



# Small Scale Mining Code

## Version History

Version	Amendments	Date
Version 1	Original code	2013
Version 2	Minor changes due to commencement of the Mineral and Energy Resources (Common Provisions) Act 2016	September 2016
Version 3	Machinery of Government changes	November 2018

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# Part 1 - Introduction

## Background

In the July – December 2012 Six Month Action Plan, the Queensland Government committed to reviewing regulation and legislation for the small scale mining sector to reduce red tape. Amendments to the *Mineral Resources Act 1989* (MRA) carried in the *Mining and Other Legislation Amendment Act 2013* provide the legislative framework for small scale miners for opal and gemstones to operate on a mining claim up to 20 hectares using machinery for mining. Amendments to the *Environmental Protection Act 1994* (EP Act) are also made to provide that eligible small scale miners and explorers with low risk operations are exempt from environmental authorities.

These changes recognise the relative low impact and risk posed by these activities and removes some of the regulatory and financial burden to support this sector of the mining industry that has important economic and social benefits to communities in rural Queensland. This Small Scale Mining Code (the Code) has been developed to balance changes to the statutory regime by providing conditions and guidance to ensure small scale mining is conducted in a responsible manner.

## Purpose and application

Section 391C of the MRA provides for the making of the Small Scale Mining Code by regulation. Section 391C states that ‘a regulation may make a code, for managing impacts of small scale mining activities carried out under a mining claim or exploration permit (a **small scale mining code**), that—

- (a) states guidelines for small scale mining activities to—
  - (i) ensure the activities are carried out in an environmentally responsible way; and
  - (ii) ensure land subject to the activities is managed responsibly; and
  - (iii) minimise conflicts about land use because of the carrying out of the activities; and
  - (iv) ensure land is rehabilitated, and improvements on the land are restored to an appropriate condition, after the small scale mining activities carried out on the land are completed; and
- (b) imposes on the mining claim or exploration permit mandatory conditions concerning the conduct of authorised activities on land.’

In relation to (a) above, Parts 2 and 3 of this document provides guidelines for the conduct of small scale mining activities.

In relation to (b) above, Part 4 of this document imposes on the following authorities, mandatory conditions concerning the conduct of authorised activities on land:

- a mining claim for corundum, gemstones or other precious stones operating without an environmental authority (as a small scale mining activity); and
- an exploration permit for minerals other than coal operating without an environmental authority (as a small scale mining activity).

## **Relationship with environmental legislation**

This Code does not replace environmental regulation and enforcement under the EP Act by the Department of Environment and Science. Rather, the Small Scale Mining Code provides guidelines and conditions that will assist small scale miners conduct their activities and manage the land in a way that ensures the landscape upon which they work is kept in a reasonable state for current and future use. In doing so, this will inherently assist in achieving appropriate environmental standards.

Eligibility criteria required to be met in order to operate under a mining claim or exploration permit without an environmental authority are provided under the definition of 'small scale mining activity' in schedule 4 of the EP Act. If a tenement holder wishes to undertake activities outside of those criteria, an environmental authority will be required.

Small scale miners shall still be subject to complying with the general environmental duty of the EP Act as are all entities in Queensland. The administering authority for the EP Act will continue to monitor and enforce provisions to achieve environmental protection outcomes.

In addition, the Environmental Protection Regulation 2008 (EP Regulation) may prescribe conditions for small scale mining activities about the carrying out of the mining operation, for example about rehabilitating land and giving financial assurance or financial provision. Any prescribed condition under this Regulation or existing condition relating to rehabilitation overrides any guidance provided under this Code.

## **Part 2 – Guidelines for Mining Claims**

### **Introduction**

Small scale mining for opals and gemstones has relatively low impact on the landscape as compared with larger mines, such as an open cut coal mine. By the nature of the locality of known deposits of opals and gemstones, mining for these commodities is likely to be limited to remote areas of the state where impact on the land has a limited effect. While this has been recognised through changes in environmental licensing, it is important that activities in these areas are still undertaken in a responsible manner. Common sense flexibility is required for small scale activities where operators are more likely to be working alongside landowners. Responsible land use during mining operations and subsequent rehabilitation and restoration of improvements is important to minimise the impact on the landscape and landowners.

The following guidelines under this part are aimed at providing small scale miners with general principles and directions as to how to best undertake their activities while limiting impact to a reasonable level. Tenure holders should make every effort to comply with these guidelines however it is recognised that not all circumstances may lend to strict compliance and another outcome may be equally appropriate.

Under section 64A of the MRA, an applicant for a proposed mining claim must provide each affected person with a copy of this code. In this section affected person means—

- (a) an owner of land the subject of the proposed mining claim; or
- (b) an owner of land necessary for access to land mentioned in paragraph (a); or
- (c) the relevant local government.

## **Guidelines**

### **Land disturbance**

- Cleared vegetation should not be burnt, but should be saved for future use in natural seed regeneration and revegetation of rehabilitation areas and to mitigate erosion of those areas.
- Saved vegetation should be spread over re-profiled areas to promote regrowth through natural germination.
- Compacted areas should be ripped to minimise storm water runoff and promote revegetation.

### **Backfilling**

- All shafts and excavations that are to be backfilled should be overfilled to a raised mound profile to allow for settlement.
- Overburden should be returned to the excavation prior to respreading with topsoil.
- Reject sand and gravel (wash) from alluvial separation plants should be returned to the excavation as soon as practicable.
- Topsoil should be re-spread over backfilled areas as soon as practicable.
- Mullock and overburden heaps that are not required as a backfilling medium should be reshaped to a profile similar to surrounding undisturbed land and where appropriate, benched to mitigate erosion.

### **Excavations**

- Ridge cuts should be benched with no overhangs remaining.
- Any excavations that are to remain, with landowner agreement, for water storage after completion of mining, should be bunded and access provided for stock.

### **Dams**

- Puddling / slimes / silt dams should be located up slope from the water supply dam where practicable. Spillways and drains should direct settled water back into the water supply dam.

### **Erosion and sediment control**

- The high sides of excavations should be bunded to divert stormwater runoff.
- Rain water diversions should be installed to direct runoff into the water storage facility.
- Adequate erosion and sediment controls such as sediment traps and banks, should be installed and maintained to prevent erosion of disturbed areas and runoff of silt.
- Roads and tracks should have appropriately positioned diversions to prevent erosion from storm water runoff.
- *Erosion and Sediment Control – A Field Guide for Construction Managers* provides some useful guidance on topsoil and erosion management.

### **Noise and dust**

- Dust generation should be kept to a minimum.
- Roads, tracks and plant site should be watered as necessary.
- Separation plants should be fitted with dust suppression sprays as necessary.
- Noise generation from plant and vehicles should be minimized by fitting effective mufflers.
- Sound barriers should be erected if applicable.

### **Machinery and equipment use**

- All plant, equipment and structures should be removed from the tenure area prior to surrender, unless allowed to remain by written agreement with the landowner.

- All machinery leaving the area should be washed down to prevent spread of weeds. Note that it is a condition of a mining claim under section 9 of the Mineral Resources Regulation 2003 to prevent the spread of noxious weeds.

### **Roads and tracks**

- Where practical, consult with the local council regarding any new roads that are constructed that will impact on council maintenance of public roads.

### **Fuel storage**

- When deciding the location of fuel storage, consideration should be given to flooding, fire hazards and vegetation impacts.

### **General waste**

- General waste should be disposed at a waste facility rather than buried, where practicable.

## **Part 3 – Guidelines for Exploration Permits**

### **Introduction**

Exploration is a temporary land use and at all times a clear rehabilitation objective must be observed to return the land to a pre-exploration condition which is sustainable for all future users of that land. The following guidelines are aimed at providing holders of exploration permits for small scale mining activities general principles and directions as to how to best undertake their activities while limiting impact to a reasonable level. Exploration permit holders should make every effort to fully comply with the guidelines under this part, however it is recognised that not all circumstances may lend to strict compliance and another action or outcome may be equally appropriate.

Eligibility criteria required to be met in order to operate under an exploration permit without an environmental authority are provided under the definition of 'small scale mining activity' in schedule 4 of the EP Act. It is important to note, that among other criteria, the maximum area for disturbance in any one location, must not exceed 1000m<sup>2</sup> at any time.

### **Guidelines**

#### **Land disturbance**

- Care should be taken to avoid disturbing large and/or mature trees by selecting specific trees to be cleared and avoiding damage to surrounding vegetation. Where practical leave the rootstock intact to promote regeneration and regrowth.
- Cleared vegetation should not be burnt, but should be saved for future use in natural seed regeneration and revegetation of rehabilitation areas and to mitigate erosion of those areas.
- Saved vegetation should be spread over re-profiled areas to promote regrowth through natural germination.

#### **Erosion and sediment control**

- Adequate banks and/or diversion drains should be installed to minimise the potential for storm water runoff to enter disturbed areas.
- Roads and tracks should have appropriately positioned diversions to prevent erosion from storm water runoff.

- On new tracks, diversions should be installed to slow stormwater runoff and prevent erosion.
- *Erosion and Sediment Control – A Field Guide for Construction Managers* provides some useful guidance on topsoil and erosion management.

### **Roads and tracks**

- Where possible, use existing roads and tracks, with landowner agreement and as provided for in the Land Access Code.
- Where practical, consult with the local council regarding any new roads that are constructed that will impact on council maintenance of public roads.
- All machinery leaving the area should be washed down to prevent spread of weeds. Note that it is a condition of an exploration permit under section 14 of the Mineral Resources Regulation 2003 to prevent the spread of noxious weeds and a requirement of the Land Access Code.

### **Campsites**

- Locate campsites at least 100m from any riverine areas.
- Appropriate human waste disposal facilities should be installed e.g. portable self contained toilets, pit toilets, septic tanks.
- Absorption trenches, transpiration beds or spray irrigation should be used to dispose of grey water; and all disposal areas should be located at least 100m from any watercourse, waterway, groundwater recharge area, wetland or lake.

### **Noise and dust**

- Dust generation should be kept to a minimum.
- Noise generation from machinery and vehicles should be minimized by fitting effective mufflers.
- Sound barriers should be erected if applicable.

### **Drilling, excavating and sampling**

- All marker pegs should be marked with contrasting colour so as to be clearly visible.
- All permanent markers (example, concrete plugs or steel plates) are installed at ground level and made safe.
- Sumps should be used to contain drilling mud/fluid. Unused drill chips should be returned to the hole or disposed of in the sump.
- Sumps should be allowed to dry out before respreading with topsoil.
- Trenches, costeans and sample pits should be backfilled as soon as practicable after sampling.

### **Fuel storage**

- When deciding the location of fuel storage, consideration should be given to flooding, fire hazards and vegetation impacts.

### **General waste**

- General waste should be disposed at a waste facility rather than buried, where practicable.

## Part 4 – Mandatory Conditions

### 1 What this part is about

- (1) This part provides for the mandatory conditions for the following (each a **small scale mining tenement**)—
- (a) a mining claim, other than an authorised mining claim, under which a small scale mining activity is carried out (a **small scale mining claim**);
  - (b) an exploration permit, other than an authorised exploration permit, under which a small scale mining activity is carried out (a **small scale exploration permit**).

- (2) In this part—

**authorised exploration permit** means an exploration permit for a mining activity the subject of an environmental authority.

**authorised mining claim** means a mining claim for a mining activity the subject of an environmental authority.

**environmental authority** see the *Environmental Protection Act 1994*, schedule 4.

**mining activity** see the *Environmental Protection Act 1994*, section 110.

### 2 Definitions

In this part—

**holder** means a person who, under the Act, holds a small scale mining tenement.

**relevant person**, for a small scale mining tenement, means—

- (a) the holder of the tenement; or
- (b) a person acting for the holder of the tenement.

**small scale mining activity** see the *Environmental Protection Act 1994*, schedule 4.

### 3 Excavation

- (1) A relevant person for a small scale mining tenement must, before starting to excavate in the area of a small scale mining tenement—
- (a) strip all topsoil and overburden from the part of the area to be excavated; and
  - (b) keep the topsoil and overburden in a separate part of the area for the purpose of rehabilitating excavated areas for the tenement.

*Note*—

Under the *Environmental Protection Act 1994*, section 21A(1), a regulation may, for a small scale mining activity, prescribe a condition about rehabilitating land.

- (2) For subsection (1)(a), the topsoil and the overburden must not be mixed during stripping, other than to the extent that is unavoidable as part of the stripping process.

(3) For subsection (1)(b), the topsoil and overburden must not be kept together.

(4) In this section—

**excavate** means to use machinery to dig, but does not include stripping.

**excavated area**, for a small scale mining tenement, means a part of the area of the tenement that has been excavated.

**stripping** means the use of machinery to remove topsoil or overburden from land.

## 4 General waste

(1) This section applies to all general waste in the area of a small scale mining tenement.

(2) As soon as is reasonably practicable after the waste is generated, a relevant person for the small scale mining tenement must—

(a) bury the waste at least 1 metre underground; or

(b) take the waste to a waste facility at which the waste may be disposed of.

(3) In this section—

**general waste**, for a small scale mining tenement, includes any thing that is left over, or an unwanted by-product, from any activity carried out in the area of the tenement, other than the following—

(a) topsoil, overburden or wash;

(b) regulated waste.

**regulated waste** see the *Environmental Protection Regulation 2008*, section 65.

**wash** means sand or gravel separated from corundum, gemstones or other precious stones during their processing.

**waste facility** see the *Waste Reduction and Recycling Act 2011*, schedule.

## 5 Fuel storage

(1) A relevant person for a small scale mining tenement must ensure all fuel stored in the area of a small scale mining tenement is stored as required under the Australian Standard 1940 'The storage and handling of flammable and combustible liquids'.

## 6 Dams

A relevant person for a small scale mining claim must not do either of the following to a puddling dam, slimes dam or silt dam in the area of a small scale mining claim unless there is no water in the dam—

(a) re-contour the dam;

(b) cover the dam with topsoil.

## **7 Chemicals**

A relevant person for a small scale mining claim must ensure chemicals are not used for mineral separation or processing in the area of a small scale mining claim.

## **8 Drilling and sampling**

- (1) A relevant person for a small scale exploration permit must, as soon as is reasonably practicable after the drilling of a hole in the area of a small scale exploration permit, remove from the area all drill cores, trays and sample bags relating to the drilling of the hole.
- (2) A relevant person for a small scale exploration permit must, before the expiry day for the permit ends, ensure all marker pegs are removed from the area of the permit.

## **Part 5 – Contacts and Information**

### **Tenure enquires**

For any queries regarding resource authorities, please contact your local Department of Natural Resources, Mines and Energy Office during business hours (8:30am – 4:30pm Monday to Friday) excluding public holidays. Details of departmental offices are listed on the department's website—offices in prominent opal and gemstone regions are as follows:

#### **Quilpie District Office**

Court House  
Buln Buln Street  
Quilpie QLD 4480

PO Box 29, Quilpie QLD 4480  
Ph: (07) 4656 1266  
Em: mines.quilpie@dnrme.qld.gov.au

#### **Emerald District Office**

99 Hospital Road  
Emerald QLD 4720

PO Box 245, Emerald QLD 4720  
Ph: (07) 4987 9350  
Em: ssmhub@dnrme.qld.gov.au

## **Winton District Office**

Court House  
Vindex Street  
Winton QLD 4735

PO Box 230, Winton QLD 4735  
Ph: (07) 4657 1727  
Em: [mines.winton@dnrme.qld.gov.au](mailto:mines.winton@dnrme.qld.gov.au)

Tenure and policy related information, including forms and other guidelines, are available on the department's website: [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au)

For help, information and technical support contact the MyMinesOnline helpdesk.  
8.30am – 4.30pm (AEST) Monday to Friday on Queensland business days.  
Telephone: +61 7 3199 8133  
Email: [mines\\_online@dnrme.qld.gov.au](mailto:mines_online@dnrme.qld.gov.au)

## **Environmental enquires**

For environmental related enquires please contact the Department of Environment and Science on 13 74 68 or by visiting the website: [www.des.qld.gov.au](http://www.des.qld.gov.au)

**Call: 13 QGOV (13 74 68)**

**Visit: [www.dnrme.qld.gov.au](http://www.dnrme.qld.gov.au)**