



Environment, Climate Change & Water

Your reference: S07/01215
Our reference: Doc 10/44064, LIC 09/250
Contact: Cameron Perry, 49086808

Mr Collin Phillips
Major Development Assessment
Department of Planning
GPO Box 39
SYDNEY NSW 2001

Dear Mr Phillips

Bloomfield Coal Project (07_0087) Section 75W Modification Application

I refer to your letter dated 22 September 2010 seeking a written submission from the Department of Environment, Climate Change and Water (DECCW) on the document "*Extension of the Project Approval Area for Out-Of-Pit Overburden, Emplacement and Rehabilitation, Alternative Haul Road and Powerline Relocation*" prepared by Business Environment ("the modification") and dated September 2010.

DECCW understands that proposed modifications to the existing approval are to allow physical alterations and rehabilitation works to the mine and include:

- Extension of the approved Project Area by 259ha to permit rehabilitation works, in addition to the already approved 317 hectare Project Area;
- Upgrade and use of Wattle Tree Drive as an alternative haul route for coal being transported to the washery from the northern pit areas;
- Additional overburden emplacement (1.2 million bank cubic metres) adjacent to the existing "Save-A-Mile" haul road;
- Additional 50,000 bank cubic metres overburden emplacement in a disturbed northern area;
- Additional 100,000 bank cubic metres overburden emplacement in the south-east of the mine site; and
- Construction of a corridor and overhead powerline from an existing powerline onto the open cut mine site, together with some clearing for associated infrastructure area.

DECCW has reviewed the information provided and determined it is unable to recommend conditions of approval until the issues raised in Attachment A have been adequately addressed.

DECCW advises that we have no record of being consulted during the development of the Director General Environmental Assessment Requirements nor did we receive any request to review the draft Environmental Assessment for Adequacy for the Bloomfield Coal Project Modification. The current request for a written submission is the first opportunity DECCW has been given to review the proposed modification proposal.

If you require any further information on this matter please contact Cameron Perry on (02) 4908 6808.

Yours sincerely

Scrivener 5/11/10.

REBECCA SCRIVENER

A/Head Regional Operations Unit – Hunter Region

North East Branch

Environment Protection and Regulation

Encl: Attachment A – Bloomfield Coal Project (07_0087) Section 75 W Modification Application review

ATTACHMENT A**DECCW COMMENTS – BLOOMFIELD COAL PROJECT MODIFICATION - ENVIRONMENTAL ASSESSMENT (DA 07 0087MOD1)****1. GENERAL**

DECCW is of the opinion the survey details, threatened species assessment and mitigation measure(s) and lack of proposed compensatory habitat (i.e. offsets) are inadequate for the proposal. As such DECCW is unable support this modification proposal in its current form. DECCW would reconsider the development proposal in the light of these concerns being addressed and when appropriate surveys and threatened species assessment, done in accordance with DECCW guidelines, are provided.

2. THREATENED SPECIES

DECCW has reviewed the Biodiversity Assessment, prepared by Hunter Eco, provided at Appendix B of the Environmental Assessment document in accordance with relevant DECCW biodiversity guidelines. The following key issues have been identified that need to be addressed before DECCW can consider proposing recommended conditions of approval for the proposed modification.

2.1 Survey Report Format

The Biodiversity Assessment does not meet DECCW report structure expectations for biodiversity assessments.

The general report structure should be consistent with the information presented in Table 3.4 of DEC (2004). In addition the following is required:

- i) a geo-referenced map / aerial photograph (or equivalent) of the subject site and study area indicating their location and regional context;
- ii) details of the survey design and methodologies / techniques used for both flora and fauna (including details of prevailing weather conditions, any analyses used and copies of all field data sheets);
- iii) a detailed description of all vegetation communities / types (both undisturbed and disturbed) on the site and study area (and if applicable DECCW BioMetric vegetation types), including a geo-referenced map / aerial photograph (or equivalent) showing their location. The descriptions should include: a general description, characteristic features (e.g. lacks a mid-storey, restricted to a particular geomorphic / edaphic feature etc.), their distribution and size, their vegetation structure (including cover), their condition, key diagnostic species, relationship to other communities, species richness and any significant species present (e.g. threatened species, ROTAP [Briggs & Leigh 1996], regionally significant taxa);
- iv) identification of the classification system used in the vegetation descriptions (e.g. Specht *et al.* 1974, Hnatiuk *et al.* 2009 [Note: the classification must have regard to both structural and floristic elements]),
- v) details of how the vegetation classification for the site was developed, including details and associated products (e.g. dendrograms / two-way tables) of any analyses used;
- vi) a full floristic list in tabular format of all taxa (both native and exotic) recorded on the subject site, indicating which vegetation communities they occur in, their cover / abundance, and conservation (including taxa of conservation significance);
- vii) a full list of fauna (both native and exotic) in tabular format recorded on the subject site, indicating which vegetation communities / habitat types they occurred in;
- viii) a geo-referenced map / aerial photograph (or equivalent) showing all threatened species, populations and ecological communities recorded on the site during surveying (*Note: records obtained from the "Atlas of NSW Wildlife" database can be used in determining likely habitat, but they are not to be schematically mapped in the EA, as this is considered a breach of licence conditions for such records);
- ix) all habitat features / types should be detailed and mapped (where appropriate), such as frequency and location of stags, hollow bearing trees (including size), mature / old growth trees, culverts, rock shelters, rock outcrops, presence of feed tree / shrub / groundcover species (e.g. winter-flowering eucalypts, *Acacia* and *Banksia* trees, *Casuarina* / *Allocasuarina* and areas of native grasses], crevices, caves, drainage lines, soaks etc; and

- x) details of how the proposal will impact (both directly and indirectly) and affect known and potential threatened species, populations and ecological communities (including their habitat), including any assessment of significance.
- xi) details of how the proposal may impact on corridors, connective links and fragmentation.
- xii) details of how the proposal will impact (both directly and indirectly) on adjacent government conservation estate.
- xiii) details of mitigation and offset / compensatory habitat measures.

The following components have been identified as minimum survey detail lacking from the current Biodiversity Assessment that must be provided.

- i) Details of the subject species considered;
- ii) Sufficient detail on survey methodologies utilised including and explanation of methodologies used, targeted species and justification for the chosen methodology;
- iii) Standard field details and data including:
 - when (dates/time) surveys were undertaken;
 - what species was surveyed for;
 - climatic conditions during the survey period;
 - survey effort per methodologies utilised; and
 - surveyor details.

DECCW acknowledges that vegetation community/type and condition was based on Driscoll and Bell (2006), however, the Biodiversity Assessment fails to provide further details of the report. In order for DECCW to assess whether or not previous ecological studies and/or surveys are adequate with respect to DECCW guidelines, DECCW will require copies of all the ecological reports used and/or cited in the Biodiversity Assessment. Without such documents DECCW is unable to determine whether or not the level of surveying is appropriate and that all likely and/or potential species and habitats and vegetation types have been adequately surveyed and/or considered.

2.2 Survey Effort

From the information provided, it appears that a complete biodiversity survey was not conducted over the entire area proposed to be incorporated into the existing Bloomfield Colliery site, being Areas A, B, C, D and E, as presented in the modification proposal.

With regard to Area D, the Biodiversity Assessment states: *‘..given the area to be cleared for the relocated powerline easement is continuous with the area referred to as the eastern block in the 2009 application, this ecology assessment will be based on the data from the original report’*.

The Biodiversity Assessment also reports that the remaining areas, being Area A, B, C and E are all landscaped, overburden backfill with spontaneous regrowth and as such the habitat in these four areas is considered to be *‘in poor conditions and unsuitable for any of the threatened species recorded in the area’*. No further justification is provided in the assessment to adequately support this conclusion.

This approach to survey does not meet DECCW guideline standards with respect to adequacy of survey effort, consistency with recommended DECCW guidelines, and scale, size and type of development (i.e. total vegetation / habitat removal). DECCW does not consider surveys adjacent to a proposed development as sufficient to address the requirement or effort to determine likely species present (including populations, ecological communities and habitat), nor to determine likely impact assessment to these species. Nor does DECCW believe it appropriate that areas not be surveyed due to the poor condition of the habitat without any justification provided. DECCW notes the latter regenerating communities could support habitat for a variety of the predicted threatened species and may well represent ecological communities.

2.3 Survey Standard and Methodologies

The Environmental Assessment, as currently drafted, fails to adequately meet any of the commonly accepted standards or methodologies outlined in DEC (2004) and expected by DECCW.

The surveys presented in the Biodiversity Assessment do not follow DECCW survey guidelines and procedures as outlined in DEC (2004). These guidelines provide the minimum standards for both

flora and fauna surveys to which consultants must adhere to. The Biodiversity Assessment and Environmental Assessment does not, in all facets of both the limited flora and fauna survey presented, meet any of the required standards and effort as outlined in DEC (2004) with respect to specific fauna guilds/groups/species, targeted surveys (both flora and fauna) and vegetation / flora surveys in general.

Accordingly, DECCW recommends that the proponent be required to re-submit the Environmental Assessment such that it demonstrates surveys undertaken meet DECCW minimum survey requirements as outlined in DEC (2004) and includes relevant threatened species assessments that reflect the survey requirements/outcomes.

2.4 Survey Locations

Surveys appear to have been only undertaken in what the consultant believes to be intact remnant vegetation. No surveys were conducted in regenerating communities, to which DECCW notes would provide potential habitat for both flora and fauna that are likely to present. Many flora species, including *Grevillea parviflora* subsp. *parviflora*, *Rutidosis heterogama* and *Tetratheca juncea*, which are identified in Table 2 of the Biodiversity Assessment as likely to occur in the modification area, are known to occur in regenerating and/or disturbed communities as part of the colonising process. Similarly, fauna species often utilise regenerating vegetation for foraging and sheltering purposes. Accordingly, these proposed additional areas (Areas A, B, C and E) must also be appropriately surveying and assessed.

2.4.1 Flora

Based on Figure 2 of the Biodiversity Assessment, limited floristic plots and random meanders (i.e. transects) were conducted, in some instances outside of the development footprint as opposed to within the development footprint. DECCW believes flora survey effort is insufficient.

One floristic plot within the proposed modification Area D is not sufficient to assess vegetation across all five areas proposed in the modification. At a bare minimum, four floristic should have been conducted in Area D given the two vegetation types identified were identified in this area (based on DEC 2004). Similarly, no details on species, dates, effort and location of targeted surveys are provided. DECCW would have expected specific targeted flora searches to have been conducted at time when a species is readily detectable (i.e. for taxa require flowers and/or fruits during their appropriate flowering / fruiting times).

The report dismisses two species (*Grevillea parviflora* subsp. *parviflora* and *Tetratheca juncea*) on the basis that the specific habitat is not present as these species are associated with Coastal Plains Smooth-barked Apple woodland community. However, Figure 4 of the Biodiversity Assessment shows this community to be present in Area D. There is no clear explanation as to why these species were not targeted during surveys (or if they were actually survey for) if the woodland community is mapped as being present in Area D. Furthermore given these species broad habitat preferences (along with some of the other taxa cited) DECCW would have expected targeted searches of the regenerating vegetation communities.

DECCW notes that the majority of the intact vegetation is mapped as an ecologically endangered community— namely 'Lower Hunter Spotted Gum – Ironbark Forest in the Sydney Basin Bioregion', to which no mitigation or offset measures have been provided for the clearing of this. It is unknown whether any of the regenerating communities, not mapped or sampled contain ecologically endangered communities.

2.4.2 Fauna

Very limited fauna survey effort is reported in the Biodiversity Assessment and the surveys that were undertaken appear to not be consistent with minimum standards for each faunal guild as specified in DEC (2004). As for flora surveys, it appears fauna surveys were limited to Area D. Again, DECCW would have expected all vegetation communities to be surveyed / sampled (i.e. both intact and regenerating). Basic survey detail is lacking such as details of threatened species recorded on-site including numbers of individuals/populations detected and the location (via a geo-referenced map). The Biodiversity Assessment also needs to indicate what, if any, new records were reported to the NPWS Atlas.

Given the lack of details regarding trapping details, survey effort, timing, no details of targeted searches or engagement of specialised faunal detection such as hair-tube analysis, DECCW believes the fauna survey is inadequate.

2.4.3 General

In order to assess and determine potential impact of a development, DECCW must be satisfied that the following issues have been adequately addressed with respect to survey effort:

- i) a suitable survey design was adopted;
- ii) appropriate survey methodologies were utilised (as specified in the guidelines) and applied at a scale commensurate to detect the target species or guild;
- iii) targeted surveys were adequate and the subject species chosen were appropriate;
- iv) all surveys were conducted at the appropriate time with respect to seasonality and weather conditions (e.g. flower phenology); and
- v) all surveys / methodologies adequately cover the study area, including all vegetation / habitat types and indirect impact areas.

2.5 Biodiversity Mitigation and/or Offset Measures

Given the lack of surveys and likely resultant poor threatened species assessment of impacts, DECCW has serious concerns on the adequacy of mitigation measures presented. Furthermore where clearing of habitat / vegetation, which supports known records of the Powerful Owl and a variety of microchiropteran bats, as well as representing an ecologically endangered community, DECCW expects a biodiversity offset package should be offered. This has not been presented in the Biodiversity Assessment or Statement of Commitments in the Environmental Assessment.

References

- DEC (2004) *Threatened Biodiversity Survey and Assessment: Guidelines for Developments and Activities*. Working Draft. November 2004. Department of Environment and Conservation (NSW)
- Driscoll, C. & Bell, S.A.J. (2006) *The natural vegetation of Bloomfield, Ashtonfield and Donaldson properties: preliminary report*. A report prepared for Bloomfield and Donaldson Coal
- Briggs, J.D. and Leigh, J.H. (1996) *Rare or Threatened Australian Plants*. 5th Revised Edition. Australian Nature Conservation Agency / CSIRO Publishing, Collingwood.
- Hnatiuk, R.J., Thackway, R. and Walker, J. (2009) Vegetation. In *The National Committee on Soil and Terrain Australian Soil and Land Survey Field Handbook*. Third Edition, Australian Soil and Land Survey Handbooks Series 1, CSIRO Publishing, Melbourne.
- Specht, R.L., Roe, E.M., and Boughton, V.H. (1974) Conservation of major plant communities in Australia and Papua New Guinea. *Australian Journal of Botany*. Supplementary Series No. 7.

