



**Notification of
REFERRAL DECISION – not controlled action if undertaken in a particular
manner**

Pine Dale Coal Mine – Yarraboldy Extension (2011/6016)

This decision is made under sections 75 and 77A of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Proposed action

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| person named in the referral | Enhance Place Pty Ltd ACN 077 105 867 |
| proposed action | To expand the existing Pine Dale Coal Mine through open cut mining ('Yarraboldy extension'), 16 kilometres northwest of Lithgow, NSW [See EPBC Act referral 2011/6016]. |

Referral decision: Not a controlled action if undertaken in a particular manner

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| status of proposed action | The proposed action is not a controlled action provided it is undertaken in the manner set out in this decision. |
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Person authorised to make decision

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| Name and position | James Barker A/g Assistant Secretary Environment Assessment Branch |
| signature |  |
| date of decision | 20 October 2011 |

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| manner in which proposed action must be taken | <p>The following measures must be taken to avoid significant impacts on listed threatened species and communities (sections 18 & 18A):</p> <p>To avoid significant impacts on the vulnerable purple copper butterfly (<i>Paralucia spinifera</i>):</p> <p>a) To minimise dust generated by vehicles:</p> <ol style="list-style-type: none">vehicles must be restricted to defined haul roads, which will follow the most direct route practicable with minimal manoeuvring;the number of internal haulage routes must be minimised and aligned in a northeast/southwest direction wherever possible;where haul routes or access roads are located on a weathered substrate (i.e. containing a higher proportion of finer particles), coverage with a more competent |
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- aggregate material must occur;
- iv. vehicles must be restricted to a speed of 40 kilometres per hour when operating within the project site; and
 - v. the perimeter access track must be restricted access, traversable only by senior mine personnel, namely the Manager of Mining Engineering and / or the Open Cut Examiner.
- b) To minimise wind dispersal of dust from the proposed mine site to the purple copper butterfly population:
- i. a 1.5 to 3 metre high vegetated bund must be constructed 4 metres inside the boundary fencing surrounding the eastern perimeter of the open cut excavation area;
 - ii. additional bunding must be constructed on the western perimeter of the project site to provide a primary physical barrier to wind flow;
 - iii. the northern side of the amenity bund must be shaped with an irregular surface so that the bund does not encourage laminar flow of wind;
 - iv. watering of soil stockpiles, coal stockpiles and trafficked areas at a rate of at least 2 litres per square metre per application must be undertaken. Watering will occur as required based on the location of potential dust-generating activities, weather conditions and observed dust emissions;
 - v. soil stockpiles must be placed on clay pads and kept damp through use of the water cart;
 - vi. soil stockpiles that are to be retained for a period of three months or more must be seeded within two weeks of their formation with a non-persistent cover crop or alternatively covered with a layer of mulch to decrease wind erosion;
 - vii. soil must be preferentially stockpiled on the northern or western boundaries;
 - viii. progressive rehabilitation of the site must be undertaken, thus the area of exposed soil at any one time will be minimised;
 - ix. drop height between machinery buckets and trucks must be minimised through operator training and education on dust management;
 - x. all coal trucks leaving the site of the proposed action via public roads must be appropriately covered; and
 - xi. any dust-generating activities must be ceased if winds blowing from the west exceed 9 metres per second and dust is observed by the Open Cut Examiner to be deposited over the butterfly populations to the east.
- c) an ecologist must be commissioned to undertake weekly surveys commencing the first week in September in order to identify the commencement of the purple copper butterfly feeding season;
- d) During the adult and larval stages of the purple copper butterfly life cycle (as defined by manner (c), likely to be September to December) the following additional measures must be
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undertaken:

- i. Additional watering must be undertaken as required based on the location of potential dust-generating activities, weather conditions and observed dust emissions;
 - ii. vegetation and soil stripping campaigns must be avoided;
 - iii. reduced blasting (reduced from four to one blast per week with no increase in intensity);
 - iv. with the exception of drill and blast activities, mining must not recommence within 100 metres of the eastern perimeter of the project site until the larval stage is complete; and
 - v. blasting activities must be relocated at least 250 metres away from the eastern perimeter of the open cut.
- e) Mining activities of all types within the 200 metre setback area (200 metres from the main purple copper butterfly habitat area, as defined in Figure 2.5, attached), inclusive of stockpiles, must only occur during late February to August when larvae are not active.
- f) Should additional measures be required (i.e. if visible dust is still being generated, as determined by the Open Cut Examiner, despite the above measures being undertaken), the following options must be considered and implemented:
- i. the road or active area must be watered to the maximum extent possible while allowing the safe operation of equipment without loss of traction. No surfactant or dust suppression will be added;
 - ii. pre-watering must be undertaken in areas in which future activities are planned later that day or the following morning, such that the surface has time to accept the water prior to disturbance;
 - iii. the 40 kilometre per hour vehicle speed limit must be further reduced in the area of concern if visible dust is being generated despite additional watering;
 - iv. a temporary bund must be installed to provide further barrier to wind dispersal of dust towards the identified purple copper butterfly population;
 - v. there must be a reduction in the intensity of use of the area where dust is being generated; and
 - vi. when the above options are not practicable for either safety or environmental reasons, the dust generating activity must cease or relocate towards the western section of the mine area and monitored to ensure that environmental dust conditions can be managed.

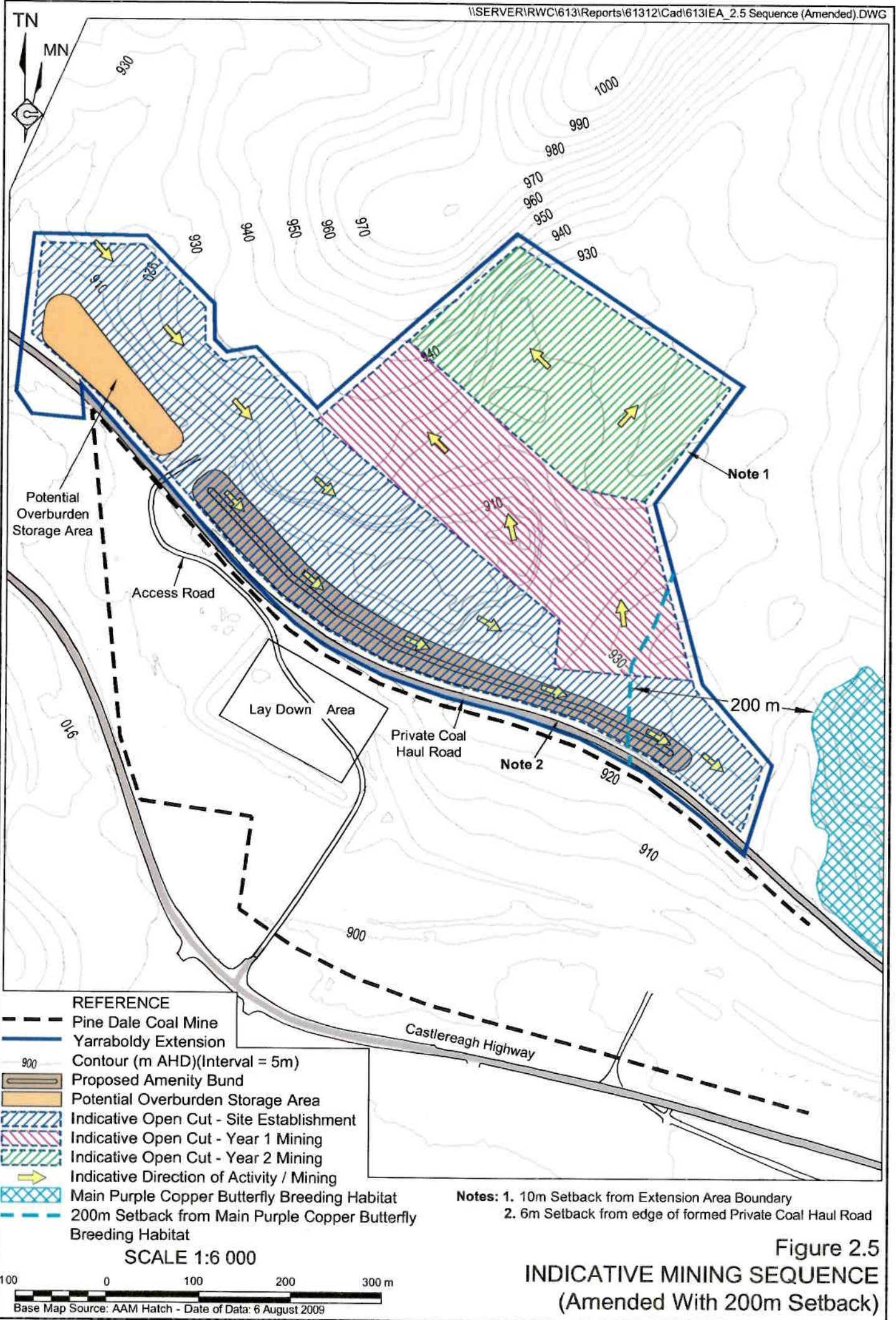
To avoid significant impacts on the vulnerable Austral toadflax (*Thesium australe*):

- g) All identified Austral toadflax plants observed during Enhance Place's flora survey on the project site must be excluded from the project site using fences; and
- h) A 50 metre buffer must be applied to mining activities near all identified Austral toadflax plants observed during Enhance

Place's flora survey on the project site.

To avoid significant impacts on the vulnerable large-eared pied bat (*Chalinolobus dwyeri*):

- i) a pre-clearance tree felling procedure must be used to limit harm to any individual large-eared pied bats using tree hollows. This will involve clearing all non-hollow-bearing trees while leaving hollow-bearing trees standing for a minimum of 24 hours. The remaining trees must then be inspected by a suitably trained or qualified person prior to and after felling.
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- REFERENCE**
- - - Pine Dale Coal Mine
 - Yarraboldy Extension
 - 900 Contour (m AHD)(Interval = 5m)
 - Proposed Amenity Bund
 - Potential Overburden Storage Area
 - Indicative Open Cut - Site Establishment
 - Indicative Open Cut - Year 1 Mining
 - Indicative Open Cut - Year 2 Mining
 - Indicative Direction of Activity / Mining
 - Main Purple Copper Butterfly Breeding Habitat
 - 200m Setback from Main Purple Copper Butterfly Breeding Habitat

Notes: 1. 10m Setback from Extension Area Boundary
 2. 6m Setback from edge of formed Private Coal Haul Road

Figure 2.5
INDICATIVE MINING SEQUENCE
(Amended With 200m Setback)

SCALE 1:6 000



Base Map Source: AAM Hatch - Date of Data: 6 August 2009

