**November 2020**

Introduction

This format and guideline may be used by holders (or applicants) of Class G Mineral Claims in the Lightning Ridge Mineral Claims District. With the prior approval of an Environmental Officer of the Department, the format and guideline may also be used for other types of applications.

Class G Mineral Claims were introduced to provide for the extraction of Opal by conventional open cut mining techniques.

All holders of Class G (Open Cut) Minerals Claims are required to operate in accordance with a **Mining Operations Plan (MOP),** approved by the Department of Regional NSW (the Department). The MOP must be approved by the Department prior to the commencement of surface disturbing activities.

The MOP will be used by the Department to estimate the required security bond for the claim.

A MOP may be approved for a period of up to five years to coincide with the term of the mineral claim, or an agreed lesser period.

Under Part 5 of the *Environmental Planning & Assessment Act 1979*, the Department has a duty to consider the environmental impact of an activity. Before a Class G claim can be granted, the Department must examine and take into account all matters affecting, or likely to affect, the environment by the granting of the claim and the approval of the activities to occur in it. The information provided in the MOP enables that assessment to be undertaken. If insufficient information is provided, the Department will either request further information or may reject the application.

All applicants for a Class G claim should contact an Inspector Environment prior to the completion and submission of a MOP.

Plans

Plans may use an existing base or aerial photograph with activity areas and features drawn by hand, provided there is sufficient accuracy and detail for the Department to review the information shown. If contours are not shown, slopes and drainage lines must be clearly marked. The scale should show sufficient detail to review operations and rehabilitation. For most Class G Mineral Claims, A3 or A4 or sized plans will be appropriate. Also provide photographs and diagrams where appropriate. All plans must show:

* the name of the claim holder
* a graphical scale
* boundaries of claims
* cadastral information (land ownership boundaries)
* a title block showing the date of preparation of the plan, title and number
* the signature of the person responsible for the plan.

Plan 1: Existing Environment

Show the state of the site at the commencement of the MOP period including:

* site access and relationship to surrounding localities
* natural features including swamps, rivers, creeks, streams or watercourses
* existing non-mining developments including roads, fences, transmission lines
* location of significant vegetation features, e.g. mature trees
* vegetation and land use boundaries; eg cropping, pasture, forest, undisturbed flora/fauna habitat
* derelict mines/mined land from activities which occurred before the grant of the present mine lease
* adjoining claims
* neighbouring residences
* extent of existing mining activity and related disturbances (stockpiled overburden, opal dirt, soil, water management features, rehabilitated areas, shafts, open cuts, drill holes).

Plan 2: Proposed Operations

Show the proposed state of the site at the maximum state of disturbance or the end of the MOP period including:

* Open cut dimensions, benching, haul road location
* location of opal dirt, overburden and soil stockpiles, felled timber storage areas
* temporary buildings, fuel storage & refuelling areas, machinery storage areas
* constructed drainage lines, water management and erosion control structures, water monitoring sites
* location of access roads, fencing, safety bunds.

Note: Plan 2 may use Plan 1 as its base.

Plan 3: Final Rehabilitation

Show the anticipated state of the site following rehabilitation when the lease is being prepared for title relinquishment including:

* the slope and shape of rehabilitated land
* vegetation on rehabilitated land, and boundaries of vegetation types
* natural features including swamps, rivers, creeks, streams or watercourses
* pre mining non mining developments including roads, fences, residences
* adjoining mining activities which occurred before the grant of the present mine lease
* boundaries and slopes of disturbed and rehabilitated land
* vegetation type and land use boundaries of disturbed and undisturbed land
* post mining land use capability of undisturbed and rehabilitated land
* constructed drainage lines, water management and erosion control structures;
* remaining voids/pits and remaining disturbed land
* all mine related infrastructure to remain on site after mine closure
* fences, bunds and other public, fauna/ and stock safety features.

*Where mining will be completed during the MOP period, plans 2 and 3 may be combined.*

1. Mining Operations Plan
   1. Applicant details

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| --- | --- | --- | --- |
| Applicant(s) name (all names to be included) | |  | |
| Mineral claim ID |  | Expiry |  |
| Field name |  | | |
| Name of mine operator (if different) | |  | |
| Postal address |  | | |
| Phone |  | Email |  |
| Western lands property |  | Lessee |  |
| Comments: | | | |

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| --- | --- | --- | --- |
| Signature: Claim holder #1 | | Signature: Claim holder #2 | |
|  | |  | |
| Name |  | Name |  |
| Date |  | Date |  |

## Proposed mining activities

Describe the operations and the methods to be used for any of the following activities which are proposed during the MOP period. Descriptions should supplement information shown on Plan 2.

Provide a brief description of the mining proposal.

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**Site access arrangements:** Outline how the site will be accessed, i.e. roads – existing or will new roads need to be constructed.

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**Machinery to be used:** List the types of machines that are proposed to be used to undertake all stages of the mining, processing and rehabilitation activities:

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**Land Preparation Plan (soil stripping, stockpiling, vegetation clearing, salvage):** Approximate volume of soils to be stripped and stored for rehabilitation.

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**Overburden Extraction Plan:** Describe how overburden will be removed and where stored.

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**Mining Plan:** Describe how mining of opal bearing material will be undertaken.

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**Processing Plan:** Where will opal dirt be washed? Will silt be returned to the mined area?

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**Production and waste estimates**

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| Item | Unit | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 |
| Stripped top soil | m3 |  |  |  |  |  |
| Overburden | m3 |  |  |  |  |  |
| Opal dirt | m3 |  |  |  |  |  |

## Existing environment and proposed management

*The following information should supplement that provided in Plan 1.*

**Topography and drainage:** Describe the topographical features of the general area of the proposed activity including slope of land, existence of gullies and temporary or permanent water bodies. Known local water flow paths during rainfall or flooding should also be identified.

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**Soils:** Describe the site soils in terms of their thickness and suitability for rehabilitation.

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**Soil erosion and pollution:** Describe the measures proposed to prevent soil erosion and pollution occurring.

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**Existing land use and improvements:** Describe the existing land use and any land use improvements as roads, bores, fences or buildings.

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Identify any residences, camps. Identify any homesteads, residences or camps in the vicinity that could be impacted by noise or dust arising from the proposed operations.

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Outline the measures that will be used to minimise noise and dust impacts on people living in the vicinity.

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**Cultural heritage:** The MOP must identify whether Aboriginal objects are likely to be in the area of the proposed activity. The *Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW* [[1]](#footnote-1) should be consulted to ascertain the likelihood of objects occurring. Copies of an Aboriginal Heritage Information Management System (AHIMS) search must be provided. If aboriginal objects occur or are likely to occur, further assessment will be required to accompany this application.

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**Vegetation:** Describe the vegetation types and cover in the general area of the proposal in terms of dominant vegetation type. How will this operation impact the vegetation of the area? Be specific about the area to be cleared/number of trees to be removed.

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**Threatened species impacts:** The MOP must identify whether or not threatened species, populations and/or ecological communities are likely to occur in the area affected by the activity [[2]](#footnote-2). If threatened species do, or are likely to occur within the activity area, then the applicant must conduct an Assessment of Significance as required under s.5A of the *Environmental Planning and Assessment Act 1979* (Refer to Attachment A). The study area should extend as far as is necessary to take all potential impacts into account.

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## Rehabilitation and mine closure

Describe proposed rehabilitation methods to be used for each rehabilitated area. Descriptions should supplement information shown on the plans. Include, where relevant:

* rehabilitated landform, profile, and slopes
* subsoil and topsoil cover thicknesses
* vegetation species, plant/seed density, soil treatment, method of establishment
* agreed post mining land use, or land use options.

What is the proposed post mining land use?

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What are the proposed post mining landform objectives?

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Outline the post mining rehabilitation activities that you will undertake to achieve the above objectives.

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What post rehabilitation monitoring activities are required?

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## Declaration

I declare that to the best of my knowledge, the information provided in this form, and any attachment to this form, is true and correct in every detail.

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| Claim holder #1 | | | |
| Name |  | | |
| Signature |  | Date |  |

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| --- | --- | --- | --- |
| Claim holder #2 | | | |
| Name |  | | |
| Signature |  | Date |  |

Note: Giving false or misleading information is a serious offence under section 268 of the Work Health and Safety Act 2011, and Part 5A of the Crimes Act 1900.

## Submitting the form

* **By email:** Send an electronic copy of the form including any attachments to [nswresourcesregulator@service-now.com](mailto:nswresourcesregulator@service-now.com)
* **By mail:** Mail your form and any attachments to NSW Resources Regulator, Compliance Coordination Unit, PO Box 344, Hunter Regional Mail Centre, NSW, 2310
* **In person:** The Lightning Ridge office of Mining, Exploration and Geoscience, Regional NSW, Lot 60 Morilla Street, Lightning Ridge, NSW.

This form may not be submitted to other offices of NSW Planning, Industry and Environment or Regional NSW.

# Attachment A – Assessment of significance

Threatened species impact assessment is an integral part of environmental impact assessment. The objective of s.5A of the *Environmental Planning and Assessment Act 1979* (EP&A Act), the assessment of significance, is to improve the level of consideration given to threatened species, populations and ecological communities, and their habitats in the assessment of applications submitted by industry.

Certain factors need to be considered when assessing whether an action, development or activity is likely to significantly affect threatened species, populations or ecological communities, or their habitats.

The assessment of significance is applied to species, populations and ecological communities listed on Schedules 1, 1A and 2 of the *Threatened Species Conservation Act 1995* (TSC Act) and Schedules 4, 4A and 5 of the *Fisheries Management Act 1994* (FM Act). The applicant/proponent should develop a list of threatened species, populations and ecological communities which may be affected directly or indirectly by the proposed action, development or activity. Adequate reasons should be provided to show how the list was derived.

All species likely to occur in the area affected by the application and known to use that type of habitat, should be considered. However, a species does not have to be considered as part of the assessment of significance if it can be shown the species:

* does not occur in the study area, or
* will not use on-site habitats on occasion, or
* will not be influenced by off-site impacts of the proposal.
  1. The factors of assessment

1. in the case of a threatened species, whether the action proposed is likely to have an adverse effect on the life cycle of the species such that a viable local population of the species is likely to be placed at risk of extinction.

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1. in the case of an endangered population, whether the action proposed is likely to have an adverse effect on the life cycle of the species that constitutes the endangered population such that a viable local population of the species is likely to be placed at risk of extinction.

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1. in the case of an endangered ecological community or critically endangered ecological community, whether the action proposed:
   * 1. is likely to have an adverse effect on the extent of the ecological community such that its local occurrence is likely to be placed at risk of extinction, or
     2. is likely to substantially and adversely modify the composition of the ecological community such that its local occurrence is likely to be placed at risk of extinction.

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1. in relation to the habitat of a threatened species, population or ecological community:
   * 1. the extent to which habitat is likely to be removed or modified as a result of the action proposed, and
     2. whether an area of habitat is likely to become fragmented or isolated from other areas of habitat as a result of the proposed action, and
     3. the importance of the habitat to be removed, modified, fragmented or isolated to the long-term survival of the species, population or ecological community in the locality.

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1. whether the action proposed is likely to have an adverse effect on critical habitat (either directly or indirectly).

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1. whether the action proposed is consistent with the objectives or actions of a recovery plan or threat abatement plan.

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1. whether the action proposed constitutes or is part of a key threatening process or is likely to result in the operation of, or increase the impact of, a key threatening process.

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1. <https://www.heritage.nsw.gov.au/search-for-heritage/aboriginal-heritage-information-management-system/> [↑](#footnote-ref-1)
2. <https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species> [↑](#footnote-ref-2)