1 Describe the rehabilitation and closure actions that will occur if the mining operation prematurely ceases or enters a period of temporary suspension (e.g. excavations backfilled/made safe, rehabilitate areas where mining has been completed, hydrocarbons and chemicals removed from site).

9.2 Provide an estimate of the closure costs for the operation and detail the method used to calculate the estimate.

*Enter details in the box below. **Do not use** the Rehabilitation Liability Estimate (RLE) tool used in the Mine Rehabilitation Fund (MRF) as this will not reflect actual closure costs.*

Attachments (including reports/photographs, etc.)

No **Yes** *If yes, please remember to include the attachments when you submit this form.*

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Table 1: Risk Assessment for small mining operations

	Potential impacts from proposed activities	Management strategy
Land and soil	<p>Soil erosion.</p> <p>Limited topsoil for rehabilitation.</p> <p>Dust generation.</p> <p>Contamination of topsoil from adverse subsurface material.</p> <p>Hydrocarbon spills.</p>	<ul style="list-style-type: none"> • All excavations will be backfilled and/or closed to ensure they are stable and safe. • Topsoil and vegetation to be removed ahead of mining operations and appropriately stockpiled for later respreading or immediately respread as rehabilitation progresses. • All rubbish and waste will be appropriately managed and disposed. • All hydrocarbon spills or chemical spills will be contained and cleaned up within a timely manner. • Practicable measures (e.g. water carts) will be implemented to prevent or minimise the generation of dust. • All chemicals and hydrocarbons will be stored in appropriately bunded containers and removed from site prior to or at the termination of the operation. • Scrape and detecting and dry blowing operations are to be progressively rehabilitated so that no more than two hectares will be open (meaning disturbed without rehabilitation works being completed) at any one time. • Stormwater runoff directed away from areas adjacent to tailings storage, vat leach or heap leach facilities to minimise the potential for pollution or contamination of stormwater, or erosion of the facility. • Vat leach or heap leach facilities being constructed with an appropriate liner to prevent the pollution or contamination of the natural ground. • Tailings storage, vat leach or heap leach facilities constructed in a manner to prevent discharges from the facility to the environment.
Water resources	<p>Contamination of surface water.</p> <p>Altered/blocked/restricted surface water flows.</p> <p>Altered flooding regimes caused by mining infrastructure/landforms.</p> <p>Contamination of groundwater.</p>	<ul style="list-style-type: none"> • Water storage dams/containers will be appropriately lined/bunded. • Soil and material stockpiles will be sited appropriately to minimise run-off and sedimentation. • Disturbance within and next to waterways will be avoided where practicable. • Vat leach or heap leach facilities constructed with an appropriate liner to prevent the pollution or contamination of surface or underground waters. • Where an operation includes river sand mining no materials extracted from below the bed load zone of the river.

	Potential impacts from proposed activities	Management strategy
Biodiversity	<p>Impacts to fauna.</p> <p>Loss of conservation significant fauna habitat.</p> <p>Loss of conservation significant flora.</p> <p>Vegetation clearing outside approved areas.</p>	<ul style="list-style-type: none"> Approval boundaries will be marked using an appropriate method (flagging, geo-fence etc.). Clearing of large, mature trees will be avoided, where practicable. The development and operation of the project being carried out in such a manner so as to create the minimum practicable disturbance to the existing native vegetation and natural landform. Reasonable and practicable measures will be taken to prevent the spread of dieback and weeds. All excavations have appropriate fauna egress.
Rehabilitation and mine closure	<p>Rehabilitation of landscape to agreed outcomes not achieved.</p> <p>Rehabilitated area unsafe to humans and animals.</p> <p>Landforms are physically unstable or result in contamination to surrounding environment.</p> <p>Post mining land use not achieved.</p>	<ul style="list-style-type: none"> All excavations will be backfilled and/or closed to ensure they are stable and safe. Landforms are progressively rehabilitated to ensure they are safe, stable, non-polluting and integrated with the surrounding landscape. Topsoil and vegetation respread over disturbed areas. Final landforms are located such that they will not be impacted by pit wall subsidence or be within the zone of pit instability. All waste materials, rubbish, plastic sample bags, equipment and temporary buildings removed prior to or at termination of operations. Any shafts will be covered or otherwise made safe. All chemicals and hydrocarbons removed from site prior to or at termination of operations. Heap leach or vat leach facilities appropriately flushed to ensure the absence of free cyanide within the facility.