

# Mining Development and Closure Proposal for Small Mining Operations

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## Form

Pursuant to section 103AN(3)(b) of the *Mining Act 1978* this is the approved form for the submission of a Mining Development and Closure Proposal (MDCP) for small mining operations. The form has been designed to meet the requirements of 103AN(3)(d) and (e), and therefore all sections must be completed in order for this form to constitute a valid MDCP.

This pro forma **cannot be used as a mechanism to seek approval for amendments to sites or 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.
- 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. Project summary (Section 103AN(3)(d)(i))

**MDCP title (your reference):**

**Tenement/s:**

**Operator/s:**

**Contact name:**

**Address:**

**Phone:**

**Email:**

**Date:**

## 2. Tenement holder authorisation (Section 103AN(2))

Are you the registered tenement holder?

Yes

No

I have obtained written consent  
from the tenement holder.

## 3. Proposal description (Section 103AN(3)(d)(i))

**3.1** Describe the activities proposed:

<b>3.2</b> Estimated commencement date:			
<b>3.3</b> Estimated completion date:			
<b>3.4</b> Mineral/s to be mined:			
<b>3.5</b> Details of scrape and detect or excavations, including maximum number, length, width, and depth (in metres): If none mark "N/A".			
<b>3.6</b> Maximum tonnes of material to be mined and processed:			
<b>3.7</b> Will ore be processed on-site or off-site?	On-site	Off-site	N/A
<b>3.7.1</b> If off-site, where will processing occur?			
<b>3.7.2</b> If <b>on-site</b> , please describe: <ul style="list-style-type: none"> <li>the type of processing (e.g. dry or wet gold plant, CIP plant, heap or vat leach, crushing, and screening<sup>1</sup>); and</li> <li>maximum total throughput or processing volume (in tonnes) for the life of the operation.</li> </ul>			
<b>3.8</b> Will you be using chemicals, explosives, cyanide, or other dangerous goods? If <b>yes</b> , please describe <sup>2</sup> :			
<b>3.9</b> Details of supporting activities: <i>This could include camps, access roads, stockpiles etc. If none mark "N/A".</i>  <i>If supporting activities are proposed to support mining approved in a separate small operations MDCP, provide details of that MDCP including the registration ID.</i>			

<sup>1</sup> The Department of Water and Environmental Regulation (DWER) regulates emissions and discharges to the environment through a works approval and licensing process, under Part V of the *Environmental Protection Act 1986*. You will be required to obtain relevant approvals for a processing plant from DWER if you meet the relevant threshold.

<sup>2</sup> If you will be using dangerous goods, you will need to comply with Dangerous Goods Safety and Storage legislation. Contact Department of Local Government, Industry Regulation and Safety (LGIRS) for further information.

#### 4. Activity details table (Section 103AN(3)(d)(i))

Enter detail in the table below. Provide the maximum area for each activity, per tenement.

	Tenement/s			
<b>Activity type</b> (e.g. dryblowing, scraping/detecting, pit, plant, waste dump, camp, road, etc.)				
<b>TOTAL (ha)</b>				

#### 5. Activity envelope (Section 103AN(3)(d)(i))

A site plan/s is attached that includes: <ul style="list-style-type: none"><li>• indicative locations of all proposed and existing activities; and/or an activity envelope within which all activities will occur<sup>3</sup>;</li><li>• tenement boundaries and labels;</li><li>• a north indication;</li><li>• a key/legend or labelling of all infrastructure and activities; and</li><li>• at an appropriate scale and resolution.</li></ul>	Yes
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#### 6. Land use and stakeholder engagement (Regulation 58M(b) and 58M(g))

<b>6.1</b> Describe the underlying tenure (e.g. unallocated Crown land, pastoral lease, etc.) and any pre-existing land use/s:		
<b>6.2</b> Is the underlying/pre-existing land use expected to change after the completion of mining?	Yes	No
<b>6.2.1</b> If <b>yes at 6.2</b> , describe the changed post-mining land use:		
<b>6.3</b> If the activities are on a pastoral lease, confirm the pastoralist has been notified.	Yes	No

<sup>3</sup> Where an activity envelope is not provided the site plan showing indicative locations of proposed activity will be considered the activity envelope.

## 6. Land use and stakeholder engagement (Regulation 58M(b) and 58M(g))

**6.4** List any consultation that has occurred with **key** stakeholders (e.g. underlying land users directly impacted) to date, including any items discussed:

Date of engagement	Stakeholder	Items discussed	
6.5 Confirm you have completed a search of/enquiry of the Department of Planning, Lands and Heritage’s Aboriginal Cultural Heritage Directory system for the area subject to this proposal.		Yes	
6.6 Does your proposal partly or wholly intersect the boundary of an Aboriginal Heritage site?  Where the activities will impact an Aboriginal Heritage site, approvals are required under the Aboriginal Heritage Act 1972.		Yes	No

## 7. Legislative framework (Regulation 58M(a))

**7.1** Does the project have or require any other environmental approvals?

*Common examples include licences to take water or construct a bore under the Rights in Water and Irrigation Act 1914; or native vegetation clearing permits where a relevant exemption does not apply under the Environmental Protection Act 1986.*

*Note: In accordance with the Environmental Protection Act 1986, clearing permit exemptions may not apply to mining activities within an environmentally sensitive area (ESA) or Schedule 1 Area. Please see DWER for further guidance:*

[www.der.wa.gov.au/your-environment/environmentally-sensitive-areas](http://www.der.wa.gov.au/your-environment/environmentally-sensitive-areas)

Yes

No

**7.1.1** If **yes at 7.1**, enter details in the box below:

## 8. Baseline data (Regulation 58M(c))

### 8.1 Identify the environment in which the operation is located:

Open scrub	Dense scrub
Low scrub	Tall scrub
Salt bush/blue bush	Spinifex country
Salt lake/marsh	Sand dunes
Woodland	Hilly country
Flat country	Creek-lines
Breakaway country	
Other (specify):	

**It is recommended pre-disturbance photographs of work area/s are provided.**

**8.2** Any previous workings present (historical mines, shafts, open stopes, tailings dams, dumps, old equipment, etc.)?

Yes

No

**8.2.1** If **yes to 8.2**, describe the previous workings:

**8.3** Will the activities occur in reserved lands?

Yes

No

**8.3.1** If **yes to 8.3**, identify the reserve (e.g. timber reserve, nature reserve):

**8.3.2** If **yes to 8.3**, have you received consent to mine within the reserve?

Yes

No

**8.4** Will the activities occur in a public drinking water source area?<sup>4</sup>

Yes

No

**8.4.1** If **yes to 8.4**, confirm that you have consulted with the DWER and attach relevant information.

Yes

No

**8.4.2** If **yes to 8.4**, describe any specific management actions you will undertake to protect the public drinking water source.

<sup>4</sup> Public drinking water source area as proclaimed under the *Metropolitan Water Supply, Sewerage and Drainage Act 1909* or the *Country Areas Water Supply Act 1947*

8. Baseline data (Regulation 58M(c))			
8.5	Have you identified, to the best of your knowledge, any flora or fauna of conservation significance on the tenements listed in <b>Table 4</b> that will be impacted by the proposed activities? <sup>5</sup>	Yes	No
8.5.1 If <b>yes to 8.5</b> describe the distribution, locations and/or habitat: <i>Attach any relevant surveys as appendices.</i>			
8.5.2 If <b>yes to 8.5</b> , how will the impacts to conservation significant flora or fauna be managed?			

9. Waste rock/tailings/mine waste management (Regulation 58M(c))			
9.1	Will any waste rock or tailings be generated as part of this proposal?	Yes	No
9.2	Are you proposing to construct permanent landform/s (e.g. waste rock landform, tailings storage facility, heap leach)?	Yes	No
9.3	Will waste rock/overburden be backfilled into excavation/s?	Yes	No
9.1.1 If <b>yes to 9.1</b> , provide a description of any known problematic materials present in the waste rock, tailings and/or material to be leached (e.g. presence of potentially acid forming material, sodicity, salinity, dispersive potential):  <i>Where relevant, include a description of the methodology used to determine the nature of problematic materials present (e.g. assumptions based on surrounding geology) or attach any test work as appendices.</i>			
9.2.1 If <b>yes to 9.2</b> , describe and provide a diagram of the dimensions and/or design of the waste rock landform/s, tailings storage facilities, heap leach, vat leach, and/or any other landform/s to be constructed, including maximum height, and attach any relevant design reports:  <i>If a heap or vat leach is proposed, provide a description of liner type, process chemicals used, output.</i>			

<sup>5</sup> A flora and fauna desktop enquiry/search of the project tenements can be undertaken on the Department of Biodiversity, Conservation and Attractions (DBCA) [Dandjoo biodiversity data repository](#). If the search identifies flora or fauna of conservation significance, then further work, including on-ground surveys, may be required. This should be discussed with the relevant DMPE environmental officer.

10. Dust/noise (Regulation 58M(c))		
10.1 Is dust/noise likely to affect any sensitive receptors nearby (e.g. flora or fauna, places of residence, public road, towns/communities, etc.)? <sup>6</sup>	Yes	No
10.1.1 If <b>yes to 10.1</b> , detail dust/noise management measures:		

11. Water resources (Regulation 58M(c))		
11.1 Is water extraction or dewatering required to support the mining operation? If <b>no</b> continue at question 11.2	Yes	No
11.1.1 If <b>yes to 11.1</b> for what purpose is water extraction required (e.g. dewatering, processing, dust suppression)? <i>Where applicable describe where water will be extracted from (e.g. surface dams, groundwater bore, old shafts).</i>		
11.1.2 If <b>yes to 11.1</b> describe: <ul style="list-style-type: none"> <li>• volume to be extracted:</li> <li>• water quality (e.g. fresh/brackish/saline/hypersaline):</li> <li>• <i>how the water will be managed (e.g. stored, discharged): Provide the height and/or depth of any dams/turkeys nest dams.</i></li> </ul>		
11.2 Does the proposed activity involve disturbing the beds and/or banks of a watercourse? If <b>yes</b> , you may require the appropriate approvals from DWER.	Yes	No

<sup>6</sup> The operation will be required to comply with the requirements of the Environmental Protection (Noise) Regulations 1997.



## 12. Risk assessment and environmental outcomes (Regulation 58M(d))

The MDCP 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 (**Attachment 1**).

**12.1** Confirm you have reviewed the environmental risks/impacts and associated management measures provided in **Attachment 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

**12.2** 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 **12.3**.

### 12.3 Environmental outcomes

Where reasonably practicable the development and operation of the mining activities will be undertaken to meet the following environmental outcomes:

- Topsoil and vegetation to be removed ahead of mining operations and appropriately stockpiled for later respreading or immediately respread as rehabilitation progresses.
- All reasonable and practicable measures will be taken to prevent the spread of dieback and weeds.
- Lined storage dams and excavations will be fitted with appropriate fauna egress points to ensure that any fauna does not become entrapped.
- All rubbish and waste will be appropriately managed and disposed.
- All reasonable measures will be taken to ensure all hydrocarbons, environmentally hazardous chemicals, process water, and other environmentally hazardous substances or waste are stored and managed in a manner to prevent discharges to the environment.
- All hydrocarbon spills or chemical spills will be contained and cleaned up within a timely manner.
- Clearing of large, mature trees will be avoided, where practicable.
- All activities to be undertaken so as to avoid or minimise damage, disturbance or contamination of waterways, including their beds and banks, and riparian, and other water dependent vegetation.
- 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.
- The tenement holder taking all reasonable and practicable measures to prevent or minimise the generation of dust from mining operations.

For scrape and detecting and dry blowing operations:

- Scrape and detecting and dry blowing areas 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.

## **12. Risk assessment and environmental outcomes (Regulation 58M(d))**

For tailings storage, heap leach, and/or vat leach facilities:

- The tenement holder directing stormwater runoff 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.
- All tailing storage, vat leach, or heap leach facilities being constructed and operated to prevent the pollution or contamination of the natural ground, surface water or underground waters.

For river sand mining:

- No materials shall be extracted from below the bed load zone of the river.

### **12.3.1 Describe any objections or comments you have to the above environmental outcomes in the box below.**

## **13. Closure implementation and closure outcomes (Section 103AN(3)(d)(ii), (iii) and (iv))**

### **13.1 Describe how landforms (e.g. waste rock landform, tailings storage facility, heap leach) will be rehabilitated:**

### 13. Closure implementation and closure outcomes (Section 103AN(3)(d)(ii), (iii) and (iv))

#### 13.2 Closure outcomes

Where reasonably practicable rehabilitation and closure of the mining activities will be undertaken to meet the following closure outcomes:

- All mining related landforms and disturbances must be rehabilitated, in a progressive manner where practicable, to ensure they are safe, stable, non-polluting, and integrated with the surrounding landscape and support self-sustaining, functional ecosystems or alternative agreed outcome to the satisfaction of the department.
- All excavations will be backfilled and/or closed to ensure they are stable and safe, to the satisfaction of the department.
- 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.
- 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.
- Any watercourses that are disturbed by mining operations will be restored, as far as practicable, to the pre-disturbance conditions.
- Any shafts that have been operated within the activity envelope will be covered, fenced, or otherwise made safe to the satisfaction of the department.
- All chemicals and hydrocarbons will be removed from site prior to or at the termination of the operation.

For heap leach and/or vat leach facilities:

- 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.

#### 13.2.1 Describe any objections or comments you have to the above closure outcomes in the box below.

#### **14. Monitoring (Regulation 58M(e) and 58M(f))**

**14.1** Describe the monitoring that will be undertaken to demonstrate you have met the relevant and applicable environmental and closure outcomes in section **12.3** and **13.2** (e.g. photographic monitoring points):

**14.2** How often will this monitoring be conducted (e.g. annually in the first three years, biennially thereafter until closure outcomes achieved)?

## Attachment 1: Risk Assessment for Small Mining Operations

	Potential impacts from proposed activities	Management strategy
<b>Land and soil</b>	<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"> <li>• All excavations will be backfilled and/or closed to ensure they are stable and safe.</li> <li>• Topsoil and vegetation to be removed ahead of mining operations and appropriately stockpiled for later respreading or immediately respread as rehabilitation progresses.</li> <li>• All rubbish and waste will be appropriately managed and disposed.</li> <li>• All hydrocarbon spills or chemical spills will be contained and cleaned up within a timely manner.</li> <li>• Practicable measures (e.g. water carts) will be implemented to prevent or minimise the generation of dust.</li> <li>• All chemicals and hydrocarbons will be stored in appropriately banded containers and removed from site prior to or at the termination of the operation.</li> <li>• 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.</li> <li>• 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.</li> <li>• Vat leach or heap leach facilities being constructed with an appropriate liner to prevent the pollution or contamination of the natural ground.</li> <li>• Tailings storage, vat leach or heap leach facilities constructed in a manner to prevent discharges from the facility to the environment.</li> </ul>
<b>Water resources</b>	<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"> <li>• Water storage dams/containers will be appropriately lined/banded.</li> <li>• Soil and material stockpiles will be sited appropriately to minimise run-off and sedimentation.</li> <li>• Disturbance within and next to waterways will be avoided where practicable.</li> <li>• Vat leach or heap leach facilities constructed with an appropriate liner to prevent the pollution or contamination of surface or underground waters.</li> <li>• Where an operation includes river sand mining no materials extracted from below the bed load zone of the river.</li> </ul>
<b>Biodiversity</b>	<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"> <li>• Approval boundaries will be marked using an appropriate method (flagging, geo-fence, etc).</li> <li>• Clearing of large, mature trees will be avoided, where practicable.</li> <li>• 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.</li> <li>• Reasonable and practicable measures will be taken to prevent the spread of dieback and weeds.</li> <li>• All excavations have appropriate fauna egress.</li> </ul>