MINE APPLICATION GUIDELINE

Specific development application requirements for State Significant mining and extractive industry developments under the *Environmental Planning and Assessment Act 1979*

DRAFT MAY 2015

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PRELIMINARY

Purpose

This guideline has been prepared to assist proponents of mining and extractive industry ('mining') projects in the preparation of development applications under the State significant development provisions of the *Environmental Planning and Assessment Act 1979* (the Act).

This guideline relates to the contents of a Preliminary Environmental Assessment (PEA) and Environmental Impact Statement (EIS). In particular, it is intended to ensure applicants clearly describe:

1. what the consent authority is being asked to approve (project description);
2. the strategic context for the development;
3. what choices and trade-offs have been made (and why) in the process of designing a mining development (project rationale);
4. environmental, social and economic impacts (as a separate component to the project description); and
5. what consultation will be or has been undertaken in preparing the development application.

Background

The majority of large mining developments in New South Wales (NSW) are assessed and determined under the State Significant Development (SSD) provisions (Division 4.1 of Part 4) of the Act. Smaller quarries and non-coal mines require development consent under Part 4 of the Act.

Section 78A of the Act requires an EIS to be submitted in support of development applications for mining projects. The proponent is required to apply for the Secretary's Environmental Assessment Requirements (SEARs) prior to preparing an EIS. In practice, the request for SEARs is accompanied by a PEA, which informs the development of the SEARs.

The information supplied in the PEA is further developed and expanded on in the EIS, consistent with requirements set out in the SEARs.

This guideline includes the requirements of the NSW Government for mining applications. Some mining projects may also require a site verification certificate[1] or gateway certificate[2] under the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007* (Mining SEPP). The gateway assessment is undertaken by an independent expert panel – the Mining and Petroleum Gateway Panel – that assesses the proposal against specific criteria set out in the Mining SEPP.

The mine planning process

Consistent with the principles of ecologically sustainable development, proper consideration must be given to potential environmental, social and economic impacts during the mine planning process. This requires applicants to ensure that the development of a preferred mine design addresses:

- the full lifecycle of the mine from construction and operation to

[1] The requirements for site verification certificates are set out at majorprojects.planning.nsw.gov.au/application/SVC.

[2] The requirements for the Gateway Process are set out in the Guideline for Gateway Applicants.

rehabilitation and lease relinquishment;

- potential environmental and community impacts; and
- consideration of project options and alternatives to avoid or minimise negative impacts.

An effective mine planning process should:

- reduce the potential for environmental and community impacts which exceed relevant approval criteria;
- reduce levels of public concern;
- avoid potential delays in the approval process; and
- optimise the sustainability of post-closure land use outcomes.

Applicants should adopt an iterative approach to developing the preferred mine design, with regular reviews based on:

- results of ongoing exploration and technical feasibility studies;
- consideration of effective resource recovery;
- evaluation of the project viability and the economic benefits of developing the resource;
- results of baseline environmental studies (e.g. identification of significant flora/fauna species or areas of particular cultural significance);
- outcomes of environmental assessment studies (e.g. site water balance or noise/air quality modelling);
- consideration of a range of climatic scenarios;
- consideration of cumulative impacts with other nearby projects and proposals;
- whether environmental, social and economic impacts can be avoided, minimised or adequately mitigated; and
- ongoing consultation with key stakeholders, including regulators and the community.

Avoidance, minimisation and mitigation measures should be the primary strategies for managing the potential adverse impacts of a development. Early adoption of these strategies can reduce additional cost and delays during the assessment and determination process.

The applicant should consider the capacity for mining to coexist with surrounding existing and proposed land uses. Factors to consider include:

- the characteristics of the surrounding environment and community and their sensitivity to impacts (including competing land uses);
- the characteristics of the potential impacts, including their predictability;
- potential future mine expansions; and
- proposed impact minimisation and mitigation strategies and their effectiveness and reliability.

Appropriate separation distances provide confidence that existing land uses can be maintained. Early consideration may need to be given to acquiring sufficient land to provide adequate separation from nearby sensitive land uses to minimise impacts and ensure long-term compliance with air quality, noise or water quantity and quality requirements.

Careful consideration should be given to both the location of the primary development and the suitability of

sites selected for ancillary activities and infrastructure, including processing plants, pipelines and transportation corridors.

Applicants should give consideration to:

- locating linear ancillary infrastructure within existing disturbance corridors;
- using topographical features to reduce potential amenity impacts (for example noise impacts); and
- sharing infrastructure with nearby operations where appropriate commercial agreements can be reached.

The project needs to be outlined in its entirety so that the interactions between various components of a mine plan and the reasoning behind design decisions are clearly articulated in the development application. This will ensure that decision makers understand what choices or trade-offs have been made and why.

SPECIFIC REQUIREMENTS FOR SSD MINING DEVELOPMENTS

The development application process for State significant mining requires the submission of two key documents. These are the:

- Preliminary Environmental Assessment (PEA); and
- Environmental Impact Statement (EIS).

Preliminary Environmental Assessment

A PEA is required to inform the Government's development of project-specific Secretary's Environmental Assessment Requirements (SEARs) for a development application.

A PEA is to be presented in summary and predominantly qualitative form, avoiding lengthy and overly technical discussion. A PEA is not intended to involve a detailed analysis of a proposal. For this reason, the format and layout should be relatively simple. Reference can be made to preliminary assessments and other studies by inclusion of summary result tables etc. rather than incorporating this information in its entirety.

A PEA will be made available to all stakeholders, including the community, and is intended to enable stakeholders to gain a clear understanding of what is proposed.

The length and format of a PEA will depend on the proposal, but as a guide, a PEA for a complex proposal can be effectively presented in a document of 50 pages, including an executive summary.

Environmental Impact Statement

In contrast to a PEA, an EIS is required to inform the consent authority's decision as to whether a project should be approved (through the grant of a development consent, environment protection licence and mining lease).

A robust EIS will ~~quantify~~ describe both the existing environment and potential environmental impacts to a high degree of certainty.

There is no restriction on the length of an EIS.

The mining-specific requirements for a PEA and an EIS are set out under the following headings.

1 PROJECT SUMMARY

The purpose of this section is to assist applicants in providing a concise summary of the key aspects of the proposed development.

Mining-specific PEA requirements

The PEA should include a table which summarises the key attributes of the project (similar to the example provided at Table 1). The content and level of detail provided in this table should be consistent with the level of project certainty at the time of submission of the PEA.

Mining-specific EIS requirements

The EIS should include a project summary table similar to the example provided at Table 1, but completed to a level of specificity and detail appropriate to the nature and extent of the proposed development.

2 PROJECT DESCRIPTION

2.1 Development description

The purpose of this section is to assist applicants in clearly and accurately defining what is being proposed as part of the development application.

Mining-specific PEA requirements

The PEA should provide a clear and concise summary of the proposed mine design and project as a whole~~. It should describe the types of activities that will be undertaken during each stage of the development~~, and include:

- A description of the types of activities that will be undertaken during each stage of the development;
- the objectives of the development; and
- an outline of the nature, scale and extent of the development.

Mining-specific EIS requirements

The EIS should include a complete description of the development, to a level of specificity and detail appropriate to the nature and extent of the proposed development. For example, this would include detailed information in relation to the elements identified ~~for~~ in the PEA as well as details such as:

- The nature and extent of the development, including:
  - *mine location and extent;*
  - *mine design and layout;*
  - *mining method;*
  - *infrastructure and mining plant;*
  - *processing/beneficiation activities;*
  - *product transport; and*
  - *the intended post-mining land use.*
- The intended scale of the development, including:
  - *expected life of the project;*
  - *production rates;*
  - *capital expenditure;*
  - *employment (approximate number of FTE);*
  - *export revenue; and*
  - *projected royalties.*
- Workforce:
  - *number of workers;*
  - *workforce source (local/non-local);*
  - *accommodation requirements and availability;*
  - *number of shifts;*
  - *shift change times; and*
  - *workforce transport requirements (FIFO/traffic implications).*
- Waste streams:

- *type (waste rock, tailings, tyres etc);*
- *production rate;*
- *fate;*
- *breakdown products; and*
- *any specific management requirements.*

The EIS should also include a tabulated summary of the environmental assessment requirements identified in the SEARs, and references to where these have been addressed in the EIS.

2.2 Ancillary developments

The purpose of this section is to assist the applicant in identifying any related developments that are NOT being proposed as part of the subject development application but are necessary to support that development.

Mining-specific PEA requirements

The PEA should outline:

- any ancillary developments (e.g. processing, transport, pipelines etc.); and
- what approval pathway will be sought for those ancillary developments.

The level of detail in this section should be appropriate to the level of project certainty at the time of submission of the PEA.

Mining-specific EIS requirements

The EIS should include a complete description of any ancillary developments and their approval requirements to a level of specificity and detail appropriate to the nature and extent of the proposed development.

2.3 Development schedule

The purpose of this section is to assist applicants in ensuring that the timing of key aspects of the proposed development are clearly and accurately defined as part of the development application.

Mining-specific PEA requirements

The PEA should outline a conceptual schedule for the proposed development.

The level of detail in this section should be appropriate to the level of project certainty at the time of submission of the PEA.

Mining-specific EIS requirements

The EIS should include a complete description of, and schedule for, each key phase of the development, including:

- construction;
- operation;
- rehabilitation; and
- closure

2.4 Management commitments

The purpose of this section is to assist applicants in ensuring that any management commitments to avoid, minimise or mitigate potential impacts are clearly and accurately defined as part of the development application.

Mining-specific PEA requirements

The PEA should outline proposed conceptual mitigation strategies for managing the potential adverse impacts of the development.

The level of detail in this section should be appropriate to the level of project certainty at the time of submission of the PEA.

Mining-specific EIS requirements

The EIS should set out in detail any commitments to avoid, minimise or mitigate potential impacts of the project. These commitments will be considered by the consent authority to form part of the project.

The information in this section should be a complete description to a level of specificity and detail appropriate to the nature and extent of the proposed development.

2.5 Mapping requirements

The purpose of this section is to assist applicants in ensuring that the physical layout of the proposed development over time is clearly and accurately defined as part of the development application.

Note that GIS mapping requirements had not been finalised as at the date this guideline was drafted and may be specified separately.

3 STRATEGIC CONTEXT

3.1 Target resource

The purpose of this section is to assist applicants in ensuring that the resource targeted by the proposed development is clearly and accurately defined as part of the development application.

Mining-specific PEA requirements

The PEA should provide summary information on the characteristics of the resource. It should also demonstrate effective and efficient recovery of the resource within land use constraints. This information may include:

- the specifics of any title held over the area under the *Mining Act 1992*;
- exploration methods, geological characteristics, constraints on resource recovery, recoverable resource;
- whether or not the development is likely to have a significant impact on current or future extraction or recovery of minerals, petroleum or extractive materials, including indication of resource sterilised or not included in order to minimise impacts to sensitive areas;
- the relationship of the resource to any existing mine; and
- whether other industries or projects may be dependent on the development of the resource.

The level of detail in this section should be appropriate to the level of project certainty at the time of submission of the PEA.

Mining-specific EIS requirements

The EIS should include the information required for a PEA above, but to a degree of specificity and detail appropriate to the nature and extent of the proposed development.

3.2 Regional context

The purpose of this section is to assist applicants in ensuring that local and regional sensitivities / constraints on the proposed development are clearly and accurately described as part of the development application.

Mining-specific PEA requirements

The PEA should outline the location of the proposed development in relation to relevant local and regional features using maps and design plans where relevant (see also Section 2.5). This section should also identify relevant:

- land use constraints;

- biophysical, hydrological, environmental and heritage constraints; and
- economic considerations.

Mining-specific EIS requirements

The EIS should include the information required for a PEA above, but to a level of specificity and detail appropriate to the nature and extent of the proposed development. This will include:

- land use constraints:
  - *identification of the existing land use;*
  - *proximity to existing urban areas and settlements and future growth areas;*
  - *competing rural land uses/proximity to sensitive land uses;*
  - *potential competing ~~future or emerging~~ industries;*
  - *proximity to competing resources;*
  - *drinking water storage areas or town water supplies;*
  - *water supply constraints including access to water/competing water users; and*
  - *practical constraints on mining operations such as disposal of incidental water;*
- biophysical, environmental and heritage constraints:
  - *protected areas and areas of high environmental value;*
  - *water sources for catchments, rivers and aquifers;*
  - *matters of national environmental significance identified at regional scale; and*
  - *other biophysical or heritage features of significance mapped or known areas at regional or subregional scale;*
- economic considerations:
  - *availability and proximity to existing mining-related or dependent infrastructure and utilities;*
  - *proximity to competing resources;*
  - *proximity to markets; and*
  - *proximity to downstream processing or other related / dependent industries.*

3.3 Permissibility and strategic planning

The purpose of this section is to assist applicants in ensuring that the permissibility of the proposed development is clearly and accurately defined as part of the development application.

Mining-specific PEA requirements

The PEA should outline relevant State and Commonwealth legislation for the development. In particular, the PEA must consider whether the proposal is:

- ~~permissible under Part 2 of the~~ Mining SEPP; and
- State significant development under the *State Environmental Planning Policy (State and Regional Development) 2011*.

The PEA must also consider the matters set out under Parts 1, 3 and 4AA of the Mining SEPP and the potential for significant impacts on water resources that may require assessment by the Independent Expert Scientific Committee under the *Environment Protection and Biodiversity Conservation Act 1999* (Cth).

The level of detail in this section should be appropriate to the level of project certainty at the time of submission of the PEA.

Comment [NA1]: Provide examples of sensitive land uses.

Comment [NA2]: Provide examples.

Comment [NA3]: Unclear what is required.

Mining-specific EIS requirements

The EIS should include the information required for a PEA above, but to a degree of specificity and detail appropriate to the nature and extent of the proposed development.

4 PROJECT RATIONALE

The purpose of this section is to assist applicants in ensuring that the reasoning behind the preferred form of the proposed development is clearly and accurately explained as part of the development application.

The intention is that the application brings together the various interconnected components of the proposal and articulates the rationale for the project as a whole so that stakeholders understand what tradeoffs have been made and why.

Mining-specific PEA requirements

The PEA should include an outline of the rationale behind key mine design decisions, for example:

- mining method; and
- setbacks from sensitive receivers.

Mining-specific EIS requirements

The EIS should address the following to a level of specificity and detail appropriate to the nature and extent of the proposed development:

- how has the nature of the resource and geology influenced the extraction method and mine design?
- what other constraints to mining the resource are there and how have they influenced the mine design?
- why the proposed extraction method was selected (e.g. truck and shovel, dragline etc.)?
- how have the costs and benefits of alternative mine extents and mining methods been considered and balanced against resource recovery, project viability and other economic, environmental and social factors?
- What consequences does the preferred extraction method have for the mine layout, operation and impacts. For example:
  - *pit size and orientation;*
  - *longwall width;*
  - *waste rock volume and dump layout;*
  - *blasting;*
  - *fleet selection and noise/dust;*
  - *access requirements (area required to be exposed for operational reasons);*
  - *the final landform (e.g. final voids); and*
  - *rehabilitation scheduling.*
- mining plant:
  - *why was the proposed mining plant selected?*
  - *is it best in class with respect to water use, noise, dust and exhaust emissions? If not, why not? What effect does this have on setbacks etc?*
- rehabilitation:
  - *what alternative concepts for the post-mining landform design and rehabilitation were considered?*
  - *how were the costs and benefits of these alternatives evaluated and what were the outcomes of this?*
  - *why was the preferred approach chosen?*
- impact avoidance, minimisation and mitigation strategies:

Comment [NA5]: Suggest deletion. This is essentially the same as the first dot point phrased from a different perspective.

Comment [NA4]: Could this refer to the constraints identified in Section 3.2?

  - *how were impacts avoided?*
  - *what strategies were considered?*
  - *how were the costs and benefits of these alternatives evaluated and what were the outcomes of this?*
- change drivers:
  - *is the development likely to include multiple phases, which may require further approval?*
  - *identify any drivers which are reasonably likely to result in changes to the mine design or mining operations during the life of the project (e.g. market conditions leading to lower than forecast production rates).*
  - *identify how the mine design or mining operations may be influenced by these drivers (e.g. changes to mine sequencing or rehabilitation timing).*
  - *describe the sensitivity of the mine design and operations to these drivers.*

5 ENVIRONMENTAL IMPACT ASSESSMENT

The purpose of this section is to assist applicants in ensuring that the potential environmental impacts of the proposed development are clearly and accurately identified and assessed as part of the application.

Mining-specific PEA requirements

The PEA should:

- outline key environmental issues and land use constraints; and
- outline the possible significance and acceptability of potential impacts and whether the project is likely to be viable within these constraints.

The level of detail in this section should be appropriate to the level of project certainty at the time of submission of the PEA.

Mining-specific EIS requirements

In addition to any specific environmental impact assessment requirements set out in Schedule 2 of the *Environmental Planning and Assessment Regulation 2000* and elsewhere, the EIS should include the information required for a PEA above, but to a degree of specificity and detail appropriate to the nature and extent of the proposed development.

Comment [NA6]: Suggest delete. Any further approvals would be subject to their own development application.

6 CONSULTATION

The purpose of this section is to assist applicants in ensuring that the level and extent of consultation about the proposed development is clearly and accurately defined as part of the development application.

The applicant is expected to conduct an appropriate level of consultation with potentially impacted stakeholders. This may include, but is not limited to:

- affected landholders and businesses;
- local council(s);
- local communities;
- relevant regulators; and
- other relevant agencies.

Mining-specific PEA requirements

The PEA should include:

- an outline of the consultation strategy for the project; and
- a statement of key strategic issues raised or likely to be raised by stakeholders and any proposed responses.

Comment [NA8]: This requires second guessing.

The level of detail in this section should be appropriate to the level of project certainty at the time of submission of the PEA.

Comment [NA7]: If a project was not considered likely to be viable with the adoption of safeguards likely to be necessary to make impacts acceptable it would not be progressed, even to this stage.

Mining-specific EIS requirements

The EIS should include the information required for a PEA above, but to a degree of specificity and detail appropriate to the nature and extent of the proposed development.

Table 1 – Project summary for use at PEA and EIS stages

Project Component	Summary of the Project (example)
Mining Method	Open cut mining in three pit areas covering approx. 1,000 hectares.
Resource	Mining of A1, B1 and B2 Seams to a depth of 200 m.
Disturbance Area	Disturbance of approximately 1,200 hectares with no more than 600 hectares disturbed or unvegetated at any time.
Annual Production	Run-of-mine coal production up to 5 million tonnes per annum.
Mine Life	Approximately 21 years of mining.
Total Resource Recovered	Up to 95 million tonnes of run-of-mine (ROM) coal.
Beneficiation	Processing at a CHPP of up to 5 million tonnes p.a. of ROM coal.
Management of Mining Waste	Emplacement of waste rock in in-pit and out-of-pit waste rock emplacements up to a height of approximately 150 m AHD.
General Infrastructure	Access roads, electricity supply and distribution, rail loop, CHPP, train loading infrastructure, ROM coal stockpiles, coal handling equipment, diesel storage, administration, workshop, stores and ablution buildings, heavy vehicle servicing, parking and washdown facilities.
Product Transport	Transport of product coal by train with an average of 3 trains per day and a maximum of five trains per day during peak periods.
Water Supply and Balance	*[This section should outline:* • *consideration of relevant policies and guidelines* • *sources and security of water supply and contingency options* • *all defined water sources under relevant water sharing plans* • *water use requirements on site (including a detailed water balance)* • *any off-site water transfers and discharges]*
Water Management	*[This section should outline how water will be managed, including, but not limited to:* • *clean water (e.g. stormwater runoff from undisturbed surrounding land)* • *contaminated runoff (e.g. from waste rock emplacements)* • *pit water (e.g. groundwater seepage)* • *wastewater products (e.g. from processing materials)* • *reuse (e.g. irrigation, dust control)* • *potential discharges (including location(s)) and practical options to avoid discharge.]*
Operational Workforce	Approximately 250 people (including contractor personnel).
Hours of Operation	Open cut mining, coal processing and rail load-out 24 hours per day, seven days per week.
Key Environmental Impacts and Mitigation Measures	*[Highlight the major potential impacts and measures proposed to address those impacts, including:* • *air impacts* • *noise impacts* • *waste production and management]*
Capital investment Value	$500 million