

Department of the Sustainability, Environment, Water, Population and Communities – requirements for environmental assessment

Section 75F(3) of the NSW *Environmental Planning and Assessment Act 1979*

The Commonwealth Minister for Sustainability, Environment, Water, Population and Communities has determined the Watermark Coal Project (EPBC 2011/6201), involving the proposed construction and operation of an open cut coal mine approximately 35 km south east of Gunnedah in New South Wales, to be a controlled action under section 75 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

The controlled action is likely to have a significant impact on the EPBC Act listed critically endangered ecological community White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Box-Gum Woodland) and EPBC Act listed migratory and threatened species including the Regent Honeyeater (*Anthochaera phrygia*). Significant impacts are also considered possible for a number of other species and communities protected by the EPBC Act including, but not limited to, those listed in Appendix A.

In accordance with the one-off accredited assessment process for this project, the environmental assessment of the impacts of the controlled action must be assessed under the *Environmental Planning and Assessment Act 1979* (EP&A Act). Pursuant to section 75F(3) of part 3A of the EP&A Act the Director-General is required to notify the proponent of these requirements.

The assessment should include enough information about the controlled action and its relevant impacts to allow the Commonwealth Minister for Sustainability, Environment, Water, Population and Communities to make an informed decision whether or not to approve the controlled action under the EPBC Act.

The following assessment requirements are to be integrated into the assessment requirements of the EP&A Act. The following matters in the EPBC Act and schedule 4 of the *Environment Protection and Biodiversity Conservation Regulations 2000* should be considered.

General information

1. The background of the action, including:

- a. the title of the action;
- b. the full name and postal address of the designated proponent;
- c. a clear outline of the objective of the action;
- d. the location of the action;
- e. the background to the development of the action;
- f. how the action relates to any other actions (of which the proponent should reasonably be aware) that have been, or are being, taken or that have been approved in the region affected by the action;
- g. the current status of the action; and
- h. the consequences of not proceeding with the action.

Description of the controlled action

2. A description of the action, including:
 - a. all the components of the action;
 - b. the precise location of any works to be undertaken, structures to be built or elements of the action that may have relevant impacts;
 - c. how the works are to be undertaken and design parameters for those aspects of the structures or elements of the action that may have relevant impacts;
 - d. the timing and duration of the works to be undertaken; and
 - e. to the extent reasonably practicable, a description of any feasible alternatives to the controlled action that have been identified through the assessment, and their likely impact, including:
 - i. if relevant, the alternative of taking no action;
 - ii. a comparative description of the impacts of each alternative on the matters protected by the controlling provisions for the action;
 - iii. sufficient detail to clarify why any alternative is preferred to another.

Description of the existing environment

3. A description of the existing environment of the proposal location and the surrounding areas that may be affected by the action, including:
 - a. surveys using accepted methodology for targeting listed threatened species, ecological communities and their respective habitat, including but not limited to OEH's *Survey and assessment guidelines* (2009), available at: <http://www.environment.nsw.gov.au/threatenedspecies/surveymethodsfauna.htm> and the Department of Sustainability, Environment, Water, Population and Communities (DSEWPaC) species-specific survey guidelines for nationally threatened species, available at: <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>

In addition to the requirements outlined in OEH's *Survey and assessment guidelines* (2009) and DSEWPaC survey guidelines for relevant species, the following must also be included:

- b. a description of the distribution and abundance of threatened species and ecological communities, as well as suitable habitat (including breeding, foraging, roosting habitat, habitat critical to the survival of threatened species) within the site and in surrounding areas that may be impacted by the proposal; and
 - c. the regional distribution and abundance of suitable and potential habitat surrounding the site.

Description of the relevant impacts of the controlled action

4. An assessment of all relevant impacts³ with reference to the *EPBC Act Policy Statement 1.1 Significant Impact Guidelines Matters of National Environmental Significance* (2009) that the controlled action has, will have or is likely to have on relevant threatened species and/or threatened ecological communities (s18 and s18A), and migratory species (s20 and s20A). Information must include:

³ The term "relevant impact" is defined in section 82 of the EPBC Act.

- a. a description of the relevant impacts of the action on matters of national environmental significance;
 - b. a detailed assessment of the nature and extent of the likely short term and long term relevant impacts;
 - c. a statement whether any relevant impacts are likely to be unknown, unpredictable or irreversible;
 - d. analysis of the significance of the relevant impacts;
 - e. notwithstanding mitigation and offset, details on the cumulative impacts on matters of National Environmental Significance at a regional scale; and,
 - f. any technical data and other information used or needed to make a detailed assessment of the relevant impacts.
5. A description of the relevant impacts on the ecological communities should include an analysis of the vegetation condition on the site, as well as the methods by which this was determined. It should also include direct, indirect, cumulative and facilitative impacts on the:
- a. extent of the ecological community, including connectivity with other areas of the ecological communities;
 - b. quality or integrity of the ecological community including, but not limited to, assisting invasive species, that are harmful to the ecological communities to become established; or causing regular mobilisation of fertilisers, herbicides or other chemicals or pollutants into the communities which kill or inhibit the growth of species in the ecological community;
 - c. EPBC Act listed species in, or in any way dependent upon, the ecological community;
 - d. composition of the ecological community;
 - e. habitat present on site critical to the survival of the ecological community⁴; and
 - f. abiotic (non-living) factors (such as water, nutrients or soil) necessary for the ecological community survival, for example increasing groundwater levels or making the site wetter, soil disturbance or substantial alteration of surface water drainage patterns.

These impacts should be described for the construction and operation phases of the controlled action.

This information should be provided with reference to the ecological community as it is defined and listed under the EPBC Act.

6. Where there is a potential habitat for EPBC Act listed species ([Appendix A](#)), surveys must be undertaken. These surveys must be timed appropriately and undertaken for a suitable period of time by a qualified person⁵. A subsequent description of the relevant impacts on such EPBC Act listed species should include, inter alia, direct, indirect, cumulative and facilitative impacts on the:

⁴ "habitat critical to the survival of a species or ecological community" refers to areas that are necessary:

- for activities such as foraging, breeding, roosting, or dispersal;
- for the long-term maintenance of the species or ecological community (including the maintenance of species essential to the survival of the species or ecological community, such as pollinators);
- to maintain genetic diversity and long term evolutionary development; or
- for the reintroduction of population or recovery of the species or ecological community.

Such habitat may be, but is not limited to: habitat identified in a recovery plan for the species or ecological community as habitat critical for that species or ecological community; and/or habitat listed on the register of Critical Habitat maintained by the Minister under the EPBC Act.

⁵ Where available, species-specific survey guidelines can be obtained on the department's *Species Profile and Threats Database*: <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>

- a. population of the species at the site;
- b. area of occupancy of the species;
- c. habitat critical to the survival of the species;
- d. breeding cycle of the population; and
- e. availability or quality of habitat for the species.

If an endangered ecological community, threatened or migratory species listed at Appendix A is not believed to be present on the proposed site, detailed information must be included in the Environmental Assessment Report to provide certainty that this community will not be impacted.

Information relating to water

The Environmental Assessment Report must consider any water related impacts associated with the proposed project on MNES.

- 7. How the proponent will comply with all relevant Commonwealth, state and local government environment laws and policies pertaining (either directly or indirectly) to water quality management;
- 8. A description and maps of all surface water and groundwater sources relevant to the Project, and a delineation of their associated NWQMS environmental values;
- 9. The results of surface water and groundwater hydrological assessments, including an assessment of hydrological interactions where water sources are connected;
- 10. Hydro-geological reports;
- 11. A geological map showing fault lines;
- 12. A topographical map;
- 13. Hydrological modelling information;
- 14. Baseline data and information on current water quality, including reference and test site data. Where this information does not exist, there should be an undertaking to carry out the necessary investigations in order to provide the required baseline data, including a description of how these investigations will be carried out (methodology and timeframe);
- 15. Data and information on proposed discharge water quality, including timing of discharges, concentrations, and loads of toxicants and stressors;
- 16. Water quality issues, including planning, monitoring and management informed by the National Water Quality Management Strategy (<http://www.environment.gov.au/water/policy-programs/nwqms>):
 - a. Sewage treatment; and,
 - b. Water way crossings;
- 17. Modelling showing the cumulative environmental impacts of the action; and
- 18. A comprehensive water quality risk management and monitoring plan for the project, including management triggers to detect potential issues in a timely manner and to avoid, minimise or ameliorate adverse impacts. This should include:
 - a. Identification and description of all potential water quality hazards;
 - b. Water quality risks should be considered and, where possible, quantified;
 - c. Cumulative effects, including environmental impacts, should be considered;

- d. Threshold trigger and/or guideline values that protect MNES should be considered;
 - e. Biological as well as chemical monitoring and assessment;
 - f. Statistical analysis such as data averages, standard deviation and number of samples;
 - g. Test and reference site locations;
 - h. Sampling and analytical methods; and,
 - i. Quality control and quality assurance data
19. Some of the main water quality issues the proponent should consider include:
- a. Salinity;
 - b. Sedimentation;
 - c. Nutrients;
 - d. Stressors such as pH, EC, turbidity
 - e. Heavy metals and metalloids;
 - f. Macroinvertebrate species assemblages, compositions and assessment results
 - g. Disturbed/exposed acid sulfate soils;
 - h. Hydrocarbons, hydrocarbon derivatives and PAHs.

Proposed safeguards and mitigation measures

20. A description of feasible mitigation measures, changes to the controlled action or procedures, which have been proposed by the proponent or suggested in public submissions, and which are intended to prevent or minimise relevant impacts. Information must include:
- a. a description of the mitigation measures that will be undertaken to prevent or minimise the relevant impacts of the action. These mitigation measure should be substantiated and based on best available practices;
 - b. an assessment of the expected or predicted effectiveness of the mitigation measures including the effect on abundance and condition of species, suitable habitat and ecological communities;
 - c. any statutory or policy basis for the mitigation measures;
 - d. the cost of the mitigation measures;
 - e. an environmental management plan that sets out the framework for continuing management, mitigation and monitoring programs (including any relevant thresholds for corrective actions) for the relevant impacts of the action. Include the person or agency responsible for implementing these programs and the effectiveness of all mitigation measures, including any provisions for independent environmental auditing;
 - f. the name of the agency responsible for endorsing or approving each mitigation measure or monitoring program;
 - g. identification of mitigation measures proposed to be undertaken by State governments, local governments or the proponent;
 - h. any changes to the controlled action which prevent or minimise relevant impacts on listed threatened species and communities.

Offsets

21. Should any residual impact exist that cannot be mitigated it may be necessary for offset measures to be considered in order to ensure the protection of matters of national environmental significance in perpetuity. If required, the department may negotiate offsets with you during the assessment phase. Reference should be made to the Department's draft

policy statement, including any revisions to this statement, at :
<http://www.environment.gov.au/epbc/publications/draft-environmental-offsets.html>

- a. the description of any offset package should include how the offset compensates for the residual impacts, when the offset will be delivered and how the offset will be managed;
- b. an assessment of the impact of the offsets on other matters of environmental, economic, or social significance; and
- c. analysis of cost, both financial and other, related to offsets.

Other approvals and conditions

22. Any other requirements for approval or conditions that apply, or that the proponent reasonably believes are likely to apply, to the proposed action. Information must include:

- a. details of any local or State government planning scheme, or plan or policy under any local or State government planning system that deals with the proposed action, including:
 - i. what environmental assessment of the proposed action has been, or is being, carried out under the scheme, plan or policy; and
 - ii. how the scheme provides for the prevention, minimisation and management of any relevant impacts;
- b. a description of any approval that has been obtained from a State, Territory or Commonwealth agency or authority (other than an approval under the Act), including any conditions that apply to the action;
- c. a statement identifying any additional approval that is required;
- d. a description of the monitoring, enforcement and review procedures that apply, or are proposed to apply, to the action.

Economic and social matters

23. A description of the short-term and long-term social and economic implications and/or impacts of the project.

Environmental record of person proposing to take the action

24. Details of any proceedings under a Commonwealth, State or Territory law for the protection of the environment or the conservation and sustainable use of natural resources against:

- a. the proponent; and
- b. for an action for which a person has applied for a permit, the person making the application.

25. Details of the proponent's environmental policy and planning framework.

Information sources

26. For information given in an environment assessment, the draft must state:

- a. the source of the information;
- b. how recent the information is;
- c. how the reliability of the information was tested; and
- d. what uncertainties (if any) are in the information.

Consultation

27. Any consultation about the action, including:

- a. any consultation that has already taken place;
- b. proposed consultation about relevant impacts of the action;
- c. if there has been consultation about the proposed action — any documented response to, or result of, the consultation.

28. Identification of affected parties, including a statement mentioning any communities that may be affected and describing their views.

Appendix A

Threatened Ecological Communities

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland (Box-Gum Woodland)
- The Weeping Myall Woodlands
- Grey Box (*Eucalyptus macrocarpa*) Grassy Woodlands and Derived Native Grasslands of South-eastern Australia
- Weeping Myall Woodlands ecological community

Threatened Flora

- *Prasaophyllum* sp. Wybong (C.Phelps ORG 5269)
- *Pterostylis cobarensis*
- *Swainsona murrayana*
- *Thesium austral*
- *Tylophora lineraris*

Threatened Fauna

- *Anthochaera phrygia* (Regent Honeyeater), also Migratory
- *Lathamus discolor* (Swift Parrot)
- *Polytelis swainsonii* (Superb Parrot)
- *Chalinolobus dwyeri* (Large-eared Pied Bat)
- *Petrogale penicillata* (Brush-tailed Rock-Wallaby)
- *Psedomys novaehollandiae* (New Holland Mouse)
- *Pteropus poliocephalis* (Grey-headed Flying-fox)
- *Rostratula australis* (Painted Snipe), also Migratory
- *Maccullochella peelii peelii* (Murray Cod)
- *Nyctophilus corbeni* (South-eastern Long-eared Bat)
- *Dasyurus maculatus maculatus* (Spotted-tailed Quoll)
- *Underwoodisaurus sphyrurus* (Border Thick-tailed Gecko)