

Russell Vale Colliery Underground Expansion Project - Planning Assessment Commission Hearing 2 by Dr Martin Denny, December 2015

At the first PAC hearing in February 2015 concerning the Russell Vale Colliery I was able to present information about the lack of rigor concerning terrestrial fauna survey techniques and assessment of impacts upon Threatened fauna species. This was summarised in the Flora and Fauna section of the Appendix 2 to the PAC Review Report as

“The impact assessment is inadequate due to limited survey methods; no trapping was undertaken and no remote cameras were used. The approach of survey was less rigorous than it should have been, and it did not meet the methodology set out in the guidelines (OEH have 2 guidelines for surveying threatened species and the Commonwealth Department of Environment have 5 guidelines).

Several species were not looked at adequately, and the habitat preference of some threatened species is limited due to the inadequate surveys”.

The response to the hearing’s submissions by Hansen Bailey is “Since this time, a number of additional surveys have been undertaken to supplement and update data obtained by ERM”. However, I could not find any further fauna survey information within the documents on the Planning NSW web site and it would appear that these inadequacies brought to light in the first hearing have not been rectified.

I will not go over the details from my initial submission, rather a copy has been handed to the hearing during this session. A summary of my findings that are relevant to this hearing are:

- Survey methodology recommended by both the New South Wales and Federal conservation agencies has not been followed and consequently, several Threatened species have not been adequately investigated and assessed.
- As no Elliott, cage and pit trapping were undertaken, a range of small to medium mammals (e.g. New Holland Mouse, Spotted-tailed Quoll, Southern Brown

Bandicoot) that could occur in the area were not adequately surveyed nor adequately assessed.

- Call broadcasting was inadequate with no calls broadcast for a wide range of species including Sooty Owl, Squirrel Glider and Yellow-bellied Glider.
- No harp trapping for bats was undertaken even though there are several species that are known to be inadequately sampled with call analysis (Anabat). In addition, some of the cave-roosting bat species should have been radio-tracked to locate any roosts in the cliff line habitats.
- Overall, it can be said that the amount of survey methodology and degree of survey effort was inadequate for such an important development and the approach goes against that recommended by NSW OEH and Federal Department of Environment. One can say that the terrestrial fauna surveys at Russell Vale were only half done.

What I would like to address at this hearing is whether the biodiversity assessments, particularly that involving terrestrial fauna, adequately satisfied that proposed under Section 3A of the Environmental Protection & Assessment Act 1979. Although this section has been repealed, the Russell Vale development still comes under this regulation.

The main point within Section 3A of the EP&A Act is that the Director-General of Planning must prepare the environmental assessment requirements for the individual project, which are then given to the proponent. In preparing the environmental assessment requirements, the Director-General must consult with relevant public authorities such as the Office of Environment and Heritage and the local council in the area where the project to take place, to ensure that the key issues are assessed. The Director-General's requirements for the Russell Vale project are given in the Planning web site and include the following extract:

- **Biodiversity** – including
- accurate estimates of any vegetation clearing or other impacts;
- a detailed assessment of the potential impacts of the project on any terrestrial and aquatic threatened species, populations, ecological communities or their habitats; and
- a detailed description of the measures that would be implemented to maintain or improve the biodiversity values of the surrounding region in the medium to long term;

As part of the requirements, a series of Policies, Guidelines & Plans are listed that should be consulted. Under Flora and Fauna two guidelines are relevant here:

Draft Guidelines for Threatened Species Assessment under Part 3A of the Environmental Planning and Assessment Act 1979 (DEC)

Draft Threatened Biodiversity Survey and Assessment Guidelines for Developments and Activities (2004)

Thus, to achieve a detailed assessment of potential impacts on any threatened fauna species the two guidelines should be consulted. What do these two guidelines recommend as an approach to a detailed assessment?

The Draft Guidelines for Threatened Species Assessment under Part 3A advises that the Draft Threatened Biodiversity Survey and Assessment Guidelines should be followed and from Appendix I the following part of a table is extracted:

Structure and content of the threatened species assessment

Section	Purpose	Content
Methods	Details the desktop and field survey methods employed. The technical information should be sufficiently detailed to enable the field survey to be replicated. The choice of fields methods and extent of survey should be justified, and any constraints noted.	<ul style="list-style-type: none"> • Data sources, and an explanation of how data was analysed. • The methods used to determine the stratification units and how the units were sampled. • Information about the spatial distribution and size of strata. • Description of each stratification unit, the vegetation types in terms of structure and floristics, and a list of the dominant plant species in each growth stratum (trees, understorey, shrubs and groundcover). • As part of the habitat assessment requirements, each vegetation type must have a description of the area's disturbance (prior clearing /logging, fire regime, flooding), a description of the weeds present and their density, and comments on the suitability of the area as habitat for species, populations and ecological communities of conservation significance. • Identification of hollow-bearing trees. • Survey techniques utilised and the intensity of sampling in each strata.

Section	Purpose	Content
		<ul style="list-style-type: none"> • Type and number of traps, description of and justification for bait type, species for which call playback was undertaken and time spent playing and listening for each species and the number of survey nights for each technique. • Sampling dates, times and weather conditions; the precise location and layout of all traps, call playback sites, the stratification units, quadrats. • Traverses and sampling sites, vegetation types, and relevant species • Distribution (presented as grid references and maps). • Data analysis method, including any criteria used to categorise areas of high biodiversity.

The Draft Threatened Biodiversity Survey and Assessment Guidelines for Developments and Activities is more specific and, as I have pointed out in the first hearing, gives the following message:

Although not mandatory, these Guidelines, as stated by the DEC, “have been prepared for use by decision makers when considering a proposed development, activity or action pursuant to Parts 4 and 5 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), and Part 6 of the *Threatened Species Conservation Act 1995* (TSC Act). The Guidelines also provide information and assistance to any other individuals or organisations that may be required to consider the effect of a proposal on threatened biodiversity or critical habitat”.

“The aims of the guidelines are to:

- I. **Facilitate informed decision-making at the local scale for individual development activities with particular regard to:**
 - animal and plant survey and assessments;
 - Part 3A assessments for major projects under the EP&A Act;”

This guideline gives detailed descriptions of survey methodology and survey design to be used when assessing threatened flora and fauna species.

Five guidelines covering the different fauna groups have also been issued by the Federal Department of Environment (then called SEWPaC) and, although not mandatory, do state the following in their introduction:

‘Failing to survey appropriately for threatened species that may be present at a site could result in the department applying the precautionary principle with regard to significant impact determinations. That is, if no supporting evidence (such as survey results) is presented to support the claim of species absence, then the department may assume that the species is in fact present. The department will not accept claimed species absence without effective validation such as through these survey guidelines, other survey techniques (for example, a state guideline or an accepted industry guideline), or relevant expertise. Where a claim of absence is made, proposals should provide a robust evaluation of species absence’.

Putting together all the advice offered to prospective fauna surveyors there is a long list of techniques that are recommended for use in impact assessment (and other) surveys. I had constructed a list of recommended survey methodologies and related them to the list of threatened species that could be found in the area of Russell Vale. Most, but not all, are derived from that given in the Russell Vale Environmental Assessment.

As can be seen, there are a number of red marks throughout the table showing that some of the Threatened species have not been surveyed (and consequently assessed) adequately. Although there is an abundance of information derived from many years of surveys and investigations, it is disappointing that the approach to the surveys, particularly the terrestrial fauna, has been less rigorous than would be expected from such a major project. This presentation tells us more than the inadequacy of one aspect of the environmental assessment, it is, unfortunately, an indication of the way the regulatory agencies are currently overseeing such assessments.

I have been involved with fauna surveys for 50 years and impact assessments for 35 years, so I have experienced all the changes in impact assessment regulations and the assessment of these assessments. About 5 years ago, a fauna survey report at the standard presented here for the Russell Vale project would have been sent back with instructions to complete the surveys adequately. However, this was not the case, with the regulatory agencies accepting without question limited data and assessment. As the years go by much of the survey standards and assessment guidelines are being eroded to make the approvals of development far easier. Once, impact assessments would give as much importance to Protected species as Threatened species, then Threatened species were only required to be assessed. Today this is being replaced by "Credit Species" spat out by the Biobanking methodology. It is coming to a time when all surveys and assessments will be undertaken from a computer chair. When people hear I am an ecological consultant I am asked whether the developers put pressure on you to weaken the assessment. I honestly answer that it is isn't developers that are forcing weaker assessments, but the regulatory authorities.

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