
Response to Submissions Peppertree Quarry Modification 3

Prepared for Boral Resources (NSW) Pty Limited | 3 October 2012

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Final

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Date 3 October 2012

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1 Introduction

An application to modify the Project Approval for Peppertree Quarry (PA06_0074) under Section 75W of the NSW *Environmental Planning and Assessment Act 1979* (EP&A Act) was lodged by Boral Resources (NSW) Pty Limited (Boral) with the Department of Planning and Infrastructure (DP&I) on 14 August 2012. An Environmental Assessment (EA) report accompanied the application which described the proposed modification and the likely environmental impacts. The proposed modification (referred to as Modification 3) entails the following:

- construction of a High Voltage (HV) distribution line to the west of the Quarry; and
- construction of a minor extension to the existing passing line on Boral's private rail line at its connection to the Main Southern Railway line.

The EA was placed on exhibition from 31 August to 17 September 2012. During this time six submissions were received, all from government agencies. Five of these submissions, received from the Division of Resources and Energy (DRE), NSW Office of Water (NOW), Environment Protection Authority (EPA), Sydney Catchment Authority (SCA) and the Heritage Council of NSW, had no concerns or provided suggested conditions for the approval of Modification 3. A submission from the Office of Environment and Heritage (OEH) raised some matters in relation to potential ecology and Aboriginal heritage impacts. In accordance with DP&I's requirements, a response to the matters raised in each of the submissions received on Modification 3 is provided in this document.

EMGA Mitchell McLennan Pty Limited (EMM) has prepared this response document on behalf of Boral.

2 Response to OEH submission

2.1 Ecology

2.1.1 Biobanking methodology

OEH notes EMM have used the Biobanking methodology to undertake the field work, however they have not applied the methodology to assess the impact of the development, and determine the appropriate level of offset for the development. OEH understand the use of the Biobanking methodology is voluntary however if the proponent chooses to apply the methodology for one aspect of the assessment then the methodology should also be applied consistently throughout the assessment. With this in mind the Biobanking methodology should be used to determine the appropriate offset for this development.

The Biobanking methodology was used as a consistent approach to measure the environmental variables of the site, determining vegetation according to the Biometric descriptions and comparing the vegetation of the site to local benchmarks. Using the Biobanking methodology to assess the vegetation of the site places no obligation on the proponent to use Biobanking to assess the impact of the development or to determine offsets for the development. The impacts of the development were assessed using the traditional pathway – seven part test assessments. Appropriate offsets were determined in accordance with the principle of avoid, mitigate and offset.

2.1.2 Avoid, mitigate, offset

OEH acknowledge the route of the HCV power line has been chosen to avoid all large hollow bearing trees, however the route will still impact on regenerating areas of the Endangered Ecological Community "White Box Yellow box Blakely's red gum woodland". The route attempts to avoid significant impacts and may mitigate these impacts, however the current proposal of spraying the class 4 noxious weeds within the surrounding areas is not considered to be an adequate offset for the impacts of this development. Spraying of weeds such as Serrated Tussock and St John's Wort is a legal requirement of all landowners under the Noxious Weeds Act and is therefore required to be undertaken and cannot be considered an offset for this development. OEH note the area where the HV power line route will impact is surrounded by intact Box gum woodland. The proponent could consider investigating the protection or enhanced management of this area as an offset for this development. Such enhanced management should be above and beyond what is required by legislation such as the Noxious Weeds Act.

The proponent has proposed the following measures in order to avoid, mitigate and offset the impacts of the project:

- avoidance of ecological values within the site. This was achieved by line route selection being undertaken in conjunction with Boral personnel, and a preferred route being selected;
- avoidance of all large, over-mature trees
- avoidance of all hollow-bearing trees;
- avoidance of fauna habitat such as woody debris and drainage lines;
- preferential selection of cleared areas to ensure the smallest area of woodland possible was affected by the proposal;

- control of Serrated Tussock and St John's Wort; and
- placement of all woody material removed from the proposed HV Line route in surrounding woodland to provide fauna habitat.

In addition to the above measures previously proposed, the proponent will further offset the impacts of the proposed modification by the inclusion of an additional 1.5 hectares (ha) of land to enhance the existing Habitat Management Area (HMA) (approved under PA06_0074). The approved HMA is shown on Figure 2.1, as well as the additional 1.5 ha proposed as an offset for this modification.

Management of the HMA is prescribed in the Quarry's Landscape and Rehabilitation Management Plan and the management of the offset area will be included within this document. Grazing has already been removed from the HMA and natural and assisted regeneration of species is occurring.

The proposed offset area adjoins the HMA and is previously cleared, grazed land. It is intended that it will be rehabilitated to Box-Gum Grassy Woodland, providing an overall increase in the local extent of the endangered ecological community of more than 1 ha. This equates to an offset ratio of 3:1. Given that the area to be impacted is considered to be of low importance to the conservation of the Box-Gum Grassy Woodland within the local area and within the region, and that only a small area of the ground cover and a limited number of trees will be impacted, an offset ratio of 3:1 is considered more than adequate to compensate for the impacts of the proposed modification.

The following management measures will be undertaken within the proposed offset area and will be incorporated into the existing Landscape and Rehabilitation Management Plan:

- where native trees and shrubs are to be removed from the proposed modification area, seed will be collected for use in planting of the offset area;
- a qualified contractor will undertake soil preparation, direct seeding and direct plantings of Box-Gum Grassy Woodland species (see Appendix A for appropriate species);
- fauna –friendly fencing will be installed around the offset area – this includes no use of barbed wire, height of the highest wire to be restricted to less than one metre, and height of the lowest wire to be no lower than 20 cm;
- any lighting to be installed at the adjacent dam will be directed away from the HMA; and
- weed control will be implemented immediately and will be ongoing, targeting the noxious weeds St John's Wort and Serrated Tussock.

2.2 Aboriginal heritage

The description and documentation of the Aboriginal consultation process does not meet the requirements listed in the DEC July 2005 ACH guidelines for 3A matters. There is no documentation on efforts to undertake cultural mapping and/or oral history recording with Aboriginal community representatives. The information provided in correspondence from Buru Ngunawal Aboriginal Corporation and Ngunawal Heritage Aboriginal Corporation has not been discussed or documented within the EMM report. It would also be helpful to include the Aboriginal Heritage Management Plan as an appendix to the report.

Efforts to undertake cultural mapping and further understand the significance of this area to the Aboriginal community have occurred during previous Aboriginal Heritage Assessments by ERM in 2006 and 2011. To date, no information has been received that identifies specific heritage value unrelated to

the Aboriginal sites. No cultural heritage information, further to that identified in previous assessments, was given to the archaeologist during meetings with Aboriginal community representatives. As a result, cultural mapping was not considered necessary for this modification, particularly given the minor nature of the proposed modifications. Participation of Aboriginal groups in the Aboriginal Management Committee continues to provide avenues for cultural heritage information to be communicated to the proponent should it arise in the future.

The Aboriginal Heritage Management Plan (AHMP) is available for public viewing on Boral's website http://www.boral.com.au/Article/ACM_Marulan_Welcome.asp. The procedures detailed in the AHMP for the ongoing protection of Aboriginal heritage and consultation with the Aboriginal community were followed, according to Project Approval conditions. The Aboriginal community continues to be consulted throughout the development and management of Aboriginal heritage at Peppertree Quarry.

The landscape assessment does not meet requirements in the DEC July 2005 ACH guidelines for 3A matters. No information or discussion about interaction of Aboriginal people with the land in the assessment area; maps of landscape and landform units utilised for the assessment have been included. Maps of landscape features, places, and natural resources of interest to Aboriginal people should also be included.

The impact on landscape features is minimal as ground disturbance will only occur at the pole locations. However, a landform map has been completed (see Figure 2.2) which details the landscape and landform units of the modification area. It shows that the areas to be impacted consist of flat areas with slopes of less than 5 m. Landscape features which may be of interest to Aboriginal people such as Tangarang Creek are also mapped. Few other landscape features or landforms are present in the areas to be impacted and, therefore, a detailed landscape assessment was not considered warranted.

There are four previous ACH assessment reports listed on the OEH Aboriginal Heritage Information Management System (AHIMS) search results for the study area which have not been discussed in this section (see below). The report by Lance and Koettig (1986) has been discussed but it has not been included in the list of references.

The report discussed only those previous archaeological reports which were considered to be of most relevance to the modification. There is a large volume of records of archaeological investigation in the Southern Tablelands and, therefore, it is not practical to discuss all of these reports in an assessment for a minor modification. Those reports which have not been included were not considered to provide information relevant to the present study. However, these reports were discussed in the Marulan South Quarry Aboriginal Heritage Assessment (ERM 2006).

Documentation of the survey strategy and survey units does not meet the requirements stipulated in the 2005 guidelines. For example, the report contains no map that shows the boundaries of the survey units and the route(s) of the survey transects within each unit. There is also no information on survey transect widths. This information is required to calculate effective survey coverage and is a requirement listed in the 2005 guidelines.

The survey covered all areas to be impacted. A map detailing the survey units and their routes is included on Figure 2.2. Survey transects for the HV line were walked by four people spaced approximately 5 m apart resulting in a survey transect width of 20 m. A detail of this survey transect is provided in Figure 2.3. This width is more than sufficient to cover the proposed areas of ground disturbance for the HV line, which are limited to the pole locations. The width of the transect covering the passing line extension was narrowed to 10 m in width due to the nearby location of the railway tracks.

No effective survey coverage information is presented for the passing line as there were nil results. Effective survey coverage for the HV line is provided in Table 2.1.

Table 2.1 **Effective survey coverage**

Landform unit	Survey units	Width (m)	Length (m)	Area (m ²)	Exposure	Area of Exposure	Visibility	Area available for detection	Estimate of effective coverage	Sites
Flat	HV line	1000	25	25,000m ²	50%	12,500m ²	20%	2,500m ²	10%	1 open site

Survey units must be based on recognised landscape and/or landform units. The units described in the EA do not meet the criteria discussed in the 2005 guidelines.

The landforms of the study area are shown in Figure 2.2. Survey units were located on one landform; flat. Flat ground is defined as broad areas with no evidence of defined slope, defined undulating slopes or valley edge ridges.

Site PTQ2 has not been listed on AHIMS and no site card appears to have been submitted. Section 89A of the NPW Act 1974, as amended and Section 102 of the NPW Regulation 2009 are not overridden by Part 3A of the EP&A Act and it is an offence to not provide a site record card to OEH within a reasonable time of discovery of the site. A completed site card should be forwarded to OEH Queanbeyan as soon as possible.

The site card for site PTQ2 has been completed and sent to AHIMS for processing on 27 September 2012.

Two Registered Aboriginal Parties (Buru Ngunawal Aboriginal Corporation and Ngunawal Heritage Aboriginal Corporation) have provided written comment on the report and have provided information on Aboriginal heritage significance. This information should be discussed in this section. The discussion must include a description of the proponent's responses to the comments. It is recommended that all sections of the report that relate to the Aboriginal consultation process should be re-written to meet 2005 requirements.

In response to the comments made by Buru Ngunawal Aboriginal Corporation and Ngunawal Heritage Aboriginal Corporation an email was sent on 9 August 2012 thanking them for their participation and comments. The proponent continues to work with Registered Aboriginal Parties through the Aboriginal Management Committee. Information on Aboriginal heritage significance was taken into account in preparing the management recommendations for this site. To date, no information has been received that identifies specific heritage value unrelated to the Aboriginal sites.

The report recommendations are not consistent with OEH policy as they include a recommendation that works should be monitored by Aboriginal community representatives, where monitoring may not be the best outcome for protecting and understanding ACH values. Often monitoring only results in the discovery of Aboriginal objects (including Aboriginal skeletal remains) after they have been disturbed. Instead OEH suggests that a program of subsurface testing to refine the predictive model for site and artefact locations could be undertaken before construction commences.

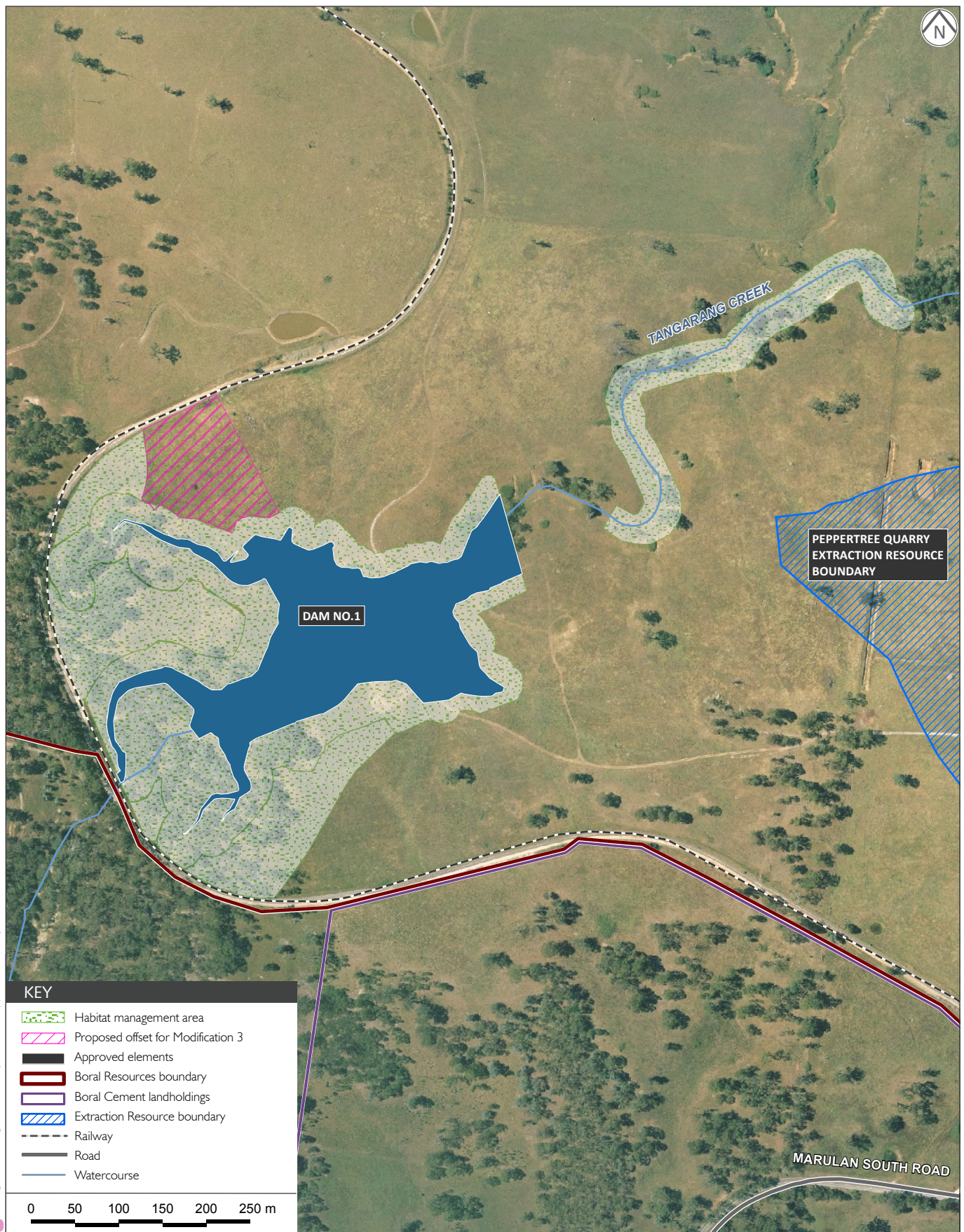
The majority of the area to be impacted by the HV line is located on a flat landform type over 200 m away from a watercourse. As outlined in Section 7 of the report this area is considered to be of low Aboriginal cultural heritage sensitivity. There is a very low probability of Aboriginal archaeological remains being

present. In areas with a low probability of Aboriginal objects, such as this, the monitoring recommendation does not derive from any need for further scientific archaeological investigation. Monitoring has been recommended due to prior agreement with Aboriginal stakeholders that they will monitor earthworks to satisfy their own requirements.

The northern portion of the HV line will pass through a small portion of land defined as sensitive through previous archaeological studies (ERM 2006) due to its location within 200 m of Tangarang Creek. Consistent with Project approval conditions this area was subject to archaeological excavation under controlled conditions. This has created a rich archaeological and cultural record for Aboriginal heritage in Tangarang Creek and its surrounds. Subsequent to this excavation season, the area which the HV line will pass through was disturbed by previously approved construction activities.

In addition to the measures already completed by the proponent, design changes to the HV line have been made to reduce impacts to Aboriginal heritage near Tangarang Creek. The power poles PP14649, PP14650, PP14648, PP14647 have been moved closer to previously disturbed areas, further reducing the potential for Aboriginal objects to be disturbed. This is the maximum distance the power poles can be moved as the HV line will pass between a rail line already under construction and a dam. As a result the construction corridor for the HV line affects a minor proportion of the inferred artefact distribution. The total area of sensitivity estimated for the Tangarang Creek land is 6 km² (600 ha). The estimated area of the HV line corridor, allowing for a 25 m wide corridor is 2.7 ha (25 m x 1,080 m) which is 0.45% of the sensitive area. Impacts to Aboriginal heritage are further reduced as ground disturbance will only occur at the pole locations. These factors combined with the low impact of the HV line mean that subsurface testing or further excavation was not warranted in this instance and monitoring considered appropriate.

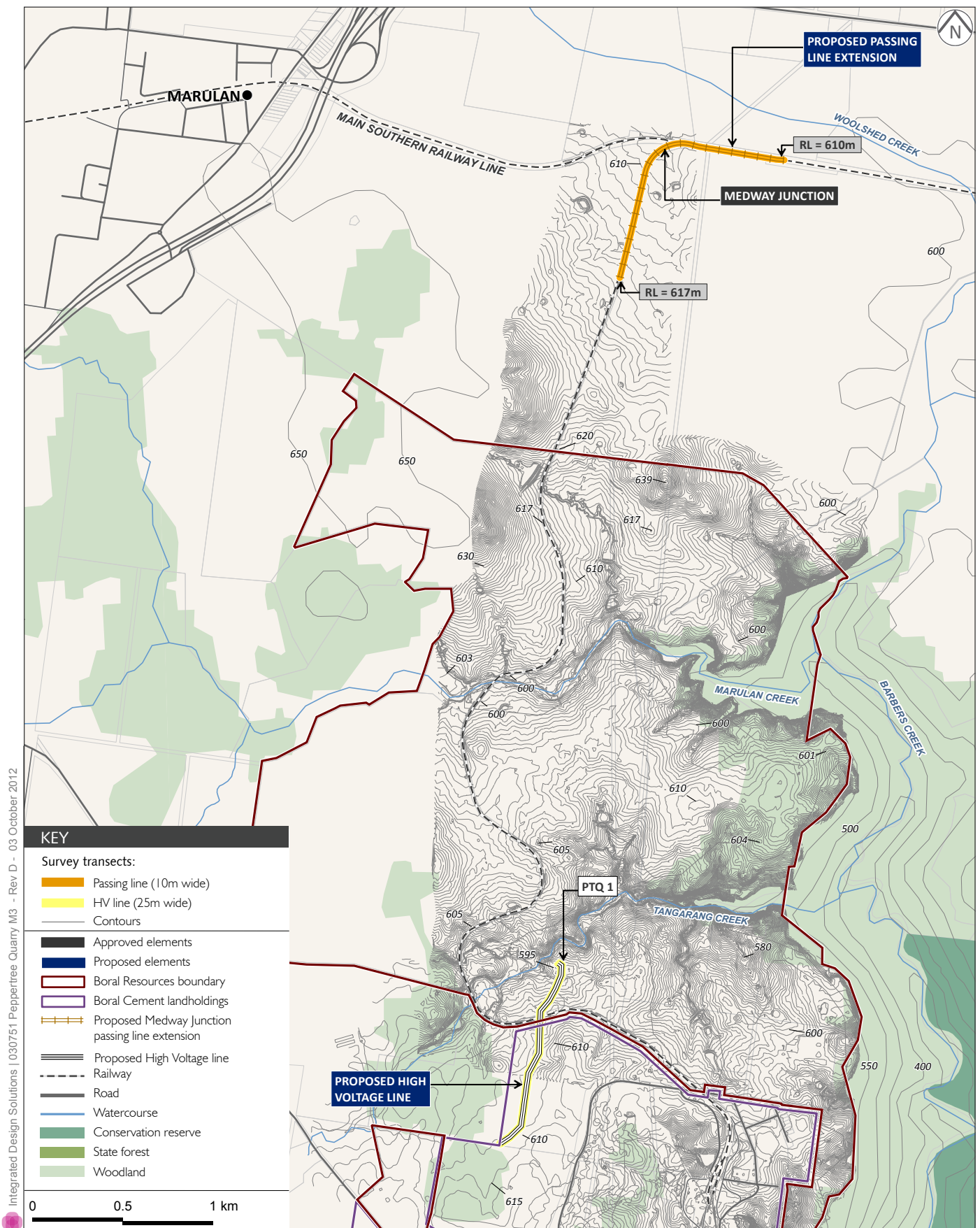
Despite the low archaeological potential of the area and the evident disturbance detailed above, monitoring works have been recommended in consultation with the Aboriginal Management Committee. As detailed in the responses from the Buru Ngunawal Aboriginal Corporation and the Ngunawal Heritage Aboriginal Corporation the recommendation of monitoring is consistent with their views for managing Aboriginal heritage. Boral values the wishes of the Aboriginal community and as such considers monitoring to be an appropriate way to protect and manage Aboriginal cultural heritage.



Habitat management area and proposed offset area

Peppertree Quarry - Modification 3
Response to Submissions

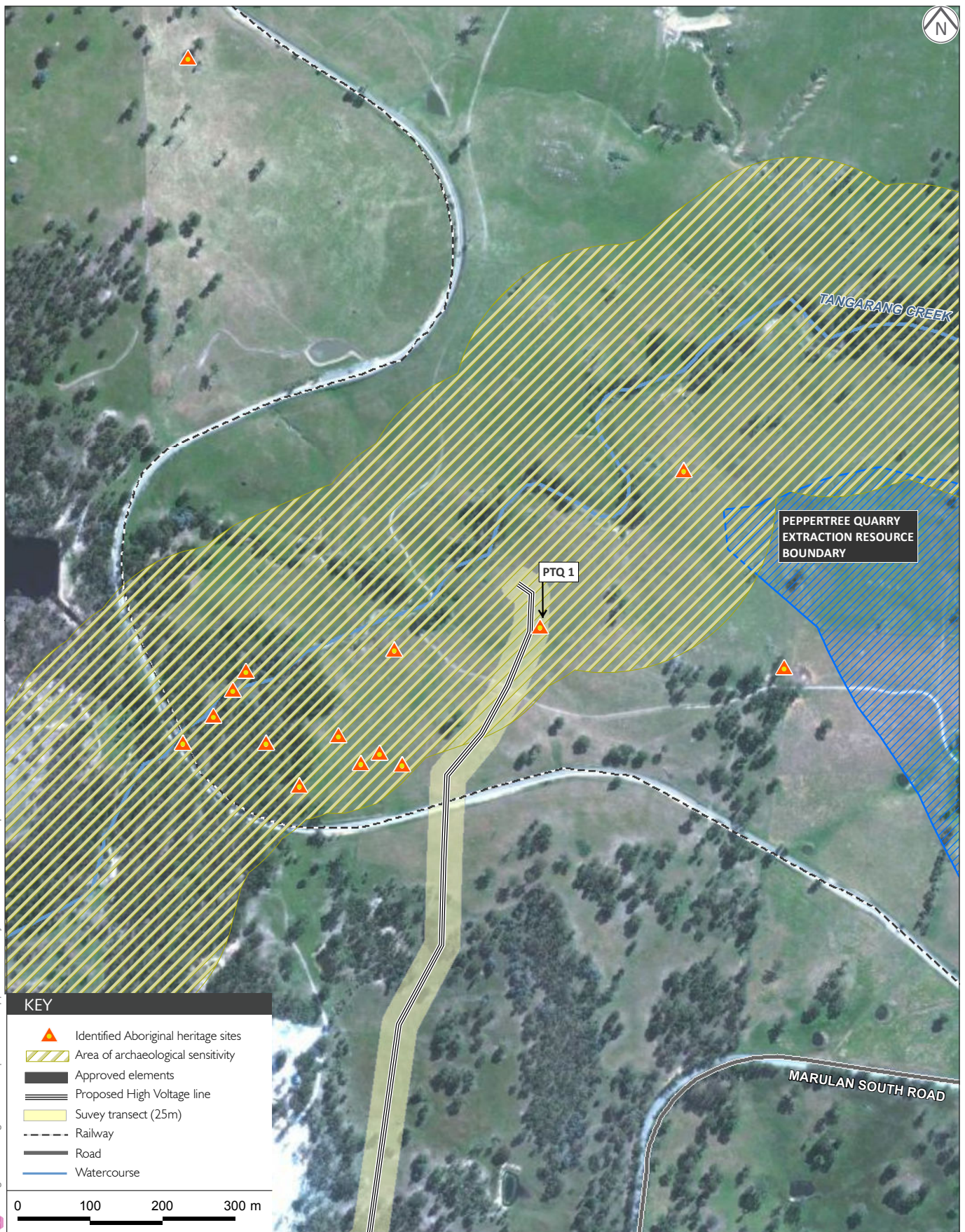
Figure 2.1



Landform division and survey transects

Peppertree Quarry - Modification 3
Response to Submissions

Figure 2.2



Archaeologically sensitive area

Peppertree Quarry - Modification 3
Response to Submissions

Figure 2.3

3 Response to other submissions

Response to the remaining submissions is provided in the below table.

Table 3.1 Response to other submissions on Peppertree Quarry Modification 3

Matters raised in submission	Response
DRE	
There are no concerns with the proposal with regards to mineral resources.	Noted
NOW	
The Office of Water supports the modification provided the following are included in any project approval:	Boral has no objections to the inclusion of these conditions. Appropriate sedimentation and erosion control measures to protect nearby water sources were committed to by Boral in the conceptual sediment and erosion plans in the EA.
<ul style="list-style-type: none"> To aid in the protection of receiving water source quality, erosion and sedimentation control measures must be implemented during the construction of the works, and until all areas are rehabilitated. All disturbed areas must be revegetated and rehabilitated immediately after works are completed. Any works within riparian areas, including drainage lines, need to give consideration to the NSW Office of Water Guidelines for Controlled Activities 2010/2011. 	
EPA	
That construction is undertaken in accordance with current conditions of the Environmental Protection Licence (EPL). This includes the need to comply with Section 120 of the Protection of the Environment Operations Act 1997 at all times as well as noise limits specified in the EPL.	Noted
SCA	
That the Water Management Plan, and Erosion and Sediment Control Plan, for the Quarry shall be updated to:	Boral has no objections to the inclusion of this condition. In accordance with Schedule 5, Condition 7 of PA06_0074, the Quarry's management plans will be reviewed and, if necessary, revised within three months of approval of Modification 3.
<ul style="list-style-type: none"> incorporate all construction and other activities associated with the project modifications; be consistent with the requirements of Managing Urban Stormwater: Soils and Construction, Volume 1, NSW Landcom, 4th Edition, 2004 and Managing Urban Stormwater: Soils and Construction Volume 2E Mines and Quarries, DECC, 2008; and be prepared in consultation with the SCA and other relevant agencies. 	
Heritage Council NSW	
To address the potential issue of historic archaeological deposits being disturbed on the Glenrock Homestead it is recommended that a condition of Approval be included which requires that:	Boral has no objections to the inclusion of this condition.
"If historical archaeological relics are unexpectedly discovered during works, all works must cease and a suitably qualified and experienced historical archaeologist be brought in to assess the find. Depending on the nature of the discovery, additional assessment and recording may be required prior to the recommencement of excavation in the affected area. The Heritage Council (or its Delegate) must be notified of this discovery in writing in accordance with section 146 of the Heritage Act, 1977".	

4 Revised statement of commitments and conclusions

4.1 Revised statement of commitments

The statement of commitments for Modification 3 has been revised as a result of the matters raised in the submissions and is presented in Table 4.1 below.

Table 4.1 Revised statement of commitments

Environmental attribute	Commitment
Ecology	<ul style="list-style-type: none"> All disturbance areas and access routes will be clearly delineated and flagged in the field so that no areas outside of those assessed will be affected by machinery or personnel. No hollow bearing limbs or trees are to be impacted. If bird nests are identified these will be avoided by personnel and machinery. Machinery will not drive over any woody ground debris and where debris is encountered, it will be moved into adjacent native vegetation by hand. All machinery will be inspected for weed seeds and clods of soil prior to entering vegetated areas. Ground disturbance will be minimised wherever possible. All waste and materials used on site will be removed at the conclusion of the works. All holes and trenches will be filled or capped overnight to prevent fauna from injuring themselves or becoming trapped/drowned. Sites will be monitored and managed for noxious weeds in the 12 months following works and until native species have regenerated the site. A clearing maintenance protocol will be established for the ongoing maintenance of the easement and will include protocols for the management of weeds such as Serrated Tussock and St John's Wort. <u>Inclusion of an additional 1.5 ha of land to the HMA as an offset to clearing required for the HV line.</u> <u>If required, the Quarry's Landscape and Rehabilitation Management Plan will be updated to reflect the works to be undertaken under Modification 3 and include the following measures for the HMA:-</u> <ul style="list-style-type: none"> <u>where native trees and shrubs are to be removed from the proposed modification area, seed will be collected for use in planting of the offset area;</u> <u>a qualified contractor will undertake soil preparation, direct seeding and direct plantings of Box-Gum Grassy Woodland species (see Appendix A for appropriate species);</u> <u>any lighting to be installed at the adjacent dam will be directed away from the HMA; and</u> <u>weed control will be implemented immediately and will be ongoing, targeting the noxious weeds St John's Wort and Serrated Tussock.</u>
Aboriginal heritage	<ul style="list-style-type: none"> Monitoring during construction of the HV line will be undertaken by members of the Aboriginal Management Committee and in accordance with the AHMP. Any artefacts identified during monitoring will be collected, bagged, tagged and stored with the artefacts already excavated from the quarry area.
Noise	<ul style="list-style-type: none"> Activities will be managed using the site's existing CNMP that will be adapted to the proposed construction works under Modification 3. Construction works are to be undertaken during the hours of 7 am to 6pm Monday to Friday and 8 am to 1 pm on Saturday with no construction works on Sunday and public

Table 4.1 **Revised statement of commitments**

Environmental attribute	Commitment
	holidays.
Sediment and erosion	<ul style="list-style-type: none">• The control measures identified in the conceptual sediment and erosion control plans (Figures 3.4 and 3.5) will be implemented.• Following construction all disturbed areas will be stabilised and rehabilitated.
Hazards	<ul style="list-style-type: none">• Safety precautions will be implemented during construction works to minimise the potential for injury or death of personnel.
Wastes	<ul style="list-style-type: none">• All waste and materials used will be removed from the disturbed areas at the conclusion of the works and disposed of appropriately.• Green wastes will be used for rehabilitation purposes elsewhere on site, if possible.

4.2 Conclusion

The EA for the Peppertree Quarry Modification 3 raised four submissions from government agencies during exhibition. Three of these submissions either had no concerns with the proposed modifications or suggested conditions for approval. The submission from OEH raised several matters relating to potential ecological and Aboriginal heritage impacts and the management measures for those impacts. These matters have been adequately addressed through the provision of an additional offset area and further information provided within this document.

References

ERM Australia Pty Limited 2006, *Marulan South Quarry Aboriginal Heritage Assessment*, prepared for Boral Resources (NSW) Pty Ltd.

ERM Australia Pty Limited 2011 *Boral Peppertree Quarry Section 75W Modification*, prepared for Boral Resources (NSW) Pty Ltd.

Appendix A

Species list for rehabilitation

The species recommended here are sourced from the Florabank website. Each of the species is detailed in the Florabank *Species Navigator information Fact Sheets*, which include information about how to collect seed, store and propagate these species to enable landholders and community groups to improve the condition of Box-Gum Grassy Woodlands. The navigator can be found here: http://www.florabank.org.au/default.asp?V_DOC_ID=924.

A further 40 Box-Gum Grassy Woodland Species fact sheets can be accessed as part of the Communities in Landscapes project: http://www.florabank.org.au/default.asp?V_DOC_ID=1040.

Table A.1 **Species list for rehabilitation**

Scientific Name	Common Name
<i>Acacia acinacea</i>	Gold-dust Wattle
<i>Acacia dealbata</i>	Silver Wattle
<i>Acacia implexa</i>	Hickory Wattle
<i>Acacia melanoxylon</i>	Black Wattle
<i>Acacia rubida</i>	Red-stemmed Wattle
<i>Allocasuarina littoralis</i>	Forest She-oak
<i>Allocasuarina luehmannii</i>	Buloke
<i>Allocasuarina verticillata</i>	Drooping She-oak
<i>Rytidosperma caespitosum</i>	Ringed Wallaby Grass
<i>Austrodanthonia setacea</i>	Smallflower Wallaby Grass
<i>Brachychiton populneus</i>	Kurrajong
<i>Bursaria spinosa</i>	Blackthorn
<i>Callitris endlicherii</i>	Black Cypress Pine
<i>Callitris glaucophylla</i>	White Cypress Pine
<i>Casuarina cunninghamiana</i>	River She-oak
<i>Daviesia genistifolia</i>	Broom Bitter Pea
<i>Daviesia mimosoides</i>	
<i>Dodonaea viscosa</i>	Sticky Hop Bush
<i>Dillwynia sericea</i>	Showy Parrot Pea
<i>Eucalyptus blakelyi</i>	Blakely's Red Gum
<i>Eucalyptus bridgesiana</i>	Apple Box
<i>Eucalyptus macrorhyncha</i>	Red Stringybark
<i>Eucalyptus mannifera</i>	Brittle Gum
<i>Eucalyptus melliodora</i>	Yellow Box
<i>Eucalyptus pauciflora</i>	Snow Gum
<i>Eucalyptus polyanthemus</i>	Red Box
<i>Eucalyptus sideroxylon</i>	Mugga Ironbark
<i>Goodenia rotundifolia</i>	
<i>Hakea microcarpa</i>	Small-fruit Hakea
<i>Hardenbergia violacea</i>	Native Sarsparilla
<i>Leptospermum polygalifolium</i>	Tantoon
<i>Leucochrysum albicans</i>	
<i>Lomandra longifolia</i>	Long-leaved Mat-rush
<i>Microlaena stipoides</i>	Weeping Meadow Grass
<i>Poa labillardieri</i>	Tussock

Table A.1 **Species list for rehabilitation**

Scientific Name	Common Name
<i>Poa siberiana</i>	Snowgrass
<i>Themeda triandra (australis)</i>	Kangaroo Grass
<i>Vittadinia cuneata</i>	Fuzzweed
<i>Xerochrysum viscosum</i>	Sticky Everlasting

