



ABN: 39 002 886 839

Environmental Assessment of
Modification 1 for
Project Approval 10_0183
for the
Teralba Quarry

Prepared by:



R.W. CORKERY & CO. PTY. LIMITED

December 2017

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Environmental Assessment of Modification 1 for Project Approval 10_0183

for the

Teralba Quarry

Prepared for:

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December 2017



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LIST OF ACRONYMS

BBAM	Biobanking Assessment Methodology
BC Act	<i>Biodiversity Conservation Act 2016</i>
BC Reg	<i>Biodiversity Conservation Regulation 2017</i>
DPE	NSW Department of Planning and Environment
EA	Environmental Assessment
ELA	Eco Logical Australia Pty Ltd
EP&A Act	<i>Environmental Planning and Assessment Act (1979)</i>
IBRA	Interim Biogeographic Regionalisation for Australia
OEH	Office of Environment and Heritage
PA	Project Approval
PCT	Plant Community Type
RWC	R.W. Corkery & Co. Pty Limited

1. INTRODUCTION

1.1 SCOPE

This *Environmental Assessment* (EA) has been prepared by R.W. Corkery & Co. Pty Limited (RWC) on behalf of Metromix Pty Ltd (Metromix) to support an application to modify Project Approval (PA) 10_0183, specifically as it relates to the biodiversity offsetting obligations resulting from ongoing development of the Teralba Quarry (the Quarry). Following the commencement of the *Biodiversity Conservation Act 2016* (BC Act) and *Biodiversity Conservation Regulation 2017* (BC Reg), Metromix, in conjunction with RWC and Eco Logical Australia Pty Ltd (ELA) has reviewed the options available to satisfy the biodiversity offsetting obligations that are conditional requirements of PA 10_0183 relating to the Teralba Quarry Extension Project, approved in February 2013 (under PA 10_0183 – reproduced as **Appendix 1**). Metromix considers that the wording of Condition 52 of Schedule 3 of PA 10_0183 limits the ability of the Company to satisfy offsetting requirements compared to the options permitted for the Biodiversity Offsets Scheme provided under the BC Act and BC Reg. Metromix is applying to modify PA 10_0183 as it is considered more appropriate that the conditions of PA 10_0183 refer only to the number and types of credits required to be offset as a result of the impacts associated with the development. In addition, Condition 53 of PA 10_0183 needs to be modified to update the current timing for submission of a Biodiversity Offset Strategy and securing the necessary credits.

The Teralba Quarry Extension Project was approved in February 2013 under Part 3A of the EP&A Act (now repealed) and therefore, in accordance with Schedule 6A Subsection 2 of the EP&A Act is a ‘Transitional Part 3A Project’ for the purposes of assessment of the proposed modification. The consent authority for the modification application will be the Minister on the advice of the Secretary of the NSW Department of Planning and Environment (DPE).

Section 75W of the EP&A Act is reproduced as follows.

75W Modification of Minister’s approval

(1) In this section:

Minister’s approval means an approval to carry out a project under this Part, and includes an approval of a concept plan.

Modification of approval means changing the terms of a Minister’s approval, including:

(a) revoking or varying a condition of the approval or imposing an additional condition of the approval, and

(b) changing the terms of any determination made by the Minister under Division 3 in connection with the approval.

(2) The applicant may request the Minister to modify the Minister’s approval for a project. The Minister’s approval for a modification is not required if the project as modified will be consistent with the existing approval under this Part.

(3) The request for the Minister’s approval is to be lodged with the Director-General. The Director-General may notify the applicant of environmental assessment requirements with respect to the Proposed Modification that the applicant must comply with before the matter will be considered by the Minister.

(4) *The Minister may modify the approval (with or without conditions) or disapprove of the modification.*

Metromix considers that the proposed modification would not change the approved outcomes of the Teralba Quarry Extension Project, including predicted environmental impacts and ongoing environmental management, but would provide Metromix the flexibility intended under the BC Act and BC Reg for satisfying their biodiversity offsetting obligations.

This EA has been prepared in four sections including:

- an overview of the scope for the application and relevant background information;
- a description of the proposed modification;
- a brief environmental impact assessment; and
- a justification and conclusion including review of the objects of the EP&A Act as they relate to the modification and the ongoing operation of the Quarry.

1.2 BACKGROUND

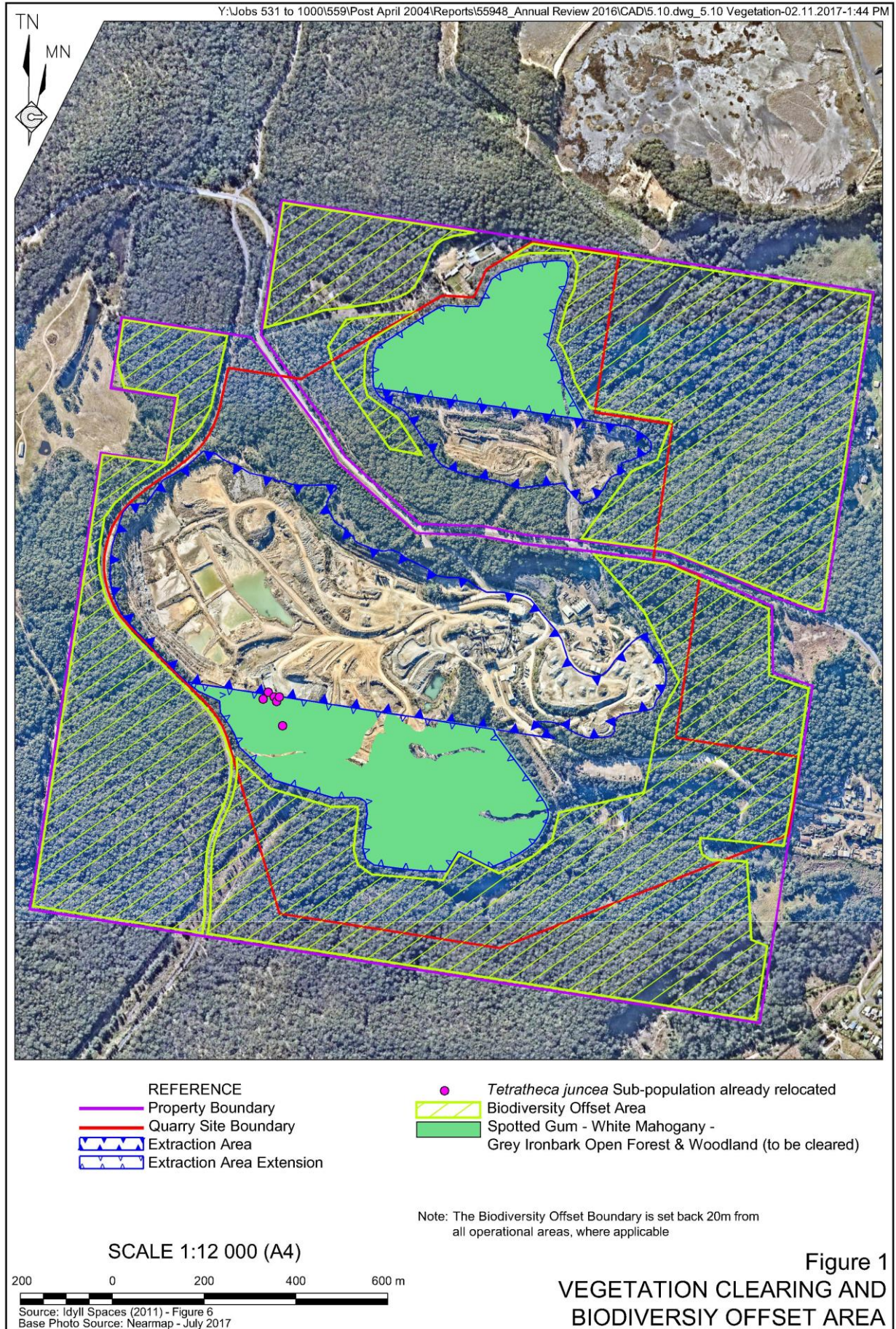
The Teralba Quarry Extension Project was approved under PA 10_0183 on 22 February 2013. As well as operational conditions, PA 10_0183 included two conditions relating to implementation of a Biodiversity Offset Strategy that required Metromix to secure a biodiversity offset area of 142.6ha. A figure displaying the land for the offset area was included as Appendix 5 of PA 10_0183. **Figure 1** displays the area of vegetation clearing approved under PA 10_0183 and the location of the approved Biodiversity Offset Area. Conditions 52 and 53 of Schedule 3 of PA 10_0183 are reproduced as follows.

Biodiversity Offset Strategy

52. The Proponent shall implement the Biodiversity Offset Strategy, as described in the Environmental Assessment, summarised in Table 8 and shown conceptually in the figure in appendix 5, to the satisfaction of the Director-General.

Table 8: Biodiversity Offset Strategy

<i>Area</i>	<i>Offset Type</i>	<i>Minimum Size (ha)</i>
<i>Offset Area</i>	<i>Existing vegetation to be enhanced</i>	<i>142.6ha</i>
<i>Total</i>		<i>142.6ha</i>



Long Term Security of Offsets

53. By the end of June 2014, unless the Director-General agrees otherwise, the Proponent shall enter into a conservation agreement pursuant to section 69B of the National Parks and Wildlife Act 1974 for the Offset Area, which records the obligations assumed by the Proponent under the conditions of this approval in relation to this area, and shall register this agreement pursuant to section 69F of the National Parks and Wildlife Act 1974. The conservation agreement must remain in force in perpetuity.

If the OEH is not prepared to enter into a conservation agreement, then to satisfy this condition, the Proponent may propose another conservation measure to secure the offset for approval by the Director-General.

During preparation of the conservation agreement required under Condition 53 of Schedule 3 of PA 10_0183, Metromix was advised of OEH's preference for the offset area to be secured under a BioBanking Agreement. However, once the draft BioBanking Assessment was completed and submitted informally for OEH review, Metromix were further advised that the application would not be accepted due to specific reference to the subject land in PA 10_0183 (i.e. under the then Threatened Species Regulations, the Minister for the Environment could not register a Biobanking Agreement over land that is already nominated to be managed as an offset).

Following further consultation with DPE and OEH at the time, it was determined that proposed changes to the legislation relating to biodiversity offsetting (the BC Act and BC Reg) would most likely resolve this conflict. For this reason, securing of the biodiversity offset area for conservation purposes was delayed and the deadline to implement the Biodiversity Offset Strategy extended by DPE to 31 December 2017 to allow the finalisation and commencement of the new biodiversity conservation legislation.

The land subject for the approved offset area is owned by Mr Graeme Kerby and leased to Metromix for the purpose of the Quarry operation and to provide the necessary offsets. Accordingly, any offsetting arrangement over the land would be registered in the name of Mr Graeme Kerby, and Mr Kerby would be required to meet all of the legal ongoing management and reporting obligations associated with the BioBanking Agreement in perpetuity. Metromix would purchase and retire the necessary credits under an additional agreement with Mr Kerby.

2. DESCRIPTION OF THE PROPOSAL

2.1 OVERVIEW OF THE PROPOSED MODIFICATION

It is proposed that the existing Conditions 52 and 53 of Schedule 3 of PA 10_0183 be deleted and in their place new Condition 52 and 53 be included as follows.

Biodiversity Offset Strategy

52. By 30 June 2018, the Applicant must submit a Biodiversity Offset Strategy in accordance with the Framework for Biodiversity Assessment - NSW Biodiversity Offsets Policy for Major Projects 2014, for the retirement of ecosystem and species credits as set out in Table 8, to the satisfaction of the Secretary and OEH.

Table 8: Biodiversity credits to be retired

Credit Type	Number of Credits
Ecosystem Credits	
<i>PCT1589 'Spotted Gum - Broad-leaved Mahogany – Grey Gum grass – shrub open forest on Coastal Lowlands of the Central Coast'</i>	1 343
Species Credits	
<i>Black-eyed Susan (Tetratheca juncea)</i>	1 103

Long Term Security of Offsets

53. By 31 December 2018, unless otherwise agreed with the Secretary, the Applicant must make suitable arrangements to provide appropriate long-term security for the Biodiversity Offset Strategy, to the satisfaction of the Secretary. Any mechanism must remain in force in perpetuity.

Note: Mechanisms are to provide appropriate long-term security for the land within the Biodiversity Offset Strategy in accordance with the NSW Biodiversity Offset Policy for Major Projects 2014.

In addition, it is proposed that Appendix 5 of PA 10_0183 be removed.

2.2 LEGISLATIVE CONTEXT

The BC Act and BC Reg commenced on 25 August 2017 and provide the legislative support for an updated Biodiversity Offsets Scheme. This scheme includes several options for proponents to consider in order to satisfy biodiversity offsetting obligations as a result of development involving the removal of native vegetation and threatened species habitat as well as variation rules that apply in certain circumstances.

The biodiversity offset rules provide the following options for proponents to meet offset obligations.

- Retiring credits based on the like-for-like rules.
- Funding a biodiversity conservation action that benefits the threatened entity impacted by the development.
- Committing to deliver site ecological rehabilitation in accordance with the ancillary rules for site ecological rehabilitation.
- Making a payment to the Biodiversity Conservation Fund calculated using the offset payments calculator.

Further to this, credits may be retired based on the like-for-like rules through a dedicated biodiversity offset area established by Metromix or through purchase and retirement of credits on the open market.

The current wording of Condition 52 of Schedule 3 of PA 10_0183 permits only for Metromix to retire credits using an on-site offset based on like-for-like rules. The flexibility intended under the Biodiversity Offsets Scheme is not afforded under this wording.

3. ENVIRONMENTAL IMPACT ASSESSMENT

3.1 INTRODUCTION

The proposed modification does not change the approved development and environmental management of the Quarry. That is, there is no change to the extent of vegetation clearing or other operational impacts such as noise emissions, dust generation and transportation that are currently managed by Metromix and reported in the Annual Review for the Quarry. A recent Independent Environmental Audit concluded that the Quarry was operating generally in compliance with the conditional requirements of PA 10_0183 and EPL 536 (Trevor Brown & Associates, 2017).

3.2 BACKGROUND TO BIODIVERSITY OFFSETTING APPROACH

As described in Section 2.1, the proposed modification would change the wording of Conditions 52 and 53 of Schedule 3 of PA 10_0183, principally in regard to the original Biodiversity Offset Strategy presented in the *Environment Assessment for the Teralba Quarry Extensions* (RWC, 2011). The original Biodiversity Offset Strategy was approved as a 142.6ha offset area that was to be secured under a conservation agreement under Section 69B of the *National Parks and Wildlife Act 1974*.

Correspondence between OEH and ELA regarding the Biodiversity Offset Strategy are presented as **Appendix 2**. During initial consultation with OEH regarding the proposed Conservation Agreement (see correspondence reproduced in **Appendix 2** dated 5 August 2013), OEH raised a preference for the use of a BioBanking Agreement to secure offset sites (see correspondence reproduced in **Appendix 2** dated 27 August 2013, 26 September 2013 and 27 September 2013). The mechanism to secure the offset area was subsequently modified to a BioBanking Agreement and a draft assessment of the impact area and biodiversity credit obligations submitted to OEH on 11 June 2014 (see **Appendix 2**).

Following further consultation with OEH regarding the specific reference to the subject land in PA 10_0183, it was concluded that this wording inadvertently triggered Clause 11(1)(d) of the *Threatened Species (BioBanking) Regulation 2008*. That is, the Minister for the Environment was of the opinion that the land was already the subject of a requirement to carry out biodiversity conservation measures of an ongoing nature on the land as a condition of approval and therefore the land did not satisfy the requirements of a BioBank Site.

It is noted that the issue of the wording of the conditions of PA 10_0183 with respect to offsetting obligations was raised by OEH (see OEH correspondence reproduced in **Appendix 2** dated 27 August 2013) and in the correspondence dated 11 June 2014. An application for a BioBanking Agreement was not formally submitted based on advice from OEH that the wording of Condition 52 of Schedule 3 and the inclusion of Appendix 5 in PA 10_0183 may limit the ability of Metromix (through the landowner) to register a BioBanking Agreement over the land. Subsequent to this, DPE approved an extension to the deadline for Metromix to secure the Biodiversity Offset to 31 December 2017.

3.3 BIODIVERSITY IMPACT ASSESSMENT AND OFFSETTING REQUIREMENTS

As described in Section 3.2, ELA calculated the credits required to offset impacts to native vegetation as a result of the Teralba Quarry Extension Project. **Table 1** presents the number of ecosystem credits required to be purchased and retired for clearing of 24.8ha of ‘*HU631 Spotted Gum – Grey Ironbark open forest on the foothills of the Central Coast*’, as calculated in August 2012 in accordance with the Biobanking Assessment Methodology (BBAM) Version 2.0 (DECC, 2008). In addition, impacts associated with the removal (and translocation) of 75 *Tetradlea juncea* plants was assessed and the number of species credits required to be offset presented in **Table 2**.

Table 1
Ecosystem Credit Requirements

Biometric Vegetation Type (based on 2012 assessment)	Area Impacted (ha)	Credits Required
HU 631: Spotted Gum - Grey Ironbark open forest on the foothills of the Central Coast, Sydney Basin	24.8	1 343
Source: Eco Logical Australia Pty Ltd		

Table 2
Species Credit Requirements

Scientific Name	Common Name	Impact	Credits Required
<i>Tetradlea juncea</i>	Black-eyed Susan	75 plants	1 103
Source: Eco Logical Australia Pty Ltd			

It is noted that the biometric vegetation type HU631 is no longer recognised as a vegetation type under OEHS current vegetation classification system (VIS). Its closest equivalent is PCT1589 ‘*Spotted Gum - Broad-leaved Mahogany – Grey Gum grass – shrub open forest on Coastal Lowlands of the Central Coast*’. It is therefore considered appropriate that credits for PCT 1589 replace HU631 in the conditions of consent. However, it is noted that where necessary, the relevant FBA credit trading rules may apply to PCTs that are in the same Vegetation Class (and Formation) and which meet the requirements with regards to percent cleared in the same IBRA region.

As the assessment of biobanking credit obligations was undertaken in August 2012 and correspondence with DPE and OEHS continued until recently, the transitional arrangements for the changes in biobanking methodology and guidelines do not apply. Therefore, the biodiversity credit obligations assessed by ELA are considered acceptable.

3.4 OPTIONS TO SATISFY OFFSETTING OBLIGATIONS

As described in Section 2.2, there are a variety of options available to Metromix under the Biodiversity Offsetting Scheme additional to the currently approved Biodiversity Offset Area. These include purchasing and retiring credits on the open market, funding approved biodiversity conservation actions, rehabilitation of the Quarry Site, payments to the Biodiversity Conservation Fund and credits that may be secured through the eventual rehabilitation of the Quarry.

3.5 CREDIT AVAILABILITY

Metromix has investigated the feasibility of purchasing both ecosystem and species credits on the open market to satisfy the biodiversity credit obligations described in Section 3.3 and the availability of the necessary credits on the market. ELA has confirmed the availability of suitable credits and would act as a broker for the trade of biodiversity credits in this regard. More information regarding this investigation is available upon request but is not provided here due to market sensitivity.

In addition, Metromix maintains an agreement with the landowner of the approved Biodiversity Offset Area (Mr Graeme Kerby) with regards to the establishment of an offsetting agreement to secure the land for conservation purposes in perpetuity.

It is proposed that following determination of the proposed modification, a revised Biodiversity Offset Strategy would be developed and submitted to the DPE and OEH for approval to secure the necessary credits. It is anticipated that Metromix would also consider the possibility of satisfying credit requirements through payment of funds into the Biodiversity Conservation Trust.

3.6 CONCLUSION

The assessments undertaken by ELA have established the biodiversity credit requirements to offset impacts to native vegetation as a result of the approved Teralba Quarry Extension Project. Should the proposed modification be approved, there are currently several options available to Metromix to satisfy its offsetting requirements and suitable market availability for the purchase of biodiversity credits.

4. EVALUATION

4.1 JUSTIFICATION

The proposed changes to the wording of Conditions 52 and 53 of Schedule 3 of PA 10_0183 and the removal of Appendix 5 would not alter the development, environmental management or predicted environmental impacts currently approved under PA 10_0183. **Table 3** provides a review of the proposed modification against the objects of the EP&A Act.

Table 3
Objects of the EP&A Act

Page 1 of 2

Object	Comments
<ul style="list-style-type: none"> • to encourage: <ul style="list-style-type: none"> – the proper management, development and conservation of natural and artificial resources, including agricultural land, natural areas, forests, minerals, water, cities, towns and villages for the purpose of promoting the social and economic welfare of the community and a better environment, 	<p>The proposed modification would not change the ongoing management and development of the Quarry but would provide Metromix with the flexibility to satisfy offsetting requirements as intended under the recently commenced BC Act and BC Reg. The proposed modification would ultimately permit the approved impacts to native vegetation to be offset in a manner that is in the long-term interests of Metromix, the landowner and the local community.</p>

Table 3 (Cont'd)
Objects of the EP&A Act

Page 2 of 2

Object	Comments
<ul style="list-style-type: none"> - the promotion and co-ordination of the orderly and economic use and development of land, 	<p>The proposed modification would allow Metromix to choose from a variety of mechanisms to satisfy offsetting requirements including the option to purchase and retire biodiversity credits on the open market, which would fund biodiversity conservation in the areas connected to the credits in perpetuity.</p>
<ul style="list-style-type: none"> - the protection, provision and co-ordination of communication and utility services, 	<p>No additional infrastructure or services would be required under the proposed modification.</p>
<ul style="list-style-type: none"> - the provision of land for public purposes, 	<p>The Quarry is located on private freehold land and it is not proposed that this land be provided for public purposes.</p>
<ul style="list-style-type: none"> - the provision and co-ordination of community services and facilities, and 	<p>The Quarry is located on private freehold land and would not affect the provision and co-ordination of community services and facilities.</p>
<ul style="list-style-type: none"> - the protection of the environment, including the protection and conservation of native animals and plants, including threatened species, populations and ecological communities, and their habitats, and 	<p>The proposed modification would permit Metromix to satisfy offsetting requirements in accordance with the BC Act that has the purpose to maintain a healthy, productive and resilient environment for the greatest well-being of the community, now and into the future, consistent with the principles of ecologically sustainable development.</p>
<ul style="list-style-type: none"> - ecologically sustainable development, and 	<p>As per the above, offsetting in accordance with the BC Act would enhance native vegetation conservation in accordance with the principles of ecologically sustainable development. These include:</p> <ul style="list-style-type: none"> • the precautionary principle; • the principle of social equity; • the principle of the conservation of biodiversity and ecological integrity; and • the principle for the improved valuation and pricing of environmental resources.
<ul style="list-style-type: none"> - the provision and maintenance of affordable housing, and 	<p>The proposed modification would not contribute to any additional pressure on local housing.</p>
<ul style="list-style-type: none"> • to promote the sharing of the responsibility for environmental planning between the different levels of government in the State, and 	<p>The proposed modification would meet the requirements of all relevant environmental planning legislation and guidelines.</p>
<ul style="list-style-type: none"> • to provide increased opportunity for public involvement and participation in environmental planning and assessment. 	<p>The proposed modification relates to the wording of conditional requirements only and does not change the management or development of the existing Quarry. Therefore, the input from the community will be limited. However, all management plans and the Biodiversity Offset Strategy will be made publicly available, once approved by DPE.</p>

4.2 CONCLUSION

The proposed modification would not alter the management or development of the Quarry and therefore there are no additional environmental impacts that require assessment. However, the proposed modification would provide Metromix with the flexibility intended under the BC Act and BC Reg to satisfy the offsetting requirements that would result from the ongoing development of the Quarry. The potential impacts of the development have been assessed previously and are approved, however this modification seeks approval for Metromix to access the options (recommended under the existing guidelines) to satisfy offsetting requirements in a manner that is most beneficial to the Company, the landowner and the local community.

5. REFERENCES

Trevor Brown & Associates. (2017). *Independent Environmental Audit: Teralba Quarry Project*. February 2017.

DECC, 2008. *BioBanking Assessment Methodology*.

RWC, (2011). *Environmental Assessment for the Teralba Quarry Extensions*. Major Project Application No. 10_0183.

Appendices

(Total No. of pages including blank pages = 110)

- Appendix 1 Project Approval PA 10_0183 (44 pages)
- Appendix 2 Correspondence with OEH – BioBanking
Assessment (64 pages)

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Appendix 1

Project Approval PA 10_0183

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Project Approval

Section 75J of the *Environmental Planning and Assessment Act 1979*

As delegate of the Minister for Planning and Infrastructure, I approve the project application referred to in schedule 1, subject to the conditions in schedules 2 to 5.

These conditions are required to:

- prevent, minimise, and/or offset adverse environmental impacts;
- set standards and performance measures for acceptable environmental performance;
- require regular monitoring and reporting; and
- provide for the ongoing environmental management of the project.


Sam Haddad
Director-General

Sydney 22nd February 2013

SCHEDULE 1

Application Number:	10_0183
Proponent:	Metromix Pty Limited
Approval Authority:	Minister for Planning and Infrastructure
Land:	Lot 1 DP 224037 Lot 2 DP 224037
Project:	Teralba Quarry Extension

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DEFINITIONS

AM peak period	7:30 am to 9 am weekdays
Annual review	The review required by condition 4 of schedule 5
BCA	Building Code of Australia
Biodiversity offset strategy	The conservation and enhancement strategy described in the EA, and depicted conceptually in the figure in Appendix 5
CCC	Community Consultative Committee
Conditions of this approval	Conditions contained in schedules 1 to 5 inclusive
Council	Lake Macquarie City Council
CPI	Australian Bureau of Statistics Consumer Price Index
Department	Department of Planning and Infrastructure
Director-General	Director-General of the Department, or nominee
DRE	Division of Resources and Energy within the Department of Trade and Investment, Regional Services and Infrastructure
DPI	Department of Primary Industries within the Department of Trade and Investment, Regional Services and Infrastructure
EA	Environmental Assessment of the project titled <i>Environmental Assessment for the Teralba Quarry Extensions, Major Project Application No. 10_0183</i> , prepared by RW Corkery & Co Pty Limited and dated November 2011; and the <i>Teralba Quarry Extensions Response to Submissions</i> , prepared by RW Corkery & Co Pty Limited and dated June 2012
EPA	NSW Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPL	Environment Protection Licence under the <i>POEO Act</i>
Extraction Areas	The Southern, Southern Extension, Mid Pit and Northern Extension Extraction Areas shown on Figure 1 in Appendix 1
Feasible	Feasible relates to engineering considerations and what is practical to build
Haulage routes	The transport routes (see also Appendix 4) along which quarry products may be hauled from the site: <ul style="list-style-type: none">• Route 1 – Northwestern Corridor: westwards along Rhondda Road, and then northwards along Wakefield Road and Northville Road to George Booth Drive;• Route 2 – Southwestern Corridor: westwards along Rhondda Road, and then southwards along Wakefield Road to the F3 Freeway;• Route 3 – Northeastern Corridor: northeast along Railway Street, Teralba, crossing the railway line, then southwards along York Street Teralba, then north-easterly along Five Islands Road to either The Esplanade or Lake Road; and• Route 4 – Southeastern Corridor: northeast along Railway Street, Teralba, crossing the railway line, then southwards along York Street Teralba and Toronto Road
km	kilometres
Land	As defined in the EP&A Act, except for where the term is used in the noise and air quality conditions in schedules 3 and 4 of this approval where it is defined to mean the whole of a lot, or contiguous lots, owned by the same landowner, in a current plan registered at the Land Titles Office at the date of this approval
m AHD	metres Australian Height Datum
Material harm to the environment	Actual or potential harm to the health or safety of human beings or to ecosystems that is not trivial
Minister	Minister for Planning and Infrastructure, or delegate
Minor	Not very large, important or serious
Negligible	Small and unimportant, such as to be not worth considering
NOW	NSW Office of Water, within the Department of Primary Industries
OEH	Office of Environment and Heritage within the Department of Premier and Cabinet

Privately-owned land	Land that is not owned by a public agency or the Proponent (or its subsidiary)
PM peak period	4:30 pm to 6:00 pm weekdays
POEO Act	<i>Protection of the Environment Operations Act 1997</i>
Project	The development as described in the EA
Proponent	Metromix Pty Limited, or any other person who seeks to carry out the development approved under this approval
Quarrying operations	Includes the removal of overburden and extraction, processing, handling, storage and transportation of extractive materials on site
Reasonable	Reasonable relates to the application of judgement in arriving at a decision, taking into account mitigation benefits, cost of mitigation versus benefits provided, community views and the nature and extent of potential improvements
Rehabilitation	The restoration of land disturbed by the project to a good condition, ensuring that it is safe, stable and non-polluting and appropriately revegetated
RMS	Roads and Maritime Services
Statement of commitments	The Proponent's commitments in Appendix 3
Site	The land listed under "Land" in schedule 1

SCHEDULE 2 ADMINISTRATIVE CONDITIONS

OBLIGATION TO MINIMISE HARM TO THE ENVIRONMENT

1. In addition to meeting the specific performance criteria established under this approval, the Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any material harm to the environment that may result from the construction, operation, or rehabilitation of the project.

TERMS OF APPROVAL

2. The Proponent shall carry out the project generally in accordance with the:
 - (a) EA;
 - (b) statement of commitments; and
 - (c) conditions of this approval.

Notes:

- *The general layout of the project is shown in Appendix 1 and Appendix 2.*
- *The statement of commitments is reproduced in Appendix 3.*

3. If there is any inconsistency between the above documents, the most recent document shall prevail to the extent of the inconsistency. However, the conditions of this approval shall prevail to the extent of any inconsistency.
4. The Proponent shall comply with any reasonable requirement/s of the Director-General arising from the Department's assessment of:
 - (a) any reports, strategies, plans, programs, reviews, audits or correspondence that are submitted in accordance with this approval; and
 - (b) the implementation of any actions or measures contained in these documents.

LIMITS ON APPROVAL

Quarrying Operations

5. The Proponent may carry out quarrying operations on the site until 31 December 2038.

Note: Under this approval, the Proponent is required to rehabilitate the site and carry out additional undertakings to the satisfaction of the Director-General. Consequently, this approval will continue to apply in all other respects other than the right to conduct quarrying operations until the rehabilitation of the site and those undertakings have been carried out to a satisfactory standard.

Extractive Material Limits

6. The Proponent shall not carry out quarrying operations below 20 m AHD in the Southern Extension Area or below 24 m AHD in the Mid Pit Extraction and Northern Extension Areas.

Note: This condition does not apply to the construction of any bores approved by NOW or pollution and sediment control structures described in the EA.

7. The Proponent shall not extract more than 1.2 million tonnes of extractive materials from the site in any calendar year.

Extractive Material Transport

8. The Proponent shall not:
 - (a) transport more than 1 million tonnes of quarry products from the site in any calendar year; or
 - (b) dispatch more than 326 laden trucks from the site on any day; or
 - (c) dispatch more than 241 laden trucks per day or 20 per hour westwards along Rhondda Road;
 - (d) dispatch more than 85 laden trucks per day or 8 per hour eastwards through Teralba;
 - (e) dispatch laden trucks for travel through Teralba between 6 pm and 6 am; or
 - (f) receive unladen trucks via the railway street entrance between 6 pm and 7 am.

9. The Proponent shall limit the total hourly truck dispatch rates from the site to the levels shown in Table 1.

Table 1 – Truck Dispatch Hours

Dispatch Period	Maximum Hourly Dispatch Rate
6:00 am – 7:00 am	Up to 28 loaded trucks
7:00 am – 6:00 pm	Up to 20 loaded trucks
6:00 pm – 5:00 am	Up to 6 loaded trucks
5:00 am – 6:00 am	Up to 12 loaded trucks

Note: Dispatch times and maximum hourly rates westwards along Rhondda Road or eastwards through Teralba are further limited by condition 8 above.

Receival of Concrete, Virgin Excavated Natural Material and Excavated Natural Material

10. The Proponent shall not receive on site more than 120 tonnes of recycled concrete per day or stockpile more than 2,500 tonnes of concrete material on the site.
11. The Proponent shall not receive on site more than 100,000 tonnes of virgin excavated natural material or excavated natural material in any calendar year.

SURRENDER OF CONSENTS

12. By the end of December 2013, or as otherwise agreed by the Director-General, the Proponent shall surrender the development consent (DA 130/42) for existing operations on the site in accordance with Section 104A of the EP&A Act.

Note: The conditions or other requirements of this project approval do not prevent the continued carrying out of development which may be undertaken pursuant to DA 130/42, prior to the surrender of that consent.

STRUCTURAL ADEQUACY

13. The Proponent shall ensure that any new buildings and structures, and any alterations, or additions to existing buildings and structures, are constructed:
- in accordance with the relevant requirements of the BCA; and
 - to the satisfaction of the Mine Subsidence Board.

Notes:

- Under *Part 4A of the EP&A Act*, the Proponent is required to obtain construction and occupation certificates for the proposed building works.
- Part 8 of the EP&A Regulation* sets out the requirements for the certification of the project.
- Under Section 15 of the *Mine Subsidence Compensation Act 1961* the Proponent is required to obtain approval from the Mine Subsidence Board for the construction, erection or alteration of any improvements on the site.

DEMOLITION

14. The Proponent shall ensure that all demolition work on site is carried out in accordance with *AS 2601-2001: The Demolition of Structures*, or its latest version.

PROTECTION OF PUBLIC INFRASTRUCTURE

15. The Proponent shall:
- repair, or pay the full costs associated with repairing, any public infrastructure that is damaged by the project; and
 - relocate, or pay the full costs associated with relocating, any public infrastructure that needs to be relocated as a result of the project.

PLANNING AGREEMENT

16. Within 12 months of the date of this approval, unless otherwise agreed by the Director-General, the Proponent shall enter into a planning agreement with the Council in accordance with Division 6 of Part 4 of the EP&A Act that provides for payment to the Council for road maintenance levies.

The agreement must include provision for those matters set out in condition 17 below.

If there is any dispute between the Proponent and Council relating to the preparation or implementation of the planning agreement, then either party may refer the matter to the Director-General for resolution.

ROAD MAINTENANCE

17. During the life of the project, for each calendar year, the Proponent shall pay Council \$0.066 per tonne per kilometre for every tonne of quarry products transported from the site on roads for which Council is liable for road maintenance funding. Each payment must be:
- (a) based on weighbridge records of the quantity of quarry products transported from the site;
 - (b) paid by the date required by the invoice issued by Council; and
 - (c) increased over the life of the project in accordance with the CPI.

OPERATION OF PLANT AND EQUIPMENT

18. The Proponent shall ensure that all plant and equipment used at the site is:
- (a) maintained in a proper and efficient condition; and
 - (b) operated in a proper and efficient manner.

STAGED SUBMISSION OF ANY STRATEGY, PLAN OR PROGRAM

19. With the approval of the Director-General, the Proponent may submit any strategy, plan or program required by this approval on a progressive basis.

Notes:

- *While any strategy, plan or program may be submitted on a progressive basis, the Proponent will need to ensure that the existing operations on site are covered by suitable strategies, plans or programs at all times; and*
- *If the submission of any strategy, plan or program is to be staged, then the relevant strategy, plan or program must clearly describe the specific stage to which the strategy, plan or program applies, the relationship of this stage to any future stages, and the trigger for updating the strategy, plan or program.*

PRODUCTION DATA

20. The Proponent shall:
- (a) provide annual quarry production data to DRE using the standard form for that purpose; and
 - (b) include a copy of this data in the Annual Review (see condition 4 of schedule 5).

SCHEDULE 3 ENVIRONMENTAL PERFORMANCE CONDITIONS

IDENTIFICATION OF APPROVED LIMITS OF EXTRACTION

1. Prior to carrying out quarrying operations under this approval, the Proponent shall:
 - (a) engage a registered surveyor to mark out the boundaries of the approved limits of extraction within the Extraction Areas; and
 - (b) submit a survey plan of these boundaries to the Director-General.
2. While ever quarrying operations are being carried out, the Proponent shall ensure that these boundaries are clearly marked at all times in a permanent manner that allows operating staff and inspecting officers to clearly identify the limits of extraction within the Southern, Southern Extension, Mid Pit and Northern Extension Extraction Areas.

EXTRACTION MANAGEMENT

Operating Conditions

3. The Proponent must ensure that:
 - (a) the underlying historical coal workings within the Great Northern coal seam pose not greater than a negligible risk to the safety of quarry workers, including risks from sudden unplanned collapses, release of noxious gases or explosion of flammable gases; and
 - (b) quarrying operations pose not greater than a negligible risk to the heating or combustion of the underlying historical coal workings within the Great Northern coal seam.

Lower Level Extraction Management Plan

4. The Proponent shall prepare and implement a Lower Level Extraction Plan for all extraction activities within 17.5 vertical metres of historical coal workings within the Great Northern coal seam, to the satisfaction of the Director-General. This plan must:
 - (a) be submitted for approval to the Director-General prior to undertaking any such quarrying operations and within 12 months of the date of this approval;
 - (b) be prepared by suitably qualified persons approved by the Director-General;
 - (c) provide for the achievement of the measures set out in condition 3 above;
 - (d) describe the measures that would be implemented to ensure:
 - best management practice quarrying operations are being employed on site;
 - individual responsibilities of workers, contractors and management are detailed and understood; and
 - compliance with the relevant conditions of this approval;
 - (e) include a Spontaneous Combustion Management Plan, which has been prepared in consultation with DRE and Oceanic Coal Pty Ltd, to manage the potential risks and impacts of spontaneous combustion or heating of coal, and which:
 - includes a detailed assessment, of the risks of spontaneous combustion and subsurface heating for each of the existing and proposed Extraction Areas;
 - clearly identifies responsibilities to address management of spontaneous combustion and subsurface heating risks, for both day to day operations and long term management; and
 - includes appropriate short and long term contingency plans.

NOISE

Noise Criteria

5. The Proponent shall ensure that the noise generated by the project does not exceed the criteria in Table 2 at any residence on privately-owned land.

Table 2: Noise criteria dB(A)

Location	Day Shoulder 6-7 am	Day 7 am – 6 pm	Evening 6 – 10 pm	Night 10 pm – 6 am	
	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{Aeq} (15 min)	L _{A1} (1 min)
A	38	38	37	35	45
B	42	46	36	35	45
C	42	42	35	35	45
D, E, G, H, I	35	35	35	35	45
F	37	38	38	35	45

Notes:

- Receiver locations are shown in Figure 2 Appendix 1.
- Noise generated by the project is to be measured in accordance with the relevant requirements and exemptions (including certain meteorological conditions) of the NSW Industrial Noise Policy.

However, these criteria do not apply if the Proponent has a written agreement with the relevant landowner to exceed the criteria, and the Proponent has advised the Department in writing of the terms of this agreement.

Hours of Operation

6. The Proponent shall comply with the operating hours set out in Table 3.

Table 3: Operating Hours

Day	Receipt of Concrete or Virgin Excavated Natural Material	Loading and Dispatch of Quarry Trucks	Extraction and Processing Operations
Monday – Friday	7 am to 5 pm	4 am Monday to midnight Friday	7 am to 7 pm
Saturday	7 am to 2 pm	midnight Friday to 6 pm Saturday	7 am to 2 pm
Sundays and Public Holidays	None	None	None

Note: Maintenance activities may occur at any time provided they are inaudible at privately-owned residences.

Operating Conditions

7. The Proponent shall:
- implement best practice noise management to minimise the construction, operational and traffic noise of the project;
 - minimise the noise impacts of the project during meteorological conditions when the noise limits in this approval do not apply;
 - maintain the effectiveness of any noise suppression equipment on plant at all times and ensure defective plant is not used operationally until fully repaired;
 - regularly assess noise monitoring data and relocate, modify, and/or stop operations on site to ensure compliance with the relevant conditions of this approval; and to the satisfaction of the Director-General.

Noise Management Plan

8. The Proponent shall prepare and implement a Noise Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be submitted for approval to the Director-General within 4 months of the date of this approval;
 - describe the measures that would be implemented to ensure:
 - best management practice is being employed on site;
 - the noise impacts of the project are minimised during any meteorological conditions when the noise limits in this approval do not apply; and
 - compliance with the relevant conditions of this approval;
 - describe the proposed noise management system in detail; and
 - include a monitoring program that:

- is capable of regularly evaluating the performance of the project, including noisy individual items of plant, such as haulage trucks and the bulldozer;
- includes a protocol for determining any exceedances of the relevant conditions in this approval at locations listed in Table 2; and
- evaluates and reports on the effectiveness of the noise management system on site.

BLASTING

Blasting Criteria

9. The Proponent shall ensure that the blasting on the site does not cause exceedances of the criteria in Table 4.

Table 4: Blasting criteria

Location	Airblast overpressure (dB(Lin Peak))	Ground vibration (mm/s)	Allowable exceedance
Any residence on privately owned land,	120	10	0%
or any public infrastructure	115	5	5% of the total number of blasts over a period of 12 months

However, these criteria do not apply if the Proponent has a written agreement with the relevant owner or infrastructure provider/owner, and the Proponent has advised the Department in writing of the terms of this agreement.

Blasting Hours

10. The Proponent shall only carry out blasting on site between 10 am and 4 pm Monday to Friday inclusive. No blasting is allowed on weekends or public holidays, or at any other time without the written approval of Director-General.

Blasting Frequency

11. The Proponent shall not carry out more than 1 blast a day on site, unless an additional blast is required following a blast misfire.

Note: A blast may involve a number of explosions within a short period, typically less than two minutes.

Property Inspections

12. If the Proponent receives a written request from the owner of any privately-owned land within 500 m of proposed blasting for a property inspection to establish the baseline condition of any buildings and/or structures on his/her land, or to have a previous property inspection report updated, then within 2 months of receiving this request the Proponent shall:
- (a) commission a suitably qualified, experienced and independent person, whose appointment has been approved by the Director-General, to:
 - establish the baseline condition of any buildings and/or structures on the land, or update the previous property inspection report; and
 - identify any measures that should be implemented to minimise the potential blasting impacts of the project on these buildings and/or structures; and
 - (b) give the landowner a copy of the new or updated property inspection report.

Property Investigations

13. If the owner of any privately-owned land claims that the buildings and/or structures on his/her land have been damaged as a result of blasting on site, then within 2 months of receiving this claim in writing from the landowner the Proponent shall:
- (a) commission a suitably qualified, experienced and independent person, whose appointment is acceptable to both parties, to investigate the claim; and
 - (b) give the landowner a copy of the property investigation report.

If this independent property investigation confirms the landowner's claim, and both parties agree with these findings, then the Proponent shall repair the damages to the satisfaction of the Director-General.

If the Proponent or landowner disagrees with the findings of the independent property investigation, then either party may refer the matter to the Director-General for resolution.

Operating Conditions

14. During blasting operations, the Proponent shall:
 - (a) implement best management practice to:
 - protect the safety of people and livestock in the surrounding area;
 - protect public or private infrastructure/property in the surrounding area from any damage; and
 - minimise the dust and fume emissions of any blasting; and
 - (b) operate a suitable system to enable the public to get up-to-date information on the proposed blasting schedule on site,
to the satisfaction of the Director-General.

15. The Proponent shall not undertake blasting within 500 metres of:
 - (a) any public road without the approval of Council; or
 - (b) any land outside the site not owned by the Proponent, unless:
 - the Proponent has a written agreement with the relevant landowner to allow blasting to be carried out closer to the land, and the Proponent has advised the Department in writing of the terms of this agreement, or
 - the Proponent has:
 - demonstrated to the satisfaction of the Director-General that the blasting can be carried out closer to the land without compromising the safety of the people or livestock on the land, or damaging the buildings and/or structures on the land; and
 - updated the Blast Management Plan to include the specific measures that would be implemented while blasting is being carried out within 500 metres of the land.

Blast Management Plan

16. The Proponent shall prepare and implement a Blast Management Plan for the project to the satisfaction of the Director-General. This plan must:
 - (a) be submitted to the Director-General for approval within 4 months from the date of project approval;
 - (b) be prepared in consultation with the Council and interested members of the local community potentially affected by blasting operations;
 - (c) describe the measures that would be implemented to ensure:
 - best management practice is being employed; and
 - compliance with the relevant conditions of this approval;
 - (d) include a road closure management plan for blasting within 500 metres of a public road, that has been prepared in consultation with Council;
 - (e) include a specific blast fume management protocol to demonstrate how emissions will be minimised including risk management strategies if blast fumes are generated; and
 - (f) include a monitoring program for evaluating the performance of the project including:
 - compliance with the applicable criteria; and
 - minimising fume emissions from the site.

AIR QUALITY

Air Quality Criteria

17. The Proponent shall ensure that all reasonable and feasible avoidance and mitigation measures are employed so that particulate matter emissions generated by the project do not exceed the criteria in Tables 5 to 7 at any residence on privately-owned land, or on more than 25% of any privately-owned land.

Table 5: Long-Term Impact Assessment Criteria for Particulate Matter

Pollutant	Averaging period	^d Criterion
Total suspended particulates (TSP)	Annual	^a 90 µg/m ³
Particulate matter < 10 µm (PM ₁₀)	Annual	^a 30 µg/m ³

Table 6: Short Term Impact Assessment Criteria for Particulate Matter

Pollutant	Averaging period	^d Criterion
Particulate matter < 10 µm (PM ₁₀)	24 hour	^a 50 µg/m ³

Table 7: Long-Term Impact Assessment Criteria for Deposited Dust

Pollutant	Averaging period	Maximum increase in deposited dust level	Maximum total deposited dust level
^c Deposited dust	Annual	^b 2 g/m ² /month	^a 4 g/m ² /month

Notes to Tables 5-7:

- ^a Total impact (ie incremental increase in concentrations due to the project plus background concentrations due to all other sources);
- ^b Incremental impact (ie incremental increase in concentrations due to the project on its own);
- ^c Deposited dust is to be assessed as insoluble solids as defined by Standards Australia, AS/NZS 3580.10.1:2003: Methods for Sampling and Analysis of Ambient Air - Determination of Particulate Matter - Deposited Matter - Gravimetric Method.
- ^d Excludes extraordinary events such as bushfires, prescribed burning, dust storms, sea fog, fire incidents, illegal activities or any other activity agreed by the Director-General in consultation with EPA.

Greenhouse Gas Emissions

18. The Proponent shall implement all reasonable and feasible measures to minimise the release of greenhouse gas emissions from the site.

Operating Conditions

19. The Proponent shall:
- implement best management practice to minimise the dust emissions of the project;
 - regularly assess air quality monitoring data and relocate, modify, and/or stop operations on site as may be required to ensure compliance with the relevant conditions of this approval,
 - minimise the air quality impacts of the project during adverse meteorological conditions and extraordinary events (see Note d to Tables 5-7 above);
 - minimise any visible off-site air pollution; and
 - minimise surface disturbance of the site, other than as permitted under this approval.

Air Quality Management Plan

20. The Proponent shall prepare and implement an Air Quality Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with Council, and submitted for approval to the Director-General within 4 months of the date of this approval;
 - describes the measures that would be implemented to ensure:
 - best management practice is employed;
 - the air quality impacts of the project are minimised during adverse meteorological conditions and extraordinary events; and
 - compliance with the relevant conditions of this approval;
 - describes the proposed air quality management system; and
 - includes an air quality monitoring program that:
 - is capable of evaluating the performance of the project;

- includes a protocol for determining any exceedances of the relevant conditions of approval;
- adequately supports the air quality management system; and
- evaluates and reports on the adequacy of the air quality management system.

METEOROLOGICAL MONITORING

21. For the life of the project, the Proponent shall ensure that there is a suitable meteorological station operating in the vicinity of the site that:
- complies with the requirements in the *Approved Methods for Sampling of Air Pollutants in New South Wales* guideline; and
 - is capable of continuous real-time measurement of temperature lapse rate, in accordance with the *NSW Industrial Noise Policy*, or as otherwise approved by EPA.

SOIL & WATER

Note: The Proponent is required to obtain the necessary water licences for the project under the Water Act 1912 and/or the Water Management Act 2000.

Water Supply

22. The Proponent shall ensure it has sufficient water during all stages of the project, and if necessary, adjust the scale of quarrying operations on site to match its available supply.

Surface Water Discharges

23. The Proponent shall ensure that all surface water discharges from the site comply with the discharge limits in any EPL which regulates water discharges from the site, or with section 120 of the POEO Act.

On-Site Sewage Management

24. The Proponent shall manage on-site sewage to the satisfaction of Council and the EPA.

Storage of Chemicals & Petroleum Products

25. The Proponent shall ensure that all chemicals and/or petroleum products on site are held in appropriately bunded areas with impervious flooring and sufficient capacity to contain 110% of the largest container stored within the bund, and in accordance with Australian Standard AS1940-2004, *The Storage and Handling of Flammable and Combustible Liquids*. The flooring and bund(s) shall be designed in accordance with:
- the requirements of relevant Australian Standards; and
 - DECC's *Storing and Handling Liquids: Environmental Protection – Participants Manual*.

Water Management Plan

26. The Proponent shall prepare and implement a Water Management Plan for the project to the satisfaction of the Director-General. This plan must be prepared in consultation with Council and NOW by suitably qualified and experienced person/s whose appointment has been approved by the Director-General, and be submitted to the Director-General for approval within 6 months of the date of this approval and prior to any extraction activities within the Northern Extension area.

In addition to the standard requirements for management plans (see condition 3 of schedule 5), this plan must include a:

- (a) Site Water Balance that:
- includes details of:
 - sources and security of water supply, including contingency planning;
 - water use on site;
 - water management on site;
 - reporting procedures, including comparisons of the site water balance each calendar year; and
 - describes the measures that would be implemented to minimise clean water use on site;

- (b) Surface Water Management Plan, that includes:
- detailed baseline data on surface water flows and quality in the watercourses that could be affected by the project;
 - a detailed description of the surface water management system on site, including the:
 - clean water diversion systems;
 - erosion and sediment controls; and
 - water storages;
 - design objectives and performance criteria for proposed:
 - erosion and sediment control structures;
 - water storages; and
 - control of water pollution from rehabilitated areas of the site;
 - performance criteria, including trigger levels for investigating any potentially adverse impacts, for surface water quality of local watercourses and Lake Macquarie;
 - a program to monitor:
 - the effectiveness of the water management system;
 - surface water flows and quality in local watercourses and Lake Macquarie; and
 - ecosystem health of local watercourses and Lake Macquarie;
 - a plan to respond to any exceedances of the performance criteria, and mitigate and/or offset any adverse surface water impacts of the project; and
 - a detailed review the dirty water management system to:
 - determine whether the capacity, integrity, retention time and management of the system are sufficient to ensure that water discharged from the site meets the performance criteria and propose any upgrades necessary to meet these criteria;
 - assess appropriate options to improve storage and retention times in accordance with *The Blue Book - Managing Urban Stormwater (MUS): Soils and Construction (Landcom)*; and
- (c) Groundwater Management Plan, that includes:
- detailed baseline data on groundwater yield and quality in the area, that could be affected by the project;
 - groundwater assessment criteria, including trigger levels for investigating any potentially adverse groundwater impacts;
 - a program to monitor:
 - surface water inflows into the groundwater system beneath the site;
 - the impacts of the project on:
 - the local coal seam aquifer;
 - any groundwater bores on privately-owned land that could be affected by the project; and
 - groundwater dependent ecosystems; and
 - seepage/leachate from water storages or backfilled voids (including historical coal workings) on site; and
 - a plan to respond to any exceedances of the groundwater assessment criteria;

Note: The Director-General may require the Proponent to implement upgrades and other changes identified under paragraph (b), in accordance with condition 4 of schedule 2.

VISUAL

Protection of Ridgelines

27. The Proponent shall ensure that any clearing of visually prominent ridgeline vegetation is done in a progressive manner, so as to provide for a maximum of 6 months of future quarrying operations.
28. The Proponent shall ensure that the:
- (a) eastern facing quarry benches of the Southern Extension are vegetated with native endemic understory species and trees as soon as practicable following the completion of extraction of those benches; and
 - (b) revegetation of the quarry benches is managed to ensure that a tree canopy is regenerated, as soon as practicable, to be consistent with and visually integrated into the surrounding tree canopy,
- to the satisfaction of the Director-General.

Operating Conditions

29. The Proponent shall
- (a) implement all reasonable and feasible measures to minimise the visual impacts and any off-site lighting impacts of the project; and
 - (b) maintain and improve the effectiveness of the vegetated plantings on the quarry benches, over the life of the project.

Advertising Signage

30. The Proponent shall not erect or display any advertising structure(s) or signs on the site without the written approval of the Director-General.

Note: This condition does not require approval for any business identification, traffic management, and/or safety or environmental signs.

TRANSPORT

Intersection Investigation and Wheel Wash

31. Within 6 months of the date of this approval the Proponent shall:
- (a) commission a suitably qualified and experienced person endorsed by the Director-General to undertake a road safety audit report of the intersection of York Street and Anzac Parade in consultation with Council;
 - (b) submit the report and any recommendations to the Director-General for approval; and
 - (c) implement any recommendations of the road safety audit to upgrade the intersection of York Street and Anzac Parade to the satisfaction of Council.
32. The Proponent shall install truck wheel wash facilities within 6 months of the date of this approval at all quarry exits and following such installation, must ensure that all trucks have their tyres and vehicles cleaned of mud, dirt and dust prior to exiting the site, so as to avoid tracking dirt onto public roads, to the satisfaction of the Director-General.

Operating Conditions

33. The Proponent shall construct the tunnel and conveyor under Rhondda Road to the satisfaction of Council.
34. Within 6 months of the date of this approval, the Proponent shall cease transporting quarry material by truck between the quarry pits.
35. The Proponent may only transport quarry products from the site on the designated Haulage Routes (see Appendix 4), except in circumstances where the final destination of the quarry products can only be accessed by other roads.
36. The Proponent shall ensure that all heavy vehicles:
- (a) do not exceed an on-site speed limit of 30 km per hour;
 - (b) exiting the site to the east via the bottom gate (ie to Railway Street) during the Day Shoulder period do not exceed the on-site speed limit and minimise noise as far as reasonable between Railway Street and the end of the existing engineering works; and
 - (c) entering or leaving the site have their loads covered.
37. During the AM peak period and PM peak period, the Proponent shall implement all reasonable and feasible measures to minimise project-related traffic delays and congestion at the intersection of Toronto and Five Islands Roads and along York Street, to the satisfaction of the Director-General.
38. Only trucks owned by the Proponent, its shareholders or approved contractors and fitted with airbag suspension may transport quarry products from the site between 6 pm and 6 am.

Maintenance

39. The Proponent shall regularly maintain the pavement of the on-site road that connects to Railway Street to minimise dust generation and potholes, to the satisfaction of the Director-General.

Monitoring of Product Transport

40. The Proponent shall:
- (a) keep accurate records of:
 - the amount of quarry products transported from the site (monthly and annually); and
 - all laden truck movements from the site (hourly, daily, weekly, monthly and annually); and
 - (b) publish these records on its website on a quarterly basis.

Road Signage

41. Within 6 months of the date of this approval the Proponent shall install flashing lights within Northville Drive for the 40 km school zones outside of Barnsley and Edgeworth Heights Public Schools, to the satisfaction of RMS.
42. Prior to carrying out quarrying operations under this approval, the Proponent shall install "Trucks entering" warning signs 200 metres either side of the quarry entrances on public roads.

Parking

43. The Proponent shall provide sufficient parking on-site for all project-related traffic in accordance with Council's parking codes and in consultation with Council.

Transport Management Plan

44. The Proponent shall prepare and implement a Transport Management Plan for the project to the Director-General. This plan must:
- (a) be prepared by a suitably qualified traffic consultant in consultation with the RMS and Council, and submitted to the Director-General for approval within 4 months of the date of this approval;
 - (b) include a drivers' code of conduct for the project;
 - (c) describe the measures that would be implemented to ensure:
 - drivers are aware of potential safety issues along the haulage routes in particular near schools;
 - drivers of project-related vehicles comply with the drivers' code of conduct;
 - compliance with the relevant conditions of this approval; and
 - (d) include a program to monitor the effectiveness of the implementation of these measures.

BUSHFIRE MANAGEMENT

45. The Proponent shall:
- a) ensure that the project is suitably equipped to respond to any fires on site; and
 - b) assist the Rural Fire Service, emergency services and National Parks and Wildlife Service as much as possible if there is a fire in the surrounding area.

WASTE

46. Prior to importing any Virgin Excavated Natural Material or excavated natural material to the site, the Proponent must obtain a 'resource recovery exemption' under the POEO Act and provide evidence of this approval to the Department.
47. The Proponent shall:
- (a) minimise the waste generated by the project; and
 - (b) ensure that the waste generated by the project is appropriately stored, handled, and disposed of,
- to the satisfaction of the Director-General.

48. The Proponent shall prepare and implement a Waste Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with DRE and Council, and submitted to the Director-General for approval prior within 4 months of the date of this approval;
 - identify the various waste streams of the project;
 - estimate the volumes of waste material that would be generated by the project, including recycled concrete brought on-site;
 - describe and justify the proposed strategy for disposing of this waste material, including recycled concrete brought on-site; and
 - include a program to monitor the effectiveness of these measures.

ABORIGINAL HERITAGE

Heritage Management Plan

49. The Proponent shall prepare and implement a Heritage Management Plan for the project to the satisfaction of the Director-General. This plan must:
- be prepared in consultation with Aboriginal stakeholders;
 - be submitted to the Director-General for approval prior to carrying out any development within the Northern Extension area or within 6 months of the date of this approval;
 - describe the measures that would be implemented for:
 - monitoring all new surface disturbance on site for unidentified Aboriginal objects;
 - managing the discovery of any human remains or previously unidentified Aboriginal objects on site; and
 - ensuring ongoing consultation with Aboriginal stakeholders in the conservation and management of any Aboriginal cultural heritage values on site.

LANDSCAPE

Fauna Habitat

50. The Proponent shall install 20 nest boxes for microbats, 20 nest boxes for Little Lorikeets and 30 nest boxes for Sugar Gliders. These boxes must be monitored and maintained regularly over the life of the project, and re-located or replaced if not used by targeted fauna for a period of 12 months.
51. The Proponent shall, wherever practicable, avoid clearing hollow-bearing trees. If clearing a hollow-bearing tree cannot be avoided, then its removal must be offset with an additional and comparable habitat structure within the site.

Biodiversity Offset Strategy

52. The Proponent shall implement the Biodiversity Offset Strategy, as described in the EA, summarised in Table 8 and shown conceptually in the figure in Appendix 5, to the satisfaction of the Director-General.

Table 8: Biodiversity Offset Strategy

Area	Offset Type	Minimum Size (ha)
Offset Area	Existing vegetation to be enhanced	142.6 ha
TOTAL		142.6

Long Term Security of Offsets

53. By the end of June 2014, unless the Director-General agrees otherwise, the Proponent shall enter into a conservation agreement pursuant to section 69B of the *National Parks and Wildlife Act 1974* for the Offset Area, which records the obligations assumed by the Proponent under the conditions of this approval in relation to this area, and shall register this agreement pursuant to section 69F of the *National Parks and Wildlife Act 1974*. The conservation agreement must remain in force in perpetuity.

If OEH is not prepared to enter into a conservation agreement, then to satisfy this condition, the Proponent may propose another conservation measure to secure the offset for approval by the Director-General.

Relocated Powerlines

54. The Proponent shall ensure that any relocation of existing powerlines on-site does not cause greater than minor environmental consequences within the Offset Area.

Rehabilitation Objectives

55. The Proponent shall rehabilitate the site to the satisfaction of the Director-General. This rehabilitation must be generally consistent with the proposed rehabilitation strategy in the EA and Appendix 6, and comply with the objectives in Table 9.

Table 9: Rehabilitation Objectives

Feature	Objective
Site (as a whole)	Safe, stable & non-polluting.
Surface Infrastructure	To be decommissioned and removed, unless the Director-General agrees otherwise.
Benched Quarry Walls	Landscaped and revegetated utilising native tree and understorey species, ensuring that the tree canopy is restored and integrated with the surrounding canopy to minimise visual impacts
Quarry Pit Floors and Silt Ponds	Landscaped and revegetated utilising native flora species and felled trees from clearing. Revegetation not required for existing and proposed industrial areas.
Other land affected by the project	Restore ecosystem function, including maintaining or establishing self-sustaining eco-systems comprised of: <ul style="list-style-type: none"> • native endemic species; and • a landform consistent with Figure 8 (Appendix 6) and the surrounding environment.

Progressive Rehabilitation

56. The Proponent shall rehabilitate the site progressively, that is, as soon as reasonably practicable following disturbance. All reasonable and feasible measures must be taken to minimise the total area exposed for dust generation at any time. Interim rehabilitation strategies shall be employed when areas prone to dust generation cannot yet be permanently rehabilitated.

Landscape Management Plan

57. The Proponent shall prepare and implement a Landscape Management Plan for the project to the satisfaction of the Director-General. This plan must:
- (a) be prepared in consultation with DRE, DPI and Council;
 - (b) be submitted to the Director-General for approval prior within 12 months of the date of this approval;
 - (c) describe how the implementation of the Biodiversity Offset Strategy would be integrated with the overall rehabilitation of the site;
 - (d) describe the short, medium and long term measures that would be implemented to:
 - manage remnant vegetation and habitat on site;
 - implement the Biodiversity Offset Strategy; and
 - ensure compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;
 - (e) include detailed performance and completion criteria for evaluating the performance of the Biodiversity Offset Strategy and the rehabilitation of the site, including triggering remedial action (if necessary);
 - (f) include a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:

- ensuring compliance with the rehabilitation objectives and progressive rehabilitation obligations in this approval;
 - enhancing the quality of remnant vegetation and fauna habitat;
 - restoring native endemic vegetation and fauna habitat within the biodiversity offset areas and rehabilitation area;
 - maximising the salvage of environmental resources within the approved disturbance area – including tree hollows, vegetative and soil resources – for beneficial reuse in the enhancement of the biodiversity areas or rehabilitation area;
 - collecting and propagating seed;
 - ensuring minimal environmental consequences for the local *Tetratheca juncea* population;
 - minimising the impacts on native fauna on site, including undertaking appropriate pre-clearance surveys;
 - controlling weeds and feral pests;
 - controlling erosion;
 - controlling access; and
 - bushfire management;
- (g) include a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;
- (h) identify the potential risks to successful implementation of the Biodiversity Offset Strategy and rehabilitation of the site, and include a description of the contingency measures that would be implemented to mitigate against these risks; and
- (i) include details of who would be responsible for monitoring, reviewing, and implementing the plan.

Conservation & Rehabilitation Bond

58. Within 6 months of the approval of the Landscape Management Plan, the Proponent shall lodge a Conservation and Rehabilitation Bond with the Department to ensure that the Biodiversity Offset Strategy and the rehabilitation of the site is implemented in accordance with the performance and completion criteria set out in the Landscape Management Plan. The sum of the bond shall be determined by:
- (a) calculating the cost of implementing the Biodiversity Offset Strategy over the next 3 years;
 - (b) calculating the cost of rehabilitating the site, taking into account the likely surface disturbance over the next 3 years of quarrying operations; and
 - (c) employing a suitably qualified quantity surveyor or other expert to verify the calculated costs,
- to the satisfaction of the Director-General.

Notes:

- *If capital and other expenditure required by the Landscape Management Plan is largely complete, the Director-General may waive the requirement for lodgement of a bond in respect of the remaining expenditure.*
- *If the Biodiversity Offset Strategy and rehabilitation of the site area are completed to the satisfaction of the Director-General, then the Director-General will release the bond. If the Biodiversity Offset Strategy and rehabilitation of the site are not completed to the satisfaction of the Director-General, then the Director-General will call in all or part of the bond, and arrange for the completion of the relevant works.*

59. Within 3 months of each Independent Environmental Audit (see condition 9 of schedule 5), the Proponent shall review, and if necessary revise, the sum of the Conservation and Rehabilitation Bond to the satisfaction of the Director-General. This review must consider the:
- (a) effects of inflation;
 - (b) likely cost of implementing the Biodiversity Offset Strategy and rehabilitating the site (taking into account the likely surface disturbance over the next 3 years of the project); and
 - (c) performance of the implementation of the Biodiversity Offset Strategy and rehabilitation of the site to date.

SCHEDULE 4 ADDITIONAL PROCEDURES

NOTIFICATION OF LANDOWNERS

1. As soon as practicable after obtaining monitoring results showing an:
 - (a) exceedance of any relevant criteria in schedule 3, the Proponent shall notify affected landowners in writing of the exceedance, and provide regular monitoring results to each affected landowner until the project is again complying with the relevant criteria; and
 - (b) an exceedance of the relevant air quality criteria in schedule 3, the proponent shall send a copy of the NSW Health fact sheet entitled "*Mine Dust and You*" (as may be updated from time to time) to the affected landowners and/or existing tenants of the land.

INDEPENDENT REVIEW

2. If an owner of privately-owned land considers the project to be exceeding the relevant criteria in schedule 3, then he/she may ask the Director-General in writing for an independent review of the impacts of the project on his/her land.

If the Director-General is satisfied that an independent review is warranted, then within 2 months of the Director-General's decision the Proponent shall:

- (a) commission a suitably qualified, experienced and independent expert, whose appointment has been approved by the Director-General, to:
 - consult with the landowner to determine his/her concerns;
 - conduct monitoring to determine whether the project is complying with the relevant criteria in schedule 3; and
 - if the project is not complying with these criteria, then identify the measures that could be implemented to ensure compliance with the relevant criteria; and
 - (b) give the Director-General and landowner a copy of the independent review.
3. If the independent review determines that the project is complying with the relevant criteria in schedule 3, then the Proponent may discontinue the independent review with the approval of the Director-General.

If the independent review determines that the project is not complying with the relevant criteria in schedule 3, then the Proponent shall:

- (a) implement all reasonable and feasible mitigation measures, in consultation with the landowner and appointed independent expert, and conduct further monitoring until the project complies with the relevant criteria; or
- (b) secure a written agreement with the landowner to allow exceedances of the relevant criteria, to the satisfaction of the Director-General.

SCHEDULE 5

ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING

ENVIRONMENTAL MANAGEMENT

Environmental Management Strategy

1. The Proponent shall prepare and implement an Environmental Management Strategy for the project to the satisfaction of the Director-General. This strategy must:
 - (a) be submitted to the Director-General for approval with 6 months of the date of this approval;
 - (b) provide the strategic framework for environmental management of the project;
 - (c) identify the statutory approvals that apply to the project;
 - (d) describe the role, responsibility, authority and accountability of all key personnel involved in the environmental management of the project;
 - (e) describe the procedures that would be implemented to:
 - keep the local community and relevant agencies informed about the operation and environmental performance of the project;
 - receive, handle, respond to, and record complaints;
 - resolve any disputes that may arise during the course of the project;
 - respond to any non-compliance; and
 - respond to emergencies; and
 - (f) include:
 - copies of any strategies, plans and programs approved under the conditions of this approval; and
 - a clear plan depicting all the monitoring required to be carried out under the conditions of this approval.

Adaptive Management

2. The Proponent shall assess and manage project-related risks to ensure that there are no exceedances of the criteria and/or performance measures in schedule 3. Any exceedance of these criteria and/or performance measures constitutes a breach of this approval and may be subject to penalty or offence provisions under the EP&A Act or EP&A Regulation.

Where any exceedance of these criteria and/or performance measures has occurred, the Proponent shall, at the earliest opportunity:

- (a) take all reasonable and feasible measures to ensure that the exceedance ceases and does not recur;
- (b) consider all reasonable and feasible options for remediation (where relevant) and submit a report to the Department describing those options and any preferred remediation measures or other course of action; and
- (c) implement remediation measures as directed by the Director-General, to the satisfaction of the Director-General.

Management Plan Requirements

3. The Proponent shall ensure that the Management Plans required under this approval are prepared in accordance with any relevant guidelines, and include:
 - (a) detailed baseline data;
 - (b) a description of:
 - the relevant statutory requirements (including any relevant approval, licence or lease conditions);
 - any relevant limits or performance measures/criteria; and
 - the specific performance indicators that are proposed to be used to judge the performance of, or guide the implementation of, the project or any management measures;
 - (c) a description of the measures that would be implemented to comply with the relevant statutory requirements, limits, or performance measures/criteria;
 - (d) a program to monitor and report on the:
 - impacts and environmental performance of the project; and
 - effectiveness of any management measures (see (c) above);

- (e) a contingency plan to manage any unpredicted impacts and their consequences;
- (f) a program to investigate and implement ways to improve the environmental performance of the project over time;
- (g) a protocol for managing and reporting any:
 - incidents;
 - complaints;
 - non-compliances with statutory requirements; and
 - exceedances of the impact assessment criteria and/or performance criteria; and
- (h) a protocol for periodic review of the plan.

Note: The Director-General may waive some of these requirements if they are unnecessary or unwarranted for particular management plans.

Annual Review

- 4. By the end of March each year, the Proponent shall review the environmental performance of the project to the satisfaction of the Director-General. This review must:
 - (a) describe the development (including rehabilitation) that was carried out in the previous calendar year, and the development that is proposed to be carried out over the current calendar year;
 - (b) include a comprehensive review of the monitoring results and complaints records of the project over the previous calendar year, which includes a comparison of these results against:
 - the relevant statutory requirements, limits or performance measures/criteria;
 - the monitoring results of previous years; and
 - the relevant predictions in the EA;
 - (c) identify any non-compliance over the last year, and describe what actions were (or are being) taken to ensure compliance;
 - (d) identify any trends in the monitoring data over the life of the project;
 - (e) identify any discrepancies between the predicted and actual impacts of the project, and analyse the potential cause of any significant discrepancies; and
 - (f) describe what measures will be implemented over the current calendar year to improve the environmental performance of the project.

Revision of Strategies, Plans & Programs

- 5. Within 3 months of the submission of an:
 - (a) annual review under condition 4 above;
 - (b) incident report under condition 7 below;
 - (c) audit report under condition 9 below; and
 - (d) any modifications to this approval,the Proponent shall review, and if necessary revise, the strategies, plans, and programs required under this approval to the satisfaction of the Director-General.

Note: This is to ensure the strategies, plans and programs are updated on a regular basis, and incorporate any recommended measures to improve the environmental performance of the project.

Community Consultative Committee

- 6. The Proponent shall establish and operate a Community Consultative Committee (CCC) for the project to the satisfaction of the Director-General. This CCC must be operated in general accordance with the *Guidelines for Establishing and Operating Community Consultative Committees for Mining Projects* (Department of Planning, 2007, or its latest version), and be operating within four months of the date of this approval.

Notes:

- *The CCC is an advisory committee. The Department and other relevant agencies are responsible for ensuring that the Proponent complies with this approval.*
- *In accordance with the guideline, the Committee should comprise an independent chair and appropriate representation from the Proponent, Council, recognised environmental groups and the local community.*

REPORTING

Incident Reporting

7. The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent shall notify the Director-General and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.

Regular Reporting

8. The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.

INDEPENDENT ENVIRONMENTAL AUDIT

9. Within a year of the commencement of development on site under this approval, and every 3 years thereafter, unless the Director-General directs otherwise, the Proponent shall commission and pay the full cost of an Independent Environmental Audit of the project. This audit must:
- be conducted by suitably qualified, experienced and independent team of experts whose appointment has been endorsed by the Director-General;
 - include consultation with the relevant agencies;
 - assess the environmental performance of the project and whether it is complying with the relevant requirements in this approval and any relevant EPL and/or Water License (including any assessment, plan or program required under these approvals);
 - review the adequacy of any approved strategy, plan or program required under the these approvals; and
 - recommend measures or actions to improve the environmental performance of the project, and/or any assessment, plan or program required under these approvals.

Note: This audit team must be led by a suitably qualified auditor and include experts in any fields specified by the Director-General.

10. Within 3 months of commissioning this audit, or as otherwise agreed by the Director-General, the Proponent shall submit a copy of the audit report to the Director-General, together with its response to any recommendations contained in the audit report.

ACCESS TO INFORMATION

11. Within 4 months of the date of this approval, the Proponent shall:
- make the following information publicly available on its website:
 - the EA;
 - current statutory approvals for the project;
 - approved strategies, plans or programs;
 - a summary of the monitoring results of the project, which have been reported in accordance with the various plans and programs approved under the conditions of this approval;
 - a complaints register, updated on a quarterly basis;
 - minutes of CCC meetings;
 - copies of any annual reviews (over the last 5 years);
 - any independent environmental audit, and the Proponent's response to the recommendations in any audit; and
 - any other matter required by the Director-General; and
 - keep this information up-to-date, to the satisfaction of the Director-General.

APPENDIX 1
PROJECT SITE & LAND REFERENCE PLAN

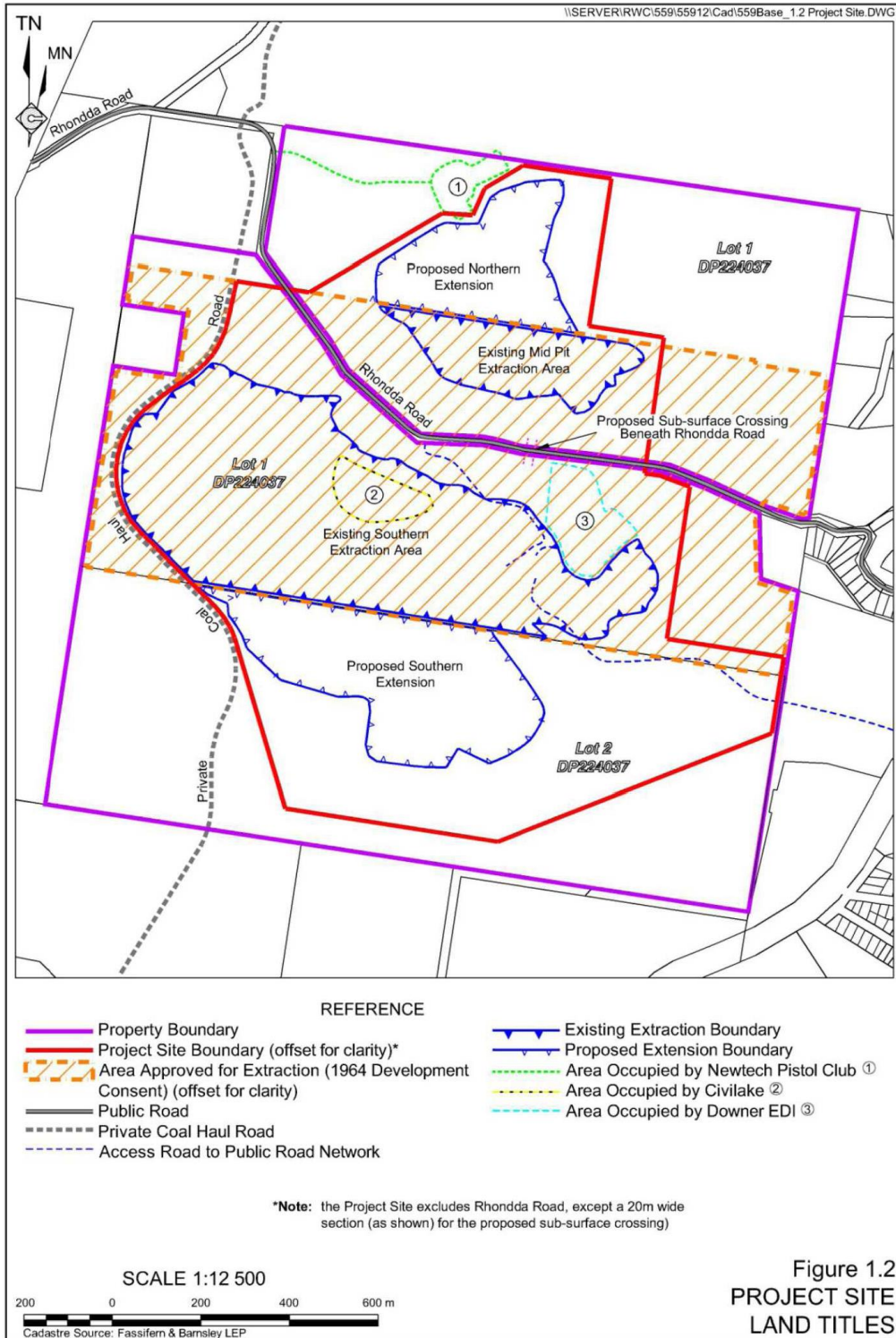


Figure 1.2
PROJECT SITE
LAND TITLES

Figure 1: Property Descriptions (Lot and DP)

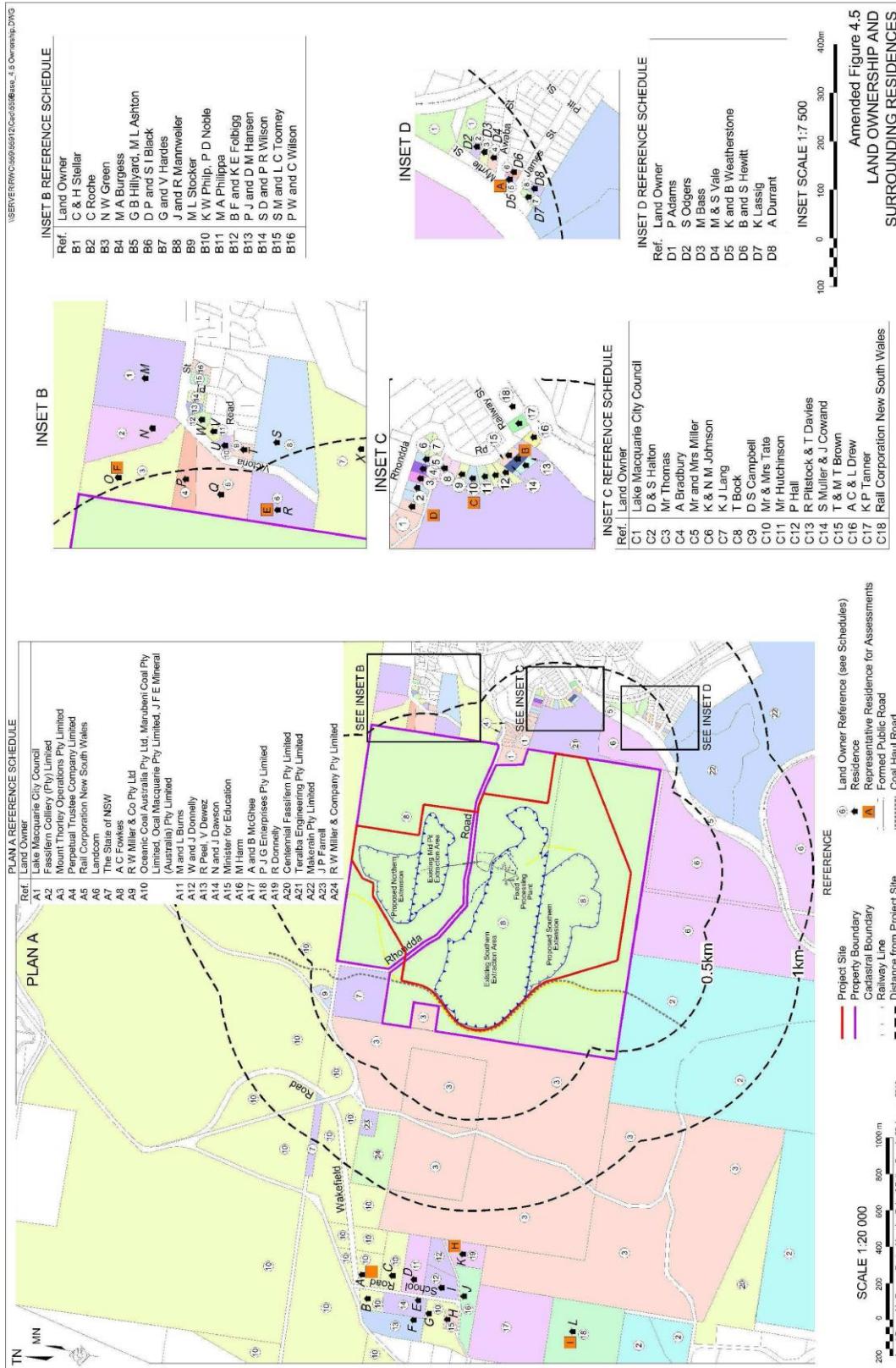


Figure 2: Site and Nearest Residential Receivers

APPENDIX 2
PROJECT LAYOUT PLANS



Figure 3: Extraction Area Dimensions and Site Features

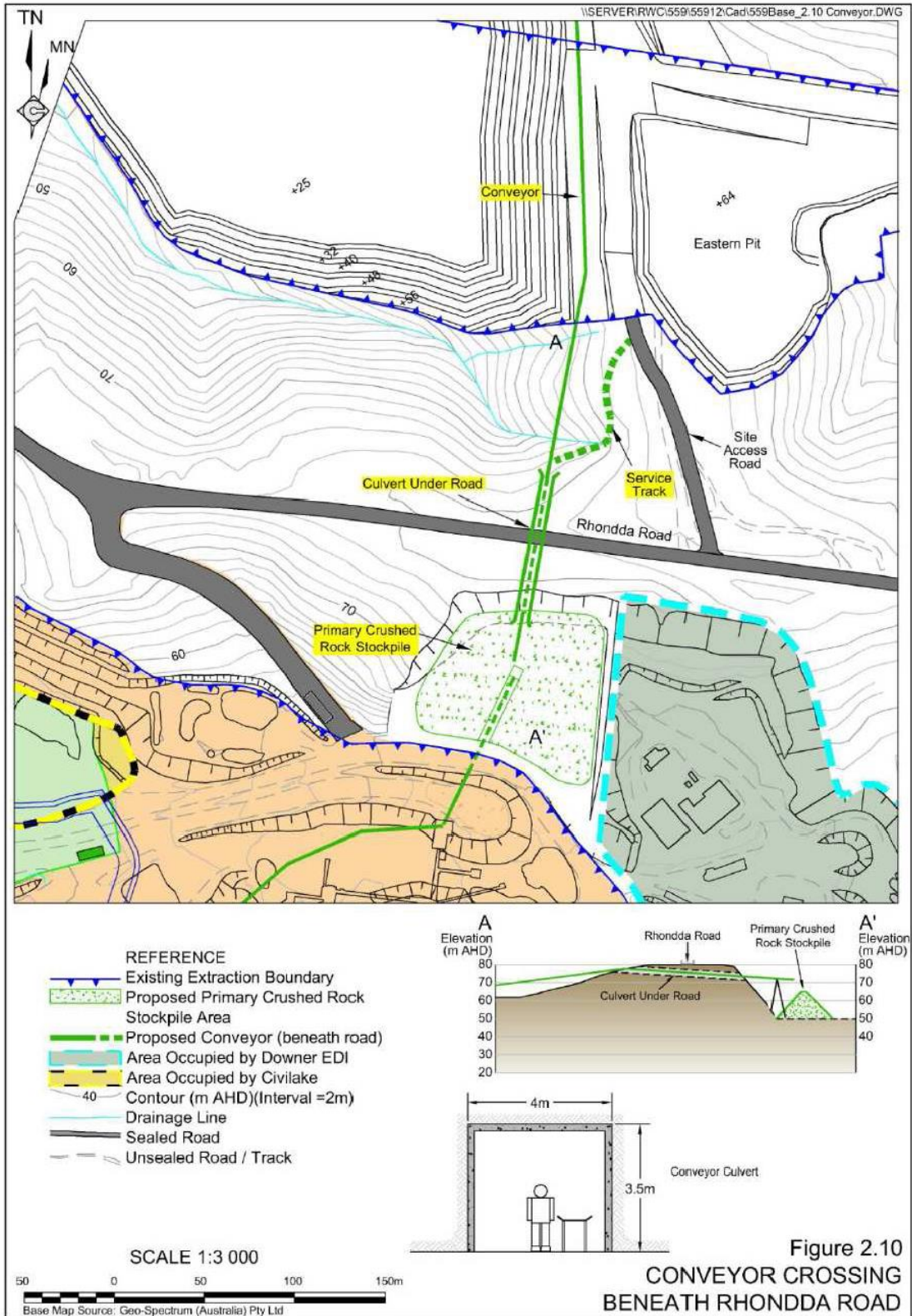


Figure 4: Conveyor crossing beneath Rhondda Road

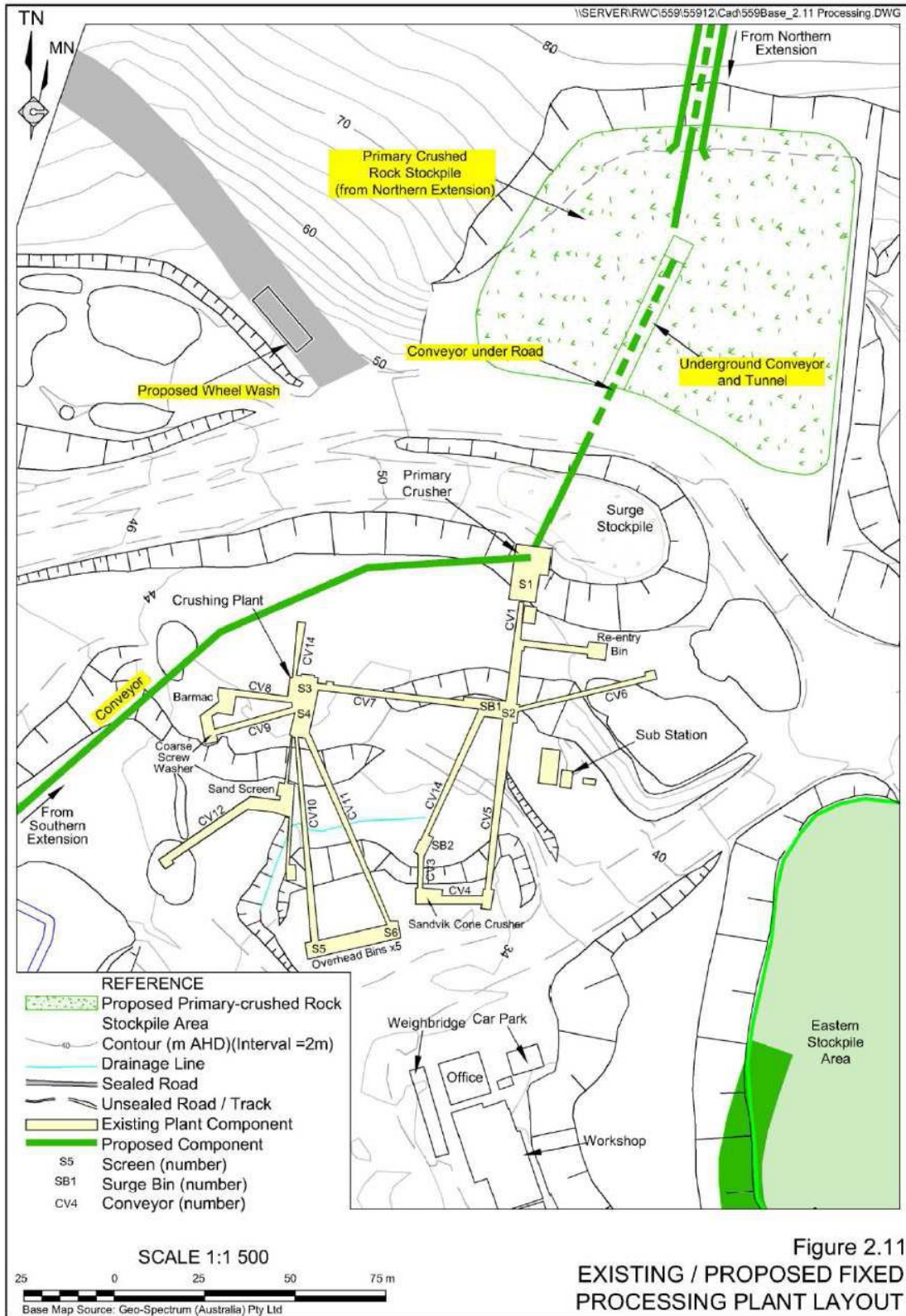


Figure 5: Existing / Proposed Fixed Processing Plant Layout

**APPENDIX 3
STATEMENT OF COMMITMENTS**

Desired Outcome	Action	Timing
1. Activities and Operations		
All approved activities are undertaken in the area(s) nominated on the approved plans and figures (unless moved slightly to avoid individual trees).	Clearly mark the boundary of each area of activity, i.e. the boundary of the Southern and Northern Extensions.	Prior to the commencement of quarrying operations.
2. Operating Hours		
Management of operations in accordance with the approved operating hours. (Note: No activities and operations are proposed on public holidays).	<p>2.1 Undertake extraction and processing activities south of Rhondda Road between 6:00am and 8:00pm on Monday to Fridays and 6:00am to 2:00pm on Saturdays.</p> <p>2.2 Undertake extraction and processing activities north of Rhondda Road between 7:00am and 8:00pm on Monday to Friday and 7:00am and 2:00pm on Saturdays.</p> <p>2.3 Undertake product transportation activities 24hrs/day between 4:00am Monday to 6:00pm Saturday.</p> <p>2.4 Undertake all blasts between 10:00am and 4:00pm Monday to Friday.</p> <p>2.5 Restrict activities undertaken outside the hours identified in Commitments 2.1 and 2.2 to routine, low noise activities such as oil changes, minor welding and servicing of equipment.</p> <p>2.6 The nominated operating hours above in Action 2.3 do not apply to the delivery of material if that material is requested by police, any emergency service or Council. Details of the circumstances of these requests would be provided to the Director-General and EPA within a reasonable period of the request(s).</p>	<p>During operations.</p> <p>During operations.</p> <p>During operations.</p> <p>During operations.</p> <p>During operations.</p>
3. Waste Management		
Minimisation of general waste creation and maximisation of recycling, wherever possible.	<p>3.1 Place all paper and general wastes originating from the site office, together with routine maintenance consumables from the daily servicing of equipment in garbage bins located adjacent to the site office and workshop.</p> <p>3.2 Segregate waste into recyclables and non-recyclable materials for removal by a licensed contractor.</p>	<p>Ongoing.</p> <p>Ongoing.</p>
Minimisation of the potential risk of environmental impact due to waste creation, storage and/or disposal.	<p>3.3 Organise the regular collection of industrial wastes.</p> <p>3.4 Store waste oils and greases within the workshop area in either self-bunding containers or within suitably contained areas.</p>	<p>Monthly or as needs basis.</p> <p>Ongoing.</p>

Desired Outcome	Action	Timing
4. Security and Safety		
All members of the public are safe when near Teralba Quarry.	4.1 Construct and maintain the perimeter fence around the Northern Extension.	Prior to commencement of clearing works.
	4.2 Maintain lockable gates at all entry/exit points. Lock gates outside of operational hours.	Ongoing.
	4.3 Erect security warning signs at strategic locations around and within the Project Site. The signs would identify the presence of earthmoving equipment, deep excavations and steep slopes.	Ongoing.
	4.4 Continue to induct employees in safe working practices and hold regular follow-up safety meetings and reviews.	Ongoing.
	4.5 Install bunds along the margins of all internal haul roads where those roads are positioned adjacent to steep slopes, adjacent to the boundary of the extraction area and adjacent to all other steep slopes.	Ongoing.
	4.6 Ensure all trucks from the Project Site are driven in a safe and courteous manner in accordance with Metromix's Driver Code of Conduct.	Ongoing.
5. Rehabilitation and Biodiversity Offset Management		
Create a stable final landform able to support a range of final land uses focused upon ecological corridors and ongoing industrial uses.	5.1 Retain 142.6ha of existing vegetation and remnant understorey vegetation as a legally protected biodiversity offset.	In perpetuity
Maintenance of long term ecological values within the Final Biodiversity Offset	5.2 Ensure that 142.6ha of retained vegetation within the Biodiversity Offset is legally protected through a Conservation Agreement pursuant to Section 69B of the <i>National Parks and Wildlife Act 1974</i> .	By 30 June 2014.
6. Groundwater		
Prevention of groundwater contamination.	6.1 Securely store all hydrocarbon products within designated and bunded areas – see Action 16.11.	Ongoing
	6.2 Refuel and maintain all earthmoving equipment within designated areas – see Action 16.11.	Ongoing
	6.3 Prepare a Groundwater Management Plan, including trigger levels for actions – see Action 16.3.	Ongoing
	6.4 Prepare a Spill Management Plan to address potentially significant hydrocarbon spills – see Action 16.11.	Ongoing
Continuous monitoring of groundwater throughout the life of the Project.	6.5 Develop and implement a monitoring program as part of the Soil and Water Management Plan.	Within 6 months of the receipt of project approval.

Desired Outcome	Action	Timing
6. Groundwater (Cont'd)		
Continuous monitoring of groundwater throughout the life of the Project. (Cont'd)	6.6 Monitor water quality at the Mine Adit Dam for pH levels, electrical conductivity, suspended solids, and oil and grease.	Monthly (subject to review).
	6.7 Record flows/discharges from the Mine Adit Dam as well as quarry water usage.	Continuous.
	6.8 Review monitoring results to identify trends which may indicate impacts and allow mitigation measures to be implemented, if required.	Annually.
	6.9 Ensure all monitoring data is incorporated into each Annual Environment Management Report for the Teralba Quarry.	Annually.
7. Surface Water		
Maintenance of surface water quality.	7.1 Conduct site clearing activities in accordance with the Blue Book (Landcom, 2004) guidelines for erosion and sediment control.	Ongoing.
	7.2 Establish a regular monitoring program to review the effectiveness of all erosion and sediment control mitigation measures.	Prior to commencement of clearing works.
	7.3 Incorporate an update of the current Water Management Plan (GHD, 2007) into the Soil and Water Management Plan to take into account the proposed Southern and Northern Extensions.	Within 6 months of date of project approval.
	7.4 Ensuring any off-site discharge is monitored and reported in accordance with Environment Protection Licence 536.	As Required.
	7.5 Conduct site clearing activities in accordance with the Blue Book (Landcom, 2004) guidelines for erosion and sediment control.	Ongoing.
	7.6 Establish a regular monitoring program to review the effectiveness of all erosion and sediment control mitigation measures.	Prior to commencement of clearing works.
	7.7 Incorporate an update of the current Water Management Plan (GHD, 2007) into the Soil and Water Management Plan to take into account the proposed Southern and Northern Extensions.	Within 6 months of date of project approval.
	7.8 Ensuring any off-site discharge is monitored and reported in accordance with Environment Protection Licence 536.	As Required.
Capture of sediment-laden water flows from project-related disturbance.	7.9 Provide sufficient storage during all stages of works to prevent discharge off-site of sediment-laden water in accordance with the Blue Book (Landcom, 2004) guidelines for sediment retention dams.	Ongoing.
	7.10 Inspect all sediment dams and maintain as necessary (keep records).	Monthly or following rainfall exceeding 100mm in 2 days.

Desired Outcome	Action	Timing
7. Surface Water (Cont'd)		
Capture of sediment-laden water flows from project-related disturbance. (Cont'd)	7.11 Remove accumulated sediment from sediment dams when storage capacity reduced by 25% - document activity in maintenance records.	Following routine inspection.
Prevention of hydrocarbon contamination of water on the Project Site.	7.12 Securely store all hydrocarbon products within designated and bunded areas.	Ongoing.
	7.13 Refuel all earthmoving equipment within designated areas (with spill control).	Ongoing.
Separation of groundwater and surface water flows	7.14 Construct a drain from Dam B directly to the nearby watercourse to divert surface flows away from the Mine Adit Dam.	Within 3 months of Project Approval or following advice from NOW whichever occurs sooner.
8. Terrestrial Flora and Fauna		
Minimisation of impacts on flora and fauna within the Project Site.	8.1 Prepare and implement a Site Vegetation Management Plan (as part of the overall Landscape Management Plan – see Commitment 16.7.	Within 12 months of the receipt of project approval.
	8.2 Clearly define the <i>Tetratheca juncea</i> sub-populations to be retained.	For the life of the Project.
	8.3 Continue the established rehabilitation practices in appropriate areas.	Ongoing.
	8.4 Retain the extracted topsoil and vegetation within the immediate area of <i>Tetratheca juncea</i> populations and relocate to easement locations.	During clearing.
	8.5 Transfer biomass directly from vegetation clearing operations to rehabilitation areas. If it is not possible to transfer directly, stockpile material.	Ongoing.
	8.6 Control noxious weeds at all times in accordance with a Weed Management Plan (to be incorporated into the site Vegetation Management Plan).	Following approval of Landscape Management Plan (see Action 16.7) and then ongoing.
	8.7 Install species specific nesting boxes for fauna species displaced following clearing activities, re 20 boxes for microbats, 20 boxes for Little Lorikeets and 30 boxes for Sugar Gliders.	Prior to commencement of activities in the Northern Extension.
9. Traffic and Transport		
Transport operations are undertaken with minimal impact on other road users and residents.	9.1 Limit laden quarry-related truck movement numbers through Teralba: — 9 per hour; and — 85 per day. 9.2 Ensure that no product trucks from Teralba Quarry travel eastward through Teralba between 6:00pm and 6:00am.	Ongoing.

Desired Outcome	Action	Timing
9. Traffic and Transport (Cont'd)		
	9.3 Ensure all vehicles exiting the Project Site pass through a wheel-wash facility to remove dust generating material.	Prior to removal of product from within the extensions.
	9.4 Provide a contribution to Lake Macquarie City Council during the ongoing life of the quarry if a suitable project approval is granted.	Quarterly.
	9.5 Prepare, implement and enforce 'Drivers Code of Conduct' addressing: <ul style="list-style-type: none"> – times that trucks can operate, especially through Teralba – speed limits; – duty of care to other drivers and pedestrians; – complaints procedure; – covering loads; and – avoidance of exhaust brakes. 	Prepare within 4 months of receipt of project approval.
Transport operations are undertaken with minimal impact on other road users and residents. (Cont'd)	9.6 Undertake all transport activities in accordance with the project approval and Environment Protection Licence 536.	Ongoing.
	9.7 Ensure that only trucks owned by Metromix, or its shareholders and those of accredited contractors using airbag suspension and other noise controls are used to transport products between 10:00pm and 6:00am.	
	9.8 Ensure that all project-related vehicles are regularly serviced to ensure engine efficiencies are maintained at a standard that limits truck noise.	
10. Noise and Vibration		
The Project is designed to minimise and/or mitigate noise emissions received at surrounding residences and other sensitive receivers.	10.1 Ensure all mobile earthmoving equipment used on site is not fitted with high-frequency reversing alarms and is regularly serviced.	Ongoing.
	10.2 Ensure all earthmoving equipment used on site (including temporary equipment) have sound power levels and frequency spectra consistent with those nominated in Section 6 of Spectrum Acoustics (2011).	When new or temporary equipment is brought to site.
All activities are undertaken in such a manner as to reduce the noise level generated and minimise impacts on surrounding landholders and/or residents.	10.3 Ensure that the eastern side of the Southern Extension is extracted in such a manner that the active extraction face is retained on the eastern face thereby providing a topographic barrier between operating earthmoving equipment and residences to the east.	Ongoing throughout the extraction operations in the Southern Extension area.
	10.4 Construct a 5m high bund on the eastern edge of the Mid Pit Extraction Area.	During Mid Pit Extraction operations.

Desired Outcome	Action	Timing
10. Noise and Vibration (Cont'd)		
All activities are undertaken in such a manner as to reduce the noise level generated and minimise impacts on surrounding landholders and/or residents. (Cont'd)	10.5 Limit transportation noise by ensuring: <ul style="list-style-type: none"> – all transport vehicles comply with the RTA's noise limits at all times; – only trucks fitted with airbag suspension be used to transport products from the quarry between 10:00pm and 6:00am; and – drivers comply with Code of Conduct. 	Ongoing Ongoing Ongoing
	10.6 Commission a noise monitoring program that comprises: <ul style="list-style-type: none"> – attended noise monitoring for the Southern and Northern Extensions; and – General noise monitoring. 	Within the first 3 months of operations in the Southern and Northern Extensions Biannually for the first year of operation in the Southern and Northern Extensions, and further monitoring when substantiated complaints are filed.
	10.7 Include a summary of all noise monitoring results in the AEMR.	Annually.
	10.8 Ensure all trucks departing the Project Site via the bottom gate travel at speeds <15km/hr.	Ongoing.
	10.9 Review blast designs and modify, if required.	When blasting within 500m of any residence.
11. Air Quality		
Site activities are undertaken without exceeding DECCW air quality criteria or goals.	11.1 Minimise clearing ahead of extraction activities	Ongoing.
	11.2 Minimise the construction of minor roads and access tracks for soil stripping, extraction operations and rehabilitation.	Ongoing.
	11.3 Operate a water truck to manage dust suppression during periods of extended dry weather and/or high winds, or when dust nuisance has the potential to occur as a result of quarrying activities.	Ongoing.
	11.4 Stockpile material in sheltered locations away from sensitive receptors	Ongoing.
	11.5 Shield and/or suppress dust on conveyors and transfer points.	Ongoing.

Desired Outcome	Action	Timing
11. Air Quality (Cont'd)		
Site activities are undertaken without exceeding DECCW air quality criteria or goals. (Cont'd)	11.6 Limit internal road dust lift off by: <ul style="list-style-type: none"> – surfacing (and grading local) roads with appropriate materials; – enforcing a 30km/hr speed limit on all internal roads; – limiting load sizes to ensure that product does not extend over truck sidewalls; and – avoiding spillage during truck loading. 	Ongoing.
	11.7 Minimise dump heights from trucks, front-end loaders and conveyors.	Ongoing.
	11.8 Schedule blasts so that they do not occur during high wind situations.	Ongoing.
	11.9 Cease or modify activities on dry windy days when dust plumes are visible.	Ongoing.
	11.10 Water exposed areas not covered by gravel under dry and windy conditions when dust plumes are visible.	Ongoing.
	11.11 Adopt a complaints management system where all complaints are dealt with through investigation and implementation of corrective treatments.	Ongoing.
	11.12 Minimise truck queuing, unnecessary idling of trucks and unnecessary trips through logistical planning, where possible.	Ongoing.
	11.13 Ensure the on-site wheel wash reduces mud tracking along Railway Street.	Ongoing.
	11.14 Remove any mud tracking on Rhondda Road as a result of quarry movements.	Ongoing.
	11.15 Prepare and implement a Dust Management Plan for the quarry.	Within 4 months of the receipt of project approval.
Reduce the impact of Greenhouse Gas emissions from project related activities.	11.16 Minimise the impacts of greenhouse gases relating from diesel consumption by: <ul style="list-style-type: none"> – minimising the use of haul trucks through use of an overland conveyor; – reduce vehicle idling time; – maintaining optimum tyre pressures; and – the optimisation of haul routes to reduce transportation distance from the extraction areas. 	Ongoing.

Desired Outcome	Action	Timing
11. Air Quality (Cont'd)		
Record and monitor the local environment regarding dust impacts.	11.17 Minimise the impacts of greenhouse gases relating from electricity consumption by: <ul style="list-style-type: none"> – ensuring the most efficient crusher and other processing plant technology is used; – regularly inspecting the daily operations of lighting; and – implementing solar-powered lighting, where possible. 	Ongoing.
	11.18 Continue to monitor dust impacts through; <ul style="list-style-type: none"> – the existing five deposited dust gauges; and – on-site meteorological monitoring to record relevant parameters. 	Ongoing.
12. Visibility		
Reduce the impact of the Project on the visual amenity of private and public vantage points.	12.1 Ensure all vegetation is maintained outside the Southern and Northern Extensions to provide long term shielding.	Ongoing.
	12.2 Sequence extraction activities in the Southern Extension to limit exposure of western faces until vegetation is well established.	Years 3 to 11 (approx).
	12.3 Progressively establish vegetation on extraction faces at 50mAHD and above in western section of the Southern Extension.	Years 3 to 11 (approx).
	12.4 Advance extraction in the eastern section of the Southern Extension in strips parallel to north-south faces.	Years 22 to 30 (approx).
	12.5 Include Annual photographs of the progressive rehabilitation of quarry benches in each AEMR.	
13. Heritage		
Provide appropriate protection to existing and future identified Aboriginal artefacts.	13.1 Halt all works in the immediate area if cultural objects are found and contact a suitably qualified archaeologist and Aboriginal community representative.	Ongoing.
	13.2 Halt all works in the immediate area if human remains are found and contact NSW Police, Aboriginal community representative and OEH.	Ongoing.
	13.3 Maintain reasonable efforts to avoid impacts to Aboriginal cultural heritage values at all stages of the development works	Ongoing.
	13.4 Invite representatives of Local Aboriginal stakeholders to monitor initial ground disturbance activities.	Prior to soil stripping campaigns.
	13.5 Develop an Aboriginal Culture Educational Program for the induction of all personnel and contractors involved in the construction activities on site. Records are to be kept of which staff/contractors were inducted and when for the duration of the project. The program would be developed and implemented in collaboration with the local Aboriginal community.	Prior to first soil stripping campaign and then ongoing.

Desired Outcome	Action	Timing
13. Heritage (Cont'd)		
Provide appropriate protection to any non-Aboriginal artefacts identified in operational areas.	13.6 Halt all works in the immediate area if any non-Aboriginal artefacts are found and notify the Heritage Council of NSW.	Ongoing
14. Soils		
Prevent excessive soil deterioration during stripping and transportation.	14.1 Undertake soil stripping within slightly moist condition and avoid excessively wet or dry conditions.	During soil stripping operations.
	14.2 Place stripped soil directly onto reshaped overburden or dedicated stockpile area.	During soil stripping operations.
	14.3 Remove soil through grading or pushing soil into windrows with graders or dozers for later collection for loading into rear dump trucks by front-end loaders.	During stripping and transport operations.
Retention of soil viability until use in rehabilitation.	14.4 Leave the surface of soil stockpiles in as coarsely structured a condition as possible in order to promote infiltration and minimise erosion until vegetation is established.	Immediately following stockpile construction.
	14.5 Maintain a maximum stockpile height of 3m. Clayey soils would be stored in lower stockpiles for shorter periods of time compared to coarser textured sandy soils.	During staged Rehabilitation stages.
	14.6 Seed soil stockpiles with sterile cover crop (and limited fertiliser) as soon as possible where stockpiling is planned.	Immediately following stockpile construction.
	14.7 Maintain an inventory of available soil to ensure adequate topsoil materials are available for planned rehabilitation activities.	Ongoing.
	14.8 Assess soil stockpiles for weed infestation to determine if stockpiles require weed removal applications before being re-spread onto reshaped overburden.	During staged Rehabilitation stages.
Achieve a good soil cover for long term rehabilitation.	14.9 Spread topsoil to a minimum depth range of 0.1 m (steep slopes) to 0.2m (flatter areas). Specific topsoil respreading depths for different post mining landform elements would be specified in the Landscape Management Plan.	During staged Rehabilitation stages.
15. Bushfire Hazard		
Avoidance of any fires on site, particularly in native vegetation.	15.1 Adopt appropriate controls during re-fuelling.	Ongoing.
	15.2 Ensure fire extinguishers are fitted to all site vehicles.	Ongoing.
	15.3 Incorporate a Bushfire Management Plan in the overall Emergency Response Plan for the quarry.	Within 6 months of the receipt of project approval.

Desired Outcome	Action	Timing
16. Documentation and Further Approvals		
To provide site personnel with the necessary guidance on the expectations of Metromix management and the NSW Government and LMCC to achieve the required level of environmental performance.	16.1 Environmental Management Strategy.	Within 6 months of the receipt of project approval.
	16.2 Environmental Management Plan (EMP). Focus on the next 5 years.	Within 6 months of receipt of project approval.
	16.3 Soil and Water Management Plan. (Incorporating management, monitoring and contingency plans for soils, surface water and groundwater).	Within 6 months of the receipt of project approval.
	16.4 Noise and Blast Management Plan. (Incorporating a blast and noise monitoring component.)	Within 4 months of the receipt of project approval.
	16.5 Air Quality Management Plan. (Incorporating an air quality monitoring component.)	Within 4 months of receipt of project approval.
	16.6 Transport Management Plan.	Within 4 months of receipt of project approval.
	16.7 Landscape Management Plan. (Incorporating a Vegetation Management Plan for site rehabilitation and the on-site Biodiversity offset.)	Within 12 months of the receipt of project approval.
	16.8 Extraction Management Plan (for operations within 5 vertical metres of the Great North Coal Seam).	Prior to commencing any extraction within 5 vertical metres of the Great Northern Coal Seam.
	16.9 Heritage Management Plan.	Within 4 months of the receipt of project approval.
	16.10 Annual Environmental Management Report (AEMR).	Annually (by 31 March each year covering the previous calendar month) .
	16.11 Hydrocarbon Management Plan. (Incorporating the storage and use of fuel and spill management.)	Within 6 months of receipt of approval.
	16.12 Annual Production Statistics to the DTIRIS (Division of Resources and Energy).	Annually (by 31 July).
	16.13 Geotechnical Assessments and relevant design drawings for site structures and buildings (for submission to the Mines Subsidence Board).	Prior to construction of site infrastructure and buildings.

Desired Outcome	Action	Timing
16. Documentation and Further Approvals (Cont'd)		
Ensure planning is undertaken sufficiently ahead of quarry closure to achieve a smooth transition to the subsequent land uses	16.14 Prepare a Quarry Closure and Final Land Use Plans for the land within the Project Site that is to be developed for purposes other than nature conservation. The Plans would be prepared in consultation with the Lower Macquarie City Council	3 years prior to cessation of extraction north of Rhondda Road (approximately 2031) and south of Rhondda Road (approximately 2039).

APPENDIX 4 TRANSPORT ROUTES

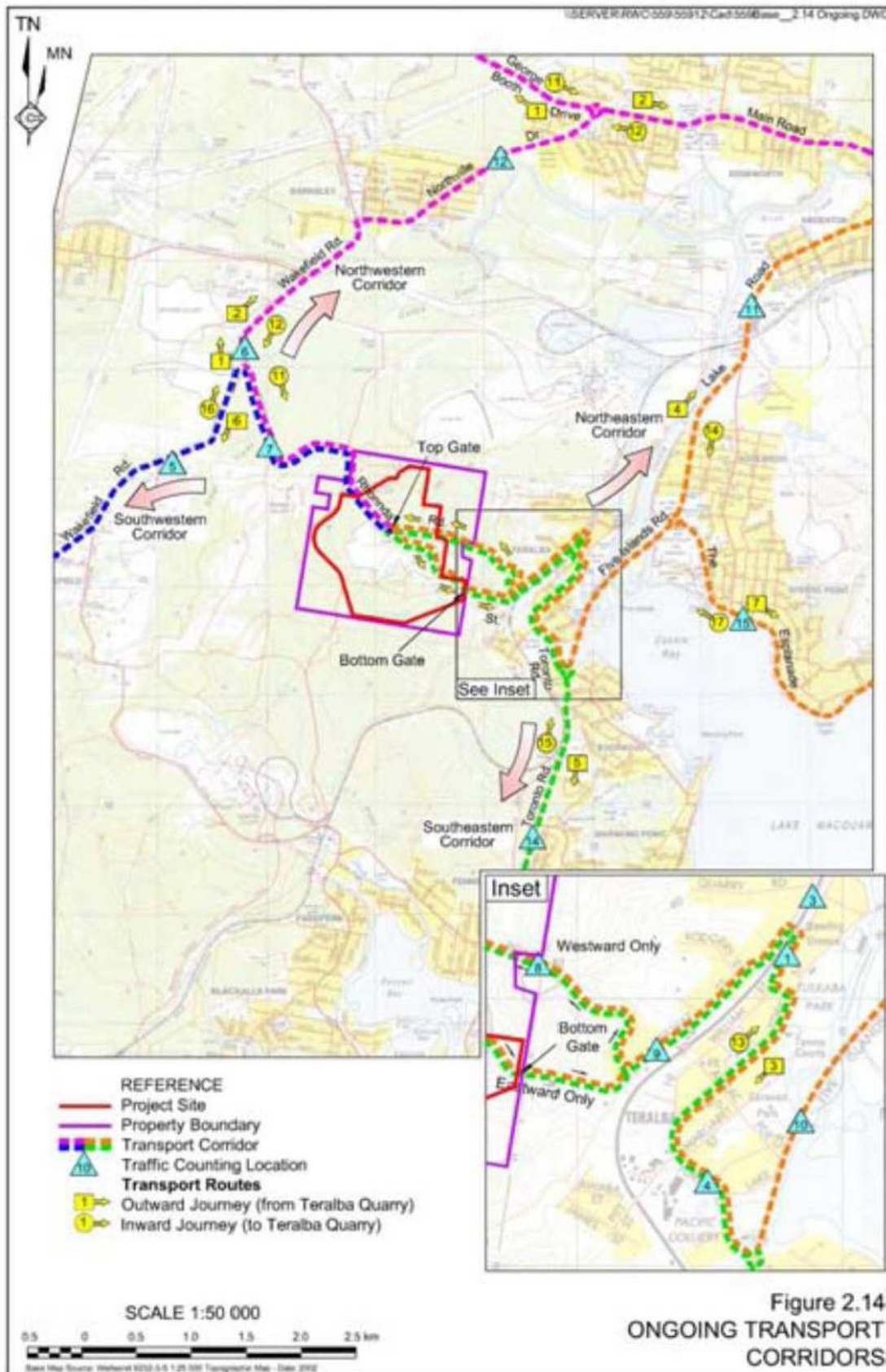


Figure 2.14
ONGOING TRANSPORT
CORRIDORS

Figure 6: Transport Routes

APPENDIX 5

BIODIVERSITY OFFSET STRATEGY

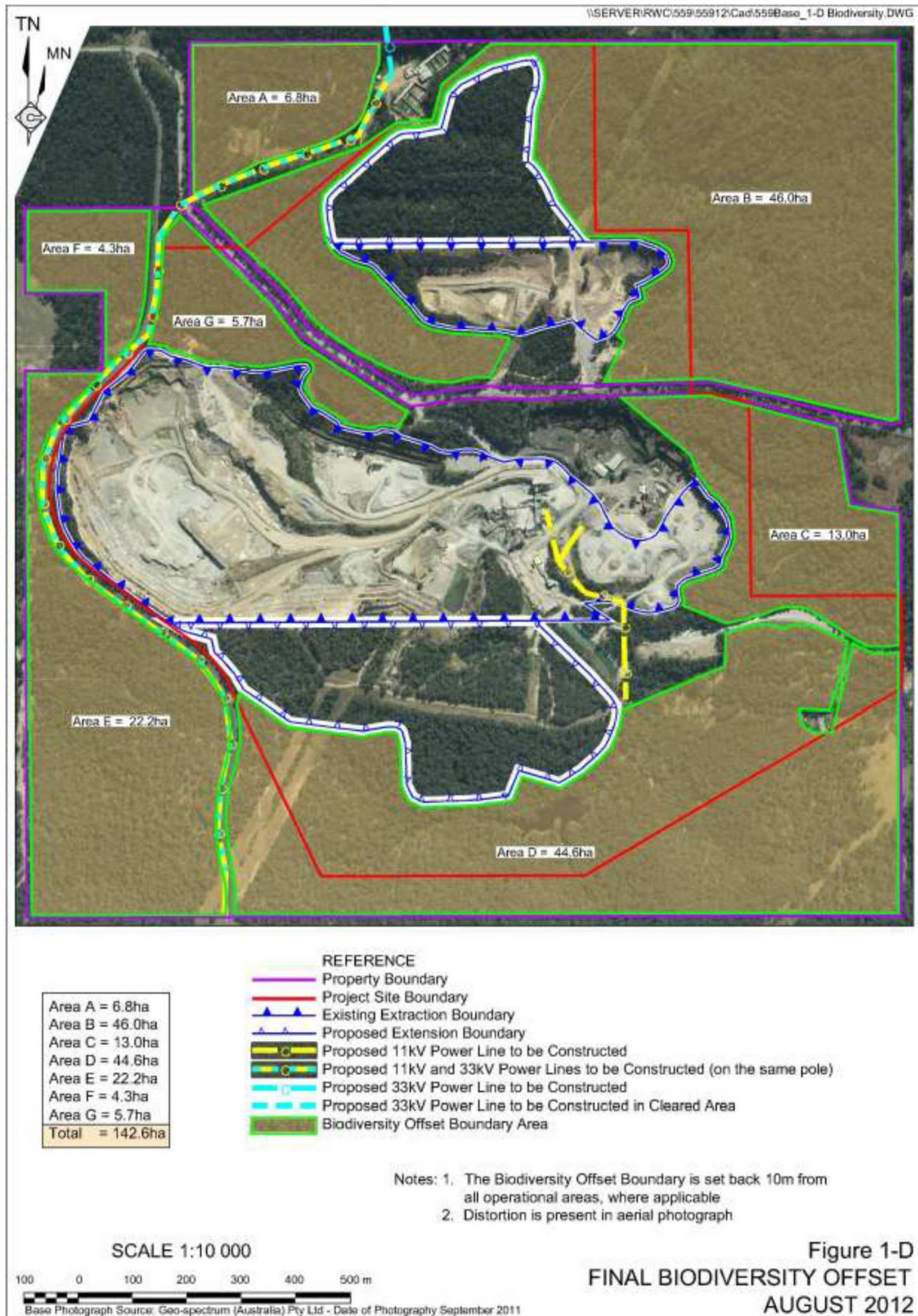
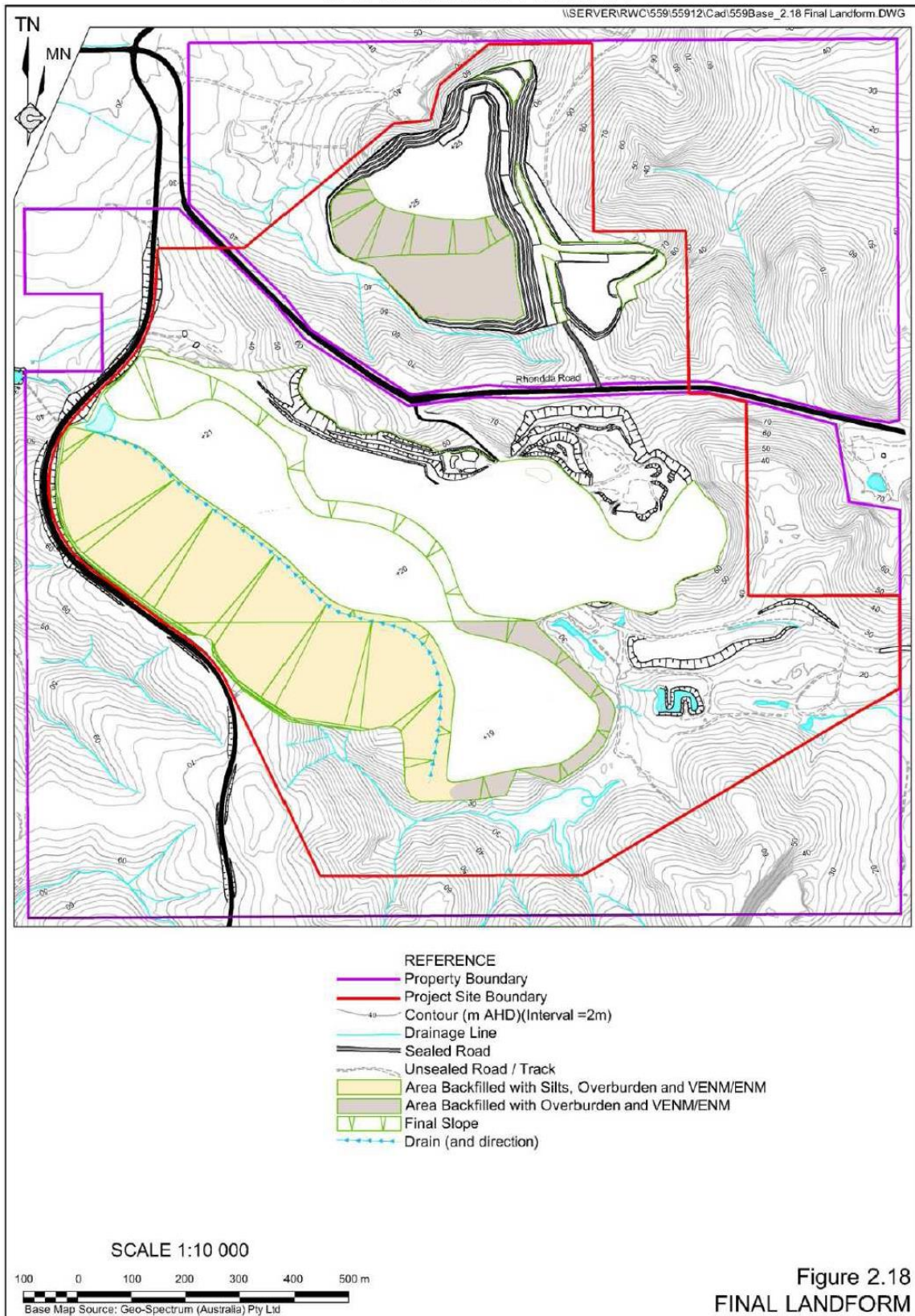


Figure 7: Biodiversity Offset

APPENDIX 6

REHABILITATION STRATEGY



Appendix 2

Correspondence with OEH – BioBanking Assessment

(Total No. of pages including blank pages = 64)

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Monday 5 August 2013

From: Robert Humphries
Sent: Monday, 5 August 2013 12:15 PM
To: Lynn Webber <Lynn.Webber@environment.nsw.gov.au>; louise.brodie@environment.nsw.gov.au
Subject: Advice on suitability of a property for a Conservation Covenant (consent condition) at Teralba

Hi Lynn/Louise

We have recently been engaged by Metromix who have DA approval to extend the Teralba Quarry in Lake Macquarie LGA to prepare a management plan for their offset area.

The Department of Planning issued consent to the extension in February 2013 (see attached).

Condition 53 of the approval (copied below) requires Metromix to enter into a Conservation Agreement pursuant to section 69B of the NPW Act to provide security for the offset area (unless OEH is not prepared to enter into such an agreement – then proponent has to negotiate an alternative).

I understand that OEH reserves Conservation Agreements for those areas that meet the criteria and have high conservation value, with vegetation in good condition and not subject to extensive revegetation.

Before we go too far down the path of the Conservation Agreement are you able to advise if the area would be considered worthy. If not we will discuss with DP&I other options such as a Biobanking Agreement.

Long Term Security of Offsets

53. By the end of June 2014, unless the Director-General agrees otherwise, the Proponent shall enter into a conservation agreement pursuant to section 69B of the *National Parks and Wildlife Act 1974* for the Offset Area, which records the obligations assumed by the Proponent under the conditions of this approval in relation to this area, and shall register this agreement pursuant to section 69F of the *National Parks and Wildlife Act 1974*. The conservation agreement must remain in force in perpetuity.

If OEH is not prepared to enter into a conservation agreement, then to satisfy this condition, the Proponent may propose another conservation measure to secure the offset for approval by the Director-General.

FYI, the area is adjacent to extensive areas of bushland that are managed as environmental areas by several coal/power companies (see figure below) and is likely to eventually become an addition to NPWS estate/Council bushland. The vegetation types are not EECs but provide habitat for several threatened species including owls, gliders etc as well as confirmed records of *Tetratheca juncea* and *Callistemon linearifolius*.

The offset area only includes the intact woodland, not the area indicated for mine rehabilitation (see attached figures).

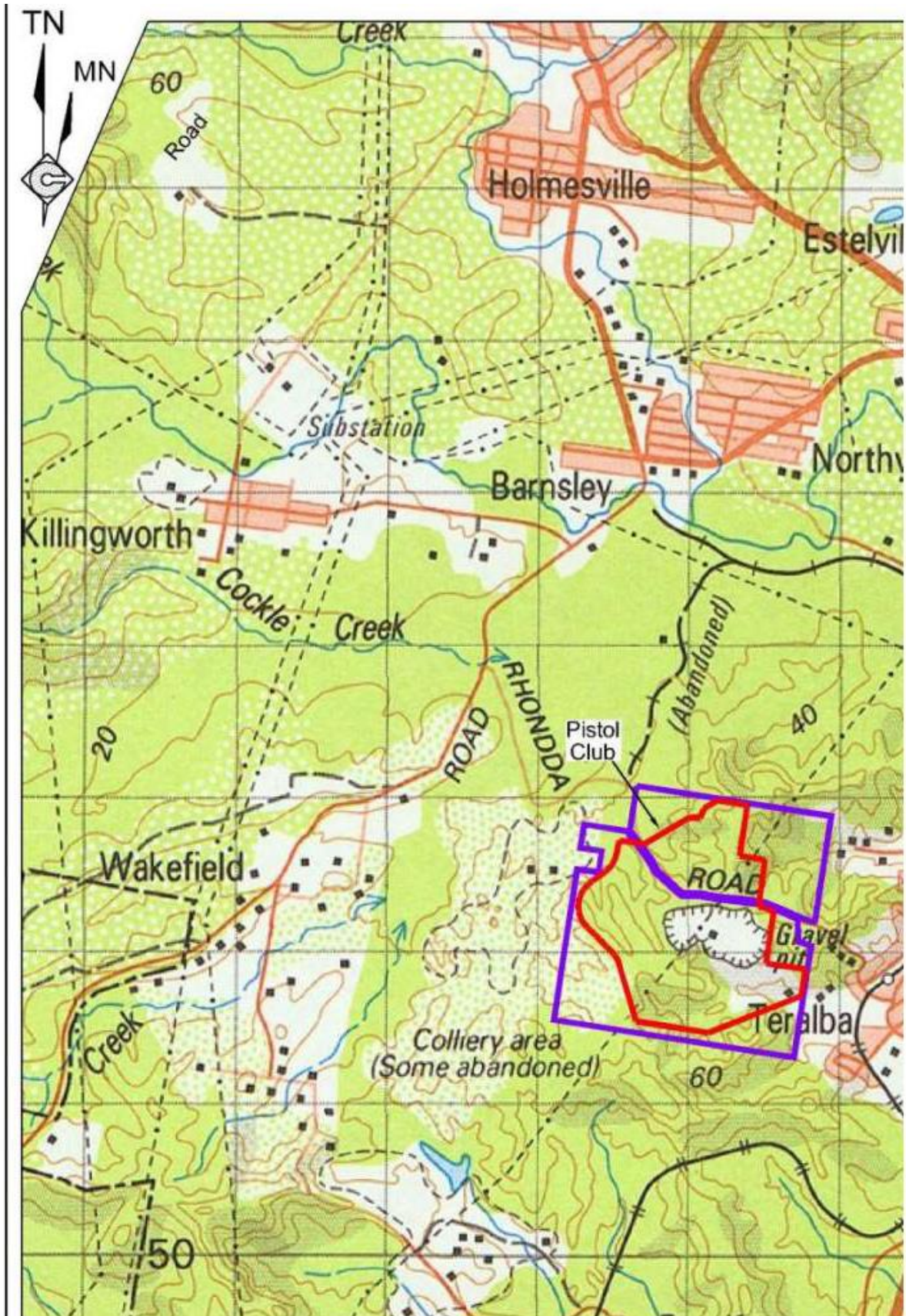
At the moment Metromix does not prefer the Biobank approach due to having to pay the entire in perpetuity management costs up front but are more than happy to enter into a legally binding agreement that requires them to pay an agreed sum per year (from annual royalties) with an additional amount set aside to provide for ongoing management after year 25 (We have used the Biobanking in perpetuity calculator to determine annual and in perpetuity amounts).

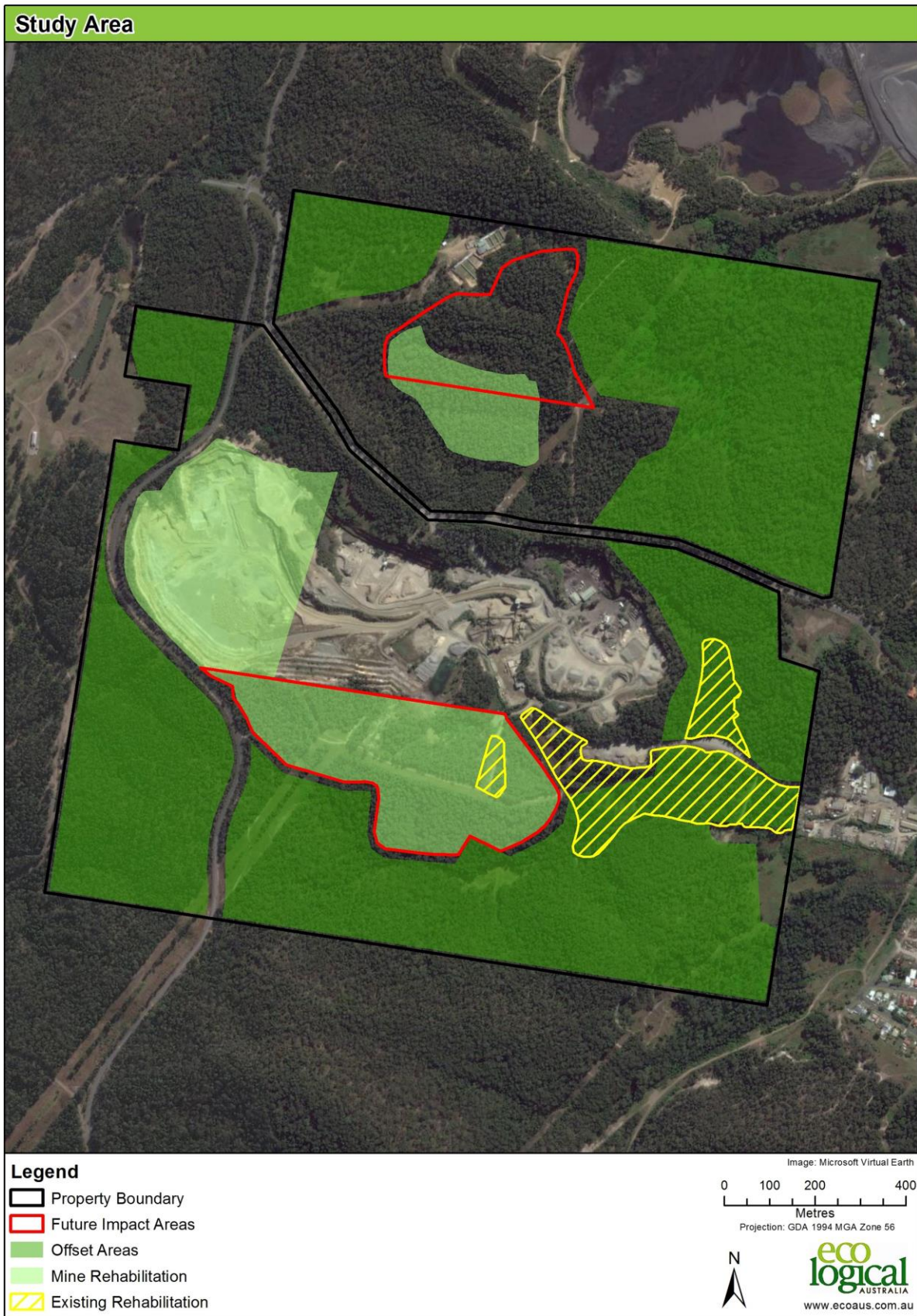
The agreement would also involve a third party (the land owner) who has entered into a lease arrangement with Metromix for the quarry and associated offset area – so ultimately the Conservation Agreement would be between the private land owner and Minister with Metromix providing a legally binding agreement outlining the future payments and responsibilities so that the Minister can be satisfied that should she/he enter into an agreement, the landowner is capable of meeting the obligations.

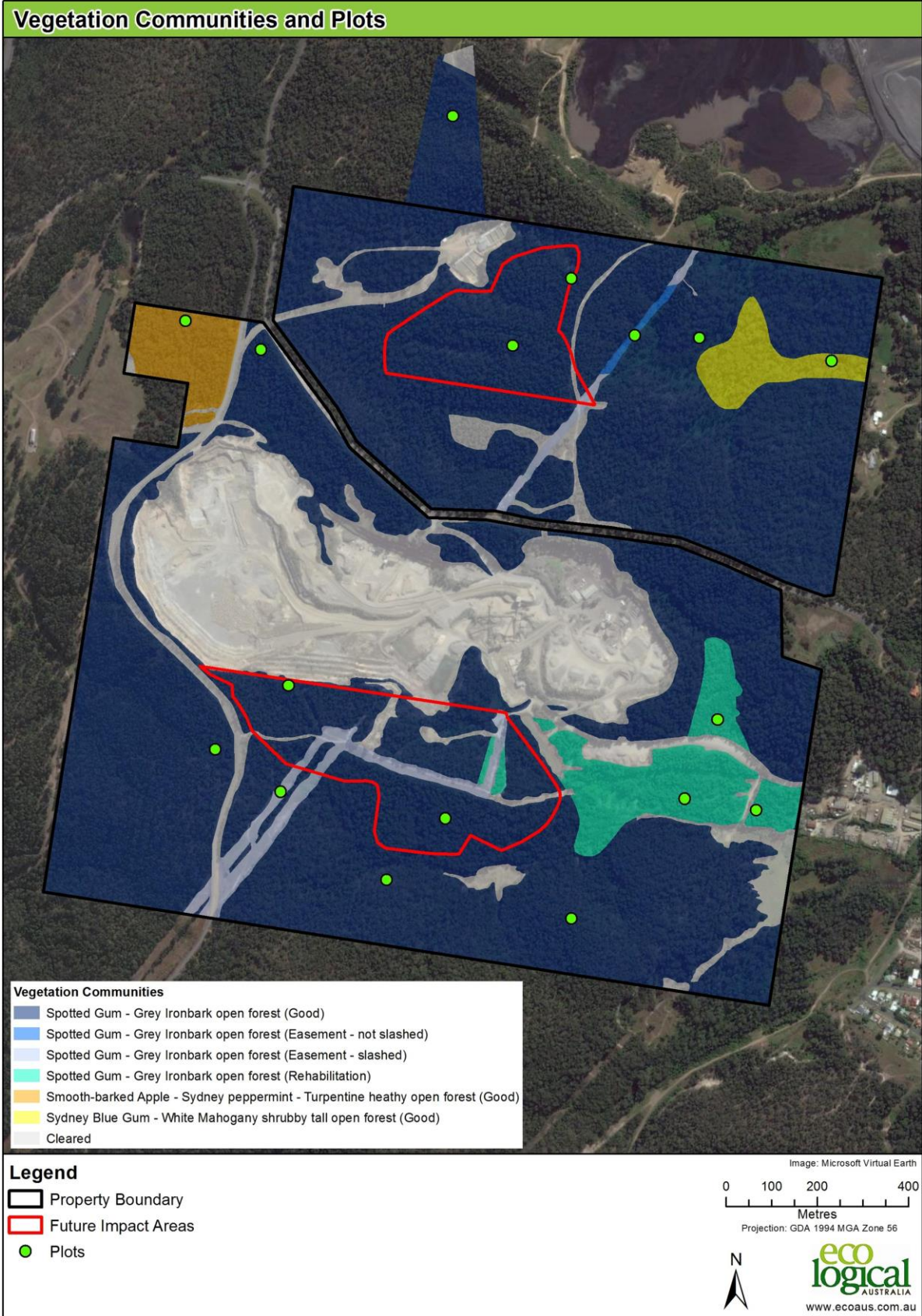
We understand that if we go down the CA path, OEHL will levy a fee to cover their costs involved in reviewing and registering the agreement.

Could you please advise if there is any additional information you require to provide a brief e-mail response and/or whether you would like to meet to discuss or advise a time for me to give you a call.

Regards







Tuesday 27 August 2013

From: Catherine Ellis [mailto:Catherine.Ellis@environment.nsw.gov.au]
Sent: Tuesday, 27 August 2013 4:13 PM
To: Robert Humphries <roberth@ecoaus.com.au>
Cc: Linda Bell <linda.bell@environment.nsw.gov.au>; Lucian McElwain <Lucian.McElwain@environment.nsw.gov.au>
Subject: Option of registering a Biobank Agreement with annual payments subject to bond/legally binding agreement rather than upfront in perpetuity payments

Dear Rob

Linda has forwarded your below enquiry, regarding the use of Biobanking to secure offsets for the extension of the Teralba Quarry, to me for response.

The Office of Environment and Heritage (OEH) is supportive of the use of biobank agreements as the preferred mechanism to secure offset sites.

You propose a biobank agreement that would allow the proponent to make payments into the Biobank Trust Fund over time rather than as an upfront payment. OEH is willing to consider this approach and believes it can be implemented under a standard biobank agreement. Further information on this option is provided in the attached.

It should be noted that the wording of some conditions of approval inadvertently excludes the use of a biobank agreement to secure the offset site. This may be the case for the Teralba Extension as the offset site is specifically identified. This means that the site may be considered to already be subject to a requirement to carry out biodiversity conservation measures of an ongoing nature and therefore cannot be designated as a biobank site (Paragraph 11(1)(d) of the *Threatened Species Conservation (biodiversity banking) Regulation 2008*). OEH will need to seek legal advice on this aspect for the Teralba Extension if your client decides to proceed with the use of a biobank agreement to secure the offset.

OEH would be happy to meet with you and your client to discuss your proposal further.

Regards

Catherine

Catherine Ellis
Senior Policy and Programs Officer
Environmental Program Services
Regional Operations Group
Office of Environment and Heritage
NSW Department of Premier and Cabinet
Level 12, 59-61 Goulburn St, Sydney (PO Box A290 Sydney South NSW 1232)
T: 02 9995 6727



Deferred management payments for proponent-managed biobank sites

For biobank sites that are managed by a proponent to offset their own development OEH is willing to consider allowing payment of management money into the Biobank Trust Fund to be deferred. This is achieved through delaying the retirement of credits. It is the retirement of credits that triggers the requirement for payment into the Trust Fund.

For these biobank sites, the biobank agreement would include a clause that the landholder (who is also the proponent in these cases) has agreed to retire credits and pay the fund deposit for those credits at an agreed time (or times) in the future. A formula for calculating the management payment into the Trust Fund from any particular year onwards will be included in the biobank agreement.

Under the biobank agreement the proponent would be required to undertake all agreed management actions from when the biobank site is established and pay for these management actions from their own funds until they make the payment into the Biobank Trust Fund. The proponent would also be required to retain ownership and management responsibility for the biobank site until all credits are retired and the Total Fund Deposit has been made.

As you would expect, the credits generated at the site would not be available to offset any other development. Although the credits will not be immediately retired they will be identified by OEH as having already been used as an offset and will not be available for sale.

Catherine Ellis
27 August 2013

Thursday 26 September 2013

From: Lucian McElwain [mailto:Lucian.McElwain@environment.nsw.gov.au]
Sent: Thursday, 26 September 2013 3:44 PM
To: Robert Humphries <roberth@ecoaus.com.au>
Cc: Linda Bell <linda.bell@environment.nsw.gov.au>; John Seidel <John.Seidel@environment.nsw.gov.au>; DECC Biobanking Mailbox <biobanking@environment.nsw.gov.au>
Subject: RE: Option of registering a Biobank Agreement with annual payments subject to bond/legally binding agreement rather than upfront in perpetuity payments

Robert,

Conservation agreements (CAs) are not the mechanism for offsets. All applicants for CAs are treated fairly and the same. CAs take up to 2 years to negotiate, providing the area meets the criteria for HCV etc.

BB agreements (BBAs) are the mechanism for offsets.

I would prefer to maintain this separation – rather than create BB features within CAs.

The BB team is exploring BBAs without the upfront payments and with a lump sum payment if the property is sold.

I suggest you pursue this option with them.

Please contact me if you need to discuss or more information,

Lucian

Lucian McElwain
T 02 9995 6730 / M 0429 920 724 / F 02 9995 6791

From: Robert Humphries [<mailto:roberth@ecoaus.com.au>]
Sent: Thursday, 26 September 2013 3:03 PM
To: McElwain Lucian
Subject: FW: Option of registering a Biobank Agreement with annual payments subject to bond/legally binding agreement rather than upfront in perpetuity payments

Hi Lucian, assuming you are still looking after Lynn Webbers issues, are you able to advise if you have a response to this e-mail?

Thank you

Robert Humphries
Manager BioBanking and Offsets Programs
Manager RTO Training Services

From: Robert Humphries
Sent: Monday, 5 August 2013 1:18 PM
To: Linda Bell
Cc: Lucian McElwain (Lucian.McElwain@environment.nsw.gov.au); Lynn Webber
Subject: Option of registering a Biobank Agreement with annual payments subject to bond/legally binding agreement rather than upfront in perpetuity payments

Hi Linda (Cc to Lucian as e-mail to Lynn Webber has been forwarded on to Lucian)

We have recently been engaged by Metromix who have DA approval to extend the Teralba Quarry in Lake Macquarie LGA to prepare a management plan for their offset area.

The Department of Planning issued consent to the extension in February 2013 (see attached).

Condition 53 of the approval (copied below) requires Metromix to enter into a Conservation Agreement pursuant to section 69B of the NPW Act to provide security for the offset area (unless OEH is not prepared to enter into such an agreement – then proponent has to negotiate an alternative such as Biobanking).

We are currently discussing with Lynn Webber's section whether the site is worthy of registration of a Conservation Covenant (we understand that not all sites are)

Long Term Security of Offsets

53. By the end of June 2014, unless the Director-General agrees otherwise, the Proponent shall enter into a conservation agreement pursuant to section 69B of the *National Parks and Wildlife Act 1974* for the Offset Area, which records the obligations assumed by the Proponent under the conditions of this approval in relation to this area, and shall register this agreement pursuant to section 69F of the *National Parks and Wildlife Act 1974*. The conservation agreement must remain in force in perpetuity.

If OEH is not prepared to enter into a conservation agreement, then to satisfy this condition, the Proponent may propose another conservation measure to secure the offset for approval by the Director-General.

At the moment Metromix does not prefer the Biobank approach due to having to pay the entire in perpetuity management costs up front but are more than happy to enter into a legally binding agreement that requires them to pay an agreed sum per year (from annual royalties) with an additional amount set aside to provide for ongoing management after year 25 (We have used the Biobanking in perpetuity calculator to determine annual and in perpetuity amounts).

Whilst this is **not** in accordance with the requirements under biobanking, I understand that another of our Clients, Wind Prospect CWP Pty Ltd, was able to negotiate an arrangement of this type as part of their offset for the Boco Rock wind farm which was negotiated with Southern Branch (Alison Treweek).

Are you able to advise what the mechanism was and whether it is possible to do the same for this project.

Friday 27 September 2013

From: Lucian McElwain [mailto:Lucian.McElwain@environment.nsw.gov.au]
Sent: Friday, 27 September 2013 9:02 AM
To: Robert Humphries <roberth@ecoaus.com.au>
Cc: Linda Bell <linda.bell@environment.nsw.gov.au>; John Seidel <John.Seidel@environment.nsw.gov.au>; DECC Biobanking Mailbox <biobanking@environment.nsw.gov.au>
Subject: Re: Option of registering a Biobank Agreement with annual payments subject to bond/legally binding agreement rather than upfront in perpetuity payments

Robert,

Let me clarify, your client can still apply for CA.

Note all CA applicants are the treated the same. No fast track or different treatment for developers wanting CAs for offsets.

The site may or may not be suitable for a CA. Gnu. An be determine after CA assessment.

Applications forms for CAs are available. Let me know if you want one.

However if it is an offset I recommend that a BBA would be the best and preferred mechanism - especially if the payment arrangements/schedule can be mutually agreed.

Lucian

Lucian McElwain
W: 02 9995 6730 / M: 0429 920 724

On 27/09/2013, at 8:53 AM, "Robert Humphries" <roberth@ecoaus.com.au> wrote:

Thanks Lucian, I appreciate your position and OEHS preference.

The question was asked because that is how the DP&I worded the consent (prior to our involvement in the project).

I just needed a response from OEHS that they would not be willing to enter into a CA for this so that I can go back to client and say Biobanking is the only feasible options for them. We have already mapped biometric veg types and collect 16 biometric plots.

Catherine Ellis has also provided details on the option of not retiring credits until a later stage of the project.

Cheers

Robert Humphries
Manager BioBanking and Offsets Programs
Manager RTO Training Services

From: Lucian McElwain [<mailto:Lucian.McElwain@environment.nsw.gov.au>]
Sent: Thursday, 26 September 2013 3:44 PM
To: Robert Humphries
Cc: Linda Bell; John Seidel; DECC Biobanking Mailbox
Subject: RE: Option of registering a Biobank Agreement with annual payments subject to bond/legally binding agreement rather than upfront in perpetuity payments

Robert,

Conservation agreements (CAs) are not the mechanism for offsets. All applicants for CAs are treated fairly and the same. CAs take up to 2 years to negotiate, providing the area meets the criteria for HCV etc.

BB agreements (BBAs) are the mechanism for offsets.

I would prefer to maintain this separation – rather than create BB features within CAs.

The BB team is exploring BBAs without the upfront payments and with a lump sum payment if the property is sold.

I suggest you pursue this option with them.

Please contact me if you need to discuss or more information,

Lucian

Lucian McElwain
T 02 9995 6730 / M 0429 920 724 / F 02 9995 6791

From: Robert Humphries [<mailto:roberth@ecoaus.com.au>]
Sent: Thursday, 26 September 2013 3:03 PM
To: McElwain Lucian
Subject: FW: Option of registering a Biobank Agreement with annual payments subject to bond/legally binding agreement rather than upfront in perpetuity payments

Hi Lucian, assuming you are still looking after Lynn Webbers issues, are you able to advise if you have a response to this e-mail?

Thank you

Robert Humphries
Manager BioBanking and Offsets Programs
Manager RTO Training Services

From: Robert Humphries
Sent: Monday, 5 August 2013 1:18 PM
To: Linda Bell
Cc: Lucian McElwain (Lucian.McElwain@environment.nsw.gov.au); Lynn Webber

Wednesday 11 June 2014

From: Robert Humphries
Sent: Wednesday, 11 June 2014 10:14 AM
To: Julianne SMART <Julianne.Smart@environment.nsw.gov.au>
Cc: Rob Corkery <brooklyn@rwcorkery.com>; Bill Sanderson <BILLS@metromix.com.au>;
tcork@mcpheekelshaw.com.au; Jennie Powell <JennieP@ecoaus.com.au>
Subject: Sumbmission of application for registration of a Biobank Agreement at Teralba

Julianne.

Jenny Powell will today submit an application to register a Biobank agreement at Teralba. Some supported documentation attached, the Credit Assessment report will be uploaded to the OEH server due to its size and OEHs e-mail size restrictions)

However, before the application is accepted as a formal application, our client, Metromix Quarries, would like to meet with OEH to discuss the application due to a possible inadvertent trigger of clause 11 in the Threatened Species Biobanking Regulation (see advise from Caitlin Ellis below) which basically states that the Minister cannot register a Biobanking Agreement if the land in question is 'required as an offset by a condition of approval' (i.e the double dipping rule)

As part of the expansion of the Teralba Quarry, Metromix committed to protect an area of Native Vegetation of around 142 ha as an offset area. The condition of approval stated that a particular parcel of land (i.e the parcel that was in the application), be protected as this offset (see below). The land in question has not previously been used as an offset, it has only been proposed for this DA, however, because of the way the condition of approval is worded, it may inadvertently trigger clause 11. We were advised by Caitlin that OEH will work with us to get around this potential issue so that the intent of the condition of approval can be met in good faith by Metromix .

52. The Proponent shall implement the Biodiversity Offset Strategy, as described in the EA, summarised in Table 8 and shown conceptually in the figure in Appendix 5, to the satisfaction of the Director-General.

53. By the end of June 2014, unless the Director-General agrees otherwise, the Proponent shall enter

into a conservation agreement pursuant to section 69B of the *National Parks and Wildlife Act 1974*

for the Offset Area, which records the obligations assumed by the Proponent under the conditions of

National Parks and Wildlife Act 1974. The conservation agreement must remain in force in perpetuity.

If OEHL is not prepared to enter into a conservation agreement, then to satisfy this condition, the

Proponent may propose another conservation measure to secure the offset for approval by the

Director-General.

Whilst the condition required the registration of a Conservation Covenant (unless not supported by OEHL) a Biobanking Assessment has been completed on the advice of Lucian McElwain (see below).

Robert,

Conservation agreements (CAs) are not the mechanism for offsets. All applicants for CAs are treated fairly and the same. CAs take up to 2 years to negotiate, providing the area meets the criteria for HCV etc.

BB agreements (BBAs) are the mechanism for offsets.

I would prefer to maintain this separation – rather than create BB features within CAs.

The BB team is exploring BBAs without the upfront payments and with a lump sum payment if the property is sold.

I suggest you pursue this option with them.

Please contact me if you need to discuss or more information,

Lucian

Lucian McElwain
T 02 9995 6730 / M 0429 920 724 / F 02 9995 6791

Further, as indicated in Lucian's e-mail and Caitlin's memo, Metromix would like to explore the annual payment of management fees over the first 20-25 years in line with Royalties from the Quarry operation and the subsequent establishment of an in perpetuity management account for management beyond year 25.

Subject to the issue of CI 11 and annual payments being acceptable, Metromix will submit the signed application form and fee to allow the formal registration of this offset areas as a Biobank site.

If you have any queries with this application, please do not hesitate to contact me or Jenny Powell.

Thank you

Robert Humphries

Associate Director – Chief Technical Officer
Manager BioBanking and BioCertification Offsets Programs
Manager RTO Training Services

From: Catherine Ellis [<mailto:Catherine.Ellis@environment.nsw.gov.au>]

Sent: Tuesday, 27 August 2013 4:13 PM

To: Robert Humphries

Cc: Linda Bell; Lucian McElwain

Subject: Option of registering a Biobank Agreement with annual payments subject to bond/legally binding agreement rather than upfront in perpetuity payments



Biobanking agreement application

Please read the *Guide to establishing a biobank site* available at www.environment.nsw.gov.au/biobanking/ before submitting this form. If you need any help in completing the form, please contact the BioBanking Team on 131 555.

This is an interactive form – please click on boxes and type in responses (each field has unlimited characters). When completed, print the form and sign where appropriate. This form can also be printed and filled in by hand.

1 Landowner's¹ details

If the application for a biobanking agreement relates to land that is owned by a corporation or more than one individual, then each director or landowner is required to provide the following information and sign the completed application form.

The designated primary landowner's² (or corporation's) details should be provided in sections 1 and 2. Additional landowners (including all directors or persons concerned in the management of a body corporate) please use Attachment A.

Landowner (if an individual)			
Category	<input type="checkbox"/> Private individual <input type="checkbox"/> Partnership		
Title	<input type="checkbox"/> Mr <input type="checkbox"/> Ms <input type="checkbox"/> Miss <input type="checkbox"/> Mrs <input type="checkbox"/> Dr		
Last name	[Redacted]		
First name	[Redacted]		
Landowner (if a corporation)			
Company	[Redacted]		
ABN	[Redacted]	GST registered	<input type="checkbox"/> Yes <input type="checkbox"/> No
URL	[Redacted]		
Street address			
Address	Rhondda Road		
Town	Teralba		
State	NSW	Postcode	2284

¹ **Owner**, in relation to land where establishment of a biobank site is proposed, includes every person who (either at law or in equity):

- is entitled to the land for any estate of freehold in possession, or
- is a person to whom the Crown has lawfully contracted to sell the land under the *Crown Lands Act 1989*, the *Crown Lands Consolidation Act 1913* or any other Act relating to the alienation of lands of the Crown, or
- is entitled to receive, or is in receipt of, or if the land were let to a tenant would be entitled to receive, the rents and profits in respect of the land, whether as beneficial owner, trustee, mortgagee in possession or otherwise, or
- a person who leases land under the *Crown Lands Act 1989*, the *Crown Lands Consolidation Act 1913* or the *Western Lands Act 1901*.

² **Primary landowner** is the owner, or one of the owners of the land to which the application for a biobanking agreement relates that is designated by all landowners as the main contact for the purpose of receiving official OEH communication.

Mailing address (if different from above)			
Address	[REDACTED]		
Town	[REDACTED]		
State	[REDACTED]	Postcode	[REDACTED]
Contact details for primary landowner (for enquiries or notifications)			
Name	[REDACTED]		
Phone	[REDACTED]	Mobile	[REDACTED]
Fax	[REDACTED]	Email	[REDACTED]
Preferred contact for credits			
<input type="checkbox"/> Designated email address* (please specify)		[REDACTED]	
<input type="checkbox"/> OEH to receive initial inquiries from potential buyers and forward these to the landowner		biobanking@environment.nsw.gov.au	

*Note: Designated email address will be displayed on the BioBanking public register. To protect your privacy, we advise you to provide an email address that does not include your name. If you do not have email, you can select to use the BioBanking email address.

2 Does the landowner meet the 'fit and proper person' criteria³?

Has the landowner (an individual or a corporation):	
<input type="checkbox"/> Yes <input type="checkbox"/> No	ever breached any relevant legislation ⁴ , or held a licence or other authority that has been suspended or revoked under any relevant legislation?
<input type="checkbox"/> Yes <input type="checkbox"/> No	in the previous 10 years, been convicted in New South Wales, or elsewhere, of an offence involving fraud or dishonesty?
<input type="checkbox"/> Yes <input type="checkbox"/> No	in the previous 3 years, been an undischarged bankrupt or applied to take the benefit of any law for the relief of bankrupt or insolvent debtors, compounded with creditors or made an assignment of remuneration for their benefit?
<input type="checkbox"/> Yes <input type="checkbox"/> No	if an individual, been the director or person concerned in the management of a body corporate that is the subject of a winding-up order or for which a controller or administrator has been appointed during the previous 3 years?
<input type="checkbox"/> Yes <input type="checkbox"/> No	if a corporation, been or is the subject of a winding-up order or has had a controller or administrator appointed during the previous 3 years?
If the landowner is a corporation, has any director or other person concerned in the management of the corporation ever:	
<input type="checkbox"/> Yes <input type="checkbox"/> No	breached any relevant legislation, or held a licence or other authority that has been suspended or revoked under any relevant legislation?
<input type="checkbox"/> Yes <input type="checkbox"/> No	been, or is, the director of another body corporate that has breached any relevant legislation, or has held a licence or other authority that has been suspended or revoked under any relevant legislation?
<input type="checkbox"/> Yes <input type="checkbox"/> No	been convicted in New South Wales or elsewhere of an offence involving fraud or dishonesty in the previous 10 years?

³ Refer to the Threatened Species Conservation (Biodiversity Banking) Regulation 2008 for more information.

⁴ **Relevant legislation** in this section means the following Acts: the *Threatened Species Conservation Act 1995*, the *Contaminated Land Management Act 1997*, the *Environmental Planning and Assessment Act 1979*, the *Environmental Trust Act 1998*, the *Environmentally Hazardous Chemicals Act 1985*, Parts 7 and 7A of the *Fisheries Management Act 1994*, the *Marine Parks Act 1997*, the *National Parks and Wildlife Act 1974*, the *Native Vegetation Act 2003*, the *Ozone Protection Act 1989*, the *Pesticides Act 1999*, the *Protection of the Environment Administration Act 1991*, the *Protection of the Environment Operations Act 1997*, the *Radiation Control Act 1990*, the *Recreation Vehicles Act 1983*, the *Road and Rail Transport (Dangerous Goods) Act 1997*, the *Waste Avoidance and Resources Recovery Act 2001*, the *Wilderness Act 1987*, a repealed Act or an Act of the Commonwealth, a state or a territory that corresponds to a previous Act.

If you answered 'Yes' to any question in section 2, attach a statement with the specific circumstances and why you think those circumstances should not prevent you from establishing a biobank site.

Each individual landowner or company director must also provide **two independent written references** (of approx 200–300 words) addressing the 'fit and proper person' criteria – that they are of good repute in relation to character, honesty and integrity and are competent to manage conservation work on the site. The name, address and contact phone number/s of the referee must be included in the reference. A referee cannot be a relative of the applicant and must have known the applicant for at least 10 years.

Note: In determining whether the applicant is fit and proper to enter into and fulfil the obligations imposed by the agreement, OEHL may take into consideration any or all of the above-listed matters. OEHL may also consider whether the applicant is honest and of good repute, and whether the applicant is able to carry out conservation management practices as required under a biobanking agreement.


3 Proposed biobank site

Property address				
Property name	Teralba Biobank Site			
Property address	Rhondda Road			
Town	Teralba			
State	NSW	Postcode	2284	
Location details				
Total area of proposed biobank site (hectares)	137.2 hectares			
Title reference	Lot and DP number(s)	Lots 1 and 2 DP 224037		
	Folio identifier or volume-folio (if Torrens Land System)	[REDACTED]		
	Registered deed number (if Old Land System)	[REDACTED]		
Site reference	Easting (6 digits)	368636	Northing (7 digits)	6351892
	AMG zone (54, 55 or 56)	56	Reference system (e.g. GDA94, WGS84, AGD)	GDA94
Local government area (LGA)	Lake Macquarie City Council			
Catchment management authority (CMA)	CMA region	Hunter/Central Rivers		
	CMA subregion	Wyong		
Zoning (under Local Environmental Plan)	<input type="checkbox"/> Rural <input type="checkbox"/> Residential <input type="checkbox"/> Recreation <input type="checkbox"/> Business <input checked="" type="checkbox"/> Industrial <input type="checkbox"/> Special purpose <input type="checkbox"/> Waterway <input checked="" type="checkbox"/> Environmental protection			
Other information				
<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Are there any property interest holders in the land? If Yes, provide details and attach proof that each property interest holder is likely to consent to a biobank site being established. Check on your certificate title for property interest holders and also declare any residential tenancies or other leases.</p> <p><input type="checkbox"/> Easement <input type="checkbox"/> Lease <input type="checkbox"/> Mining interest <input type="checkbox"/> Mortgage/charge</p> <p>Note: All property interest holders will be required to sign the biobanking agreement.</p>			

<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Is any part of the proposed biobank site covered by a conservation covenant or has it received government funding? If Yes, attach a copy of the covenant or funding agreement.</p>									
<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Has the land been used as an offset under the <i>Native Vegetation Act 2003</i> or any other Act (including under an authority granted by a public authority under an Act)? If Yes, attach a copy of the offset agreement.</p>									
<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Are there any conditions of consent or approval granted under the <i>Environmental Planning and Assessment Act 1999</i> that require ongoing biodiversity conservation measures to be carried out on the land? If 'Yes', attach a copy of the development approval consent listing all management requirements on the land.</p>									
<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<p>Is the land publicly owned? If 'Yes', specify what type of land is it (e.g. a 'natural area' under the <i>Local Government Act 1993</i>; reserved land under the <i>Crown Lands Act 1989</i>) and attach a description of legislative requirements regarding the use and management of the land.</p>									
Provide a short description of current land uses	The land is covered in native vegetation and not used for any specific purpose									
<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Is there any previous or current condition or use, or proposed use or development, of the site that may be inconsistent with its management for biodiversity conservation purposes? If 'Yes', describe the condition or use</p> <table border="1" data-bbox="419 1142 1292 1400"> <tr> <td data-bbox="419 1142 1145 1245"> Description of condition, use or development and whether previous, current or proposed (such as maintaining or constructing access tracks, building shed/s to store weed control chemicals or other pesticides, building fences to manage stock or human access, building structures to restore natural water flows) </td> <td data-bbox="1153 1142 1292 1245"> Management zones affected </td> </tr> <tr> <td data-bbox="419 1256 1145 1301"> </td> <td data-bbox="1153 1256 1292 1301"> </td> </tr> <tr> <td data-bbox="419 1312 1145 1357"> </td> <td data-bbox="1153 1312 1292 1357"> </td> </tr> <tr> <td data-bbox="419 1368 1145 1400"> </td> <td data-bbox="1153 1368 1292 1400"> </td> </tr> </table>		Description of condition, use or development and whether previous, current or proposed (such as maintaining or constructing access tracks, building shed/s to store weed control chemicals or other pesticides, building fences to manage stock or human access, building structures to restore natural water flows)	Management zones affected						
Description of condition, use or development and whether previous, current or proposed (such as maintaining or constructing access tracks, building shed/s to store weed control chemicals or other pesticides, building fences to manage stock or human access, building structures to restore natural water flows)	Management zones affected									
<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>To the best of your knowledge, is there any previous or current condition or use, or proposed use, of surrounding land that may be inconsistent with the management of the proposed biobank site for biodiversity purposes? If 'Yes', describe the condition or use.</p> <table border="1" data-bbox="419 1534 1292 1736"> <tr> <td data-bbox="419 1534 1145 1590"> Description of condition or use and whether previous, current or proposed </td> <td data-bbox="1153 1534 1292 1590"> Management zones affected </td> </tr> <tr> <td data-bbox="419 1601 1145 1646"> </td> <td data-bbox="1153 1601 1292 1646"> </td> </tr> <tr> <td data-bbox="419 1657 1145 1702"> </td> <td data-bbox="1153 1657 1292 1702"> </td> </tr> <tr> <td data-bbox="419 1713 1145 1736"> </td> <td data-bbox="1153 1713 1292 1736"> </td> </tr> </table>		Description of condition or use and whether previous, current or proposed	Management zones affected						
Description of condition or use and whether previous, current or proposed	Management zones affected									
<input type="checkbox"/> Yes <input type="checkbox"/> No	<p>Are there any land uses, compatible with biodiversity conservation, proposed for the biobank site once it is established (e.g. traditional Aboriginal cultural activities, ecotourism, camping, bushwalking or other passive recreational activities)? If 'Yes', describe the land use and specify whether it is a development activity or other human activity.</p> <table border="1" data-bbox="419 1892 1292 1957"> <tr> <td data-bbox="419 1892 1145 1957"> Description of proposed development or human activity (include details of how many people, tents, vehicles, campfires etc allowed at any time) </td> <td data-bbox="1153 1892 1292 1957"> Management zones affected </td> </tr> </table>		Description of proposed development or human activity (include details of how many people, tents, vehicles, campfires etc allowed at any time)	Management zones affected						
Description of proposed development or human activity (include details of how many people, tents, vehicles, campfires etc allowed at any time)	Management zones affected									

<input type="checkbox"/> Yes <input type="checkbox"/> No	Are there any Aboriginal objects and/or Aboriginal places on the biobank site? If 'Yes' describe the objects and/or places.	
	Description of Aboriginal objects and places	Management zones

4 BioBanking Assessor

Name	Jennifer Powell
Accreditation number	0092
Declaration	<p>I declare that all information supplied in relation to the Credit Calculator reports and any associated documents complies with both the BioBanking Assessment Methodology and the operational manual.</p> <p>I understand that I am personally accountable for the validity of all data collected and analyses performed and that I have adequately supervised all support team members for this assessment.</p> <p>I have undertaken this assessment within the terms of my accreditation as a BioBanking Assessor and have adhered to the BioBanking Assessor code of conduct.</p>
Signature	

5 Application fee

Application fee (\$672) payment method (select one)	
<input type="checkbox"/> Cheque	Please make cheque payable to the 'Office of Environment and Heritage NSW.'
<input type="checkbox"/> Credit card	<input type="checkbox"/> Master card <input type="checkbox"/> Visa Card no [] [] [] [] [] [] Expiry date [] / [] [] Cardholder's name [] [] [] Cardholder's signature _____ Date 8/12/2017 <small>Note: Fees are exempt from GST by the Commonwealth Treasurer's Division 81 determination under A New Tax System (Goods and Services Tax) Act 1999.</small>

6 Supporting documentation

Documentation required with this application		
<input type="checkbox"/> Proof of ownership Current certificate of title or other documentation (e.g. Crown lease, contract to purchase Crown land etc).		
<input checked="" type="checkbox"/> BioBanking Assessment Report The assessment report must be prepared by a person accredited ⁵ to use the BioBanking Assessment Methodology and the BioBanking Credit Calculator. The report must include all the required supporting documentation as indicated by the BioBanking Assessment Methodology and operational manual (e.g. local reference data, expert reports, request of increase in gain in site value). Please list supporting documentation included with this application below. Both hard copies and soft copies (on CD) are required.		
<input checked="" type="checkbox"/> Maps and GIS files The map(s) must identify: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> biobank site boundary (including GPS points) <input checked="" type="checkbox"/> vegetation zones <input checked="" type="checkbox"/> plots and transects <input checked="" type="checkbox"/> assessment circles <input checked="" type="checkbox"/> species polygons (showing location of any threatened species for which species credits are created) <input checked="" type="checkbox"/> location of photo-points <input checked="" type="checkbox"/> management zones. The map(s) must be prepared using GPS mapping on either a satellite image or ortho-rectified aerial image (see Appendix A of <i>Guide to establishing a biobank site</i>) in accordance with the Operational Manual Section 3.1. Both hard copies and soft copies (on CD) are required.		
<input checked="" type="checkbox"/> Management actions Management actions and management plans must be drafted using the template available on the BioBanking website. The template wording must be used. A hard copy and soft copy (in Word on CD) are required.		
<input checked="" type="checkbox"/> Proposed Total Fund Deposit The Total Fund Deposit worksheet of the biodiversity credits pricing spreadsheet must be filled in for all annual management costs and other recurring costs. See <i>Guide to establishing a biobank site</i> for further information.		
<input type="checkbox"/> Additionality If there are any existing conservation obligations over the site, a copy of any agreement(s) (e.g. conservation agreement, PVP, Nature Trust agreement) must be provided. See <i>Guide to establishing a biobank site</i> for further information.		
<input type="checkbox"/> Full survey (optional) If you want to identify the biobank site's exact boundaries on the deposited plan you need to provide a LPMA-approved 'full plan' for irregular boundaries or 'sketch plan' for regular boundaries. See section 7.1 of <i>Guide to establishing a biobank site</i> for further information.		
<input type="checkbox"/> Application fee Please attach a cheque or fill in credit card information in section 5 of this application.		
Additional documentation included with this application		
Item	Document title	Number of pages
1		
2		
3		
4		

⁵ Accredited persons (BioBanking Assessors) are individuals accredited under section 142B(1)(C) of the TSC Act.

7 Signature(s) of the proposed biobank site owner(s)

This application should be signed by the person(s) who legally own(s) the land. The various ways in which the application may be signed, and the people who may sign the application, are set out in the categories below.

Owner category	Application is signed and certified by
<input type="checkbox"/> Individual(s)	All the individuals who are owners of the land
<input type="checkbox"/> Company	<input type="checkbox"/> the common seal being affixed in accordance with the <i>Corporations Act 2001</i> , or <input type="checkbox"/> two directors, or <input type="checkbox"/> a director and a company secretary, or <input type="checkbox"/> the director, if a proprietary company that has a sole director who is also the sole company secretary.
<input type="checkbox"/> A local council	<input type="checkbox"/> the general manager in accordance with s.377 of the <i>Local Government Act 1993</i> (LG Act), or <input type="checkbox"/> the seal of the council being affixed in a manner authorised under the LG Act.
<input type="checkbox"/> A public authority other than a council	The chief executive officer of the public authority.

I/We (the landowner(s)):

- apply for a biobanking agreement, and
- declare that the information in this biobanking agreement application (including any attachments) is not false or misleading in any material particular.

Signature		Signature	
Name		Name	
Position		Position	
Date		Date	

Signature		Signature	
Name		Name	
Position		Position	
Date		Date	

Affix common seal (if signing under seal):

8 Lodging the application

Once completed and signed, send the application with all attachments to:

Biodiversity and Vegetation Programs
Office of Environment and Heritage, NSW
PO Box A290
Sydney South NSW 1232

Phone: 131 555

Fax: (02) 9995 6795

Email: biobanking@environment.nsw.gov.au

Office use only

Received date

Completed date

Confirmation issued

Invoice number

Published by:
Office of Environment and Heritage, NSW
59-61 Goulburn Street, Sydney
PO Box A290, Sydney South 1232
Phone: (02) 9995 5000 (switchboard)
Phone: 131 555 (environment information and publications requests)
TTY: (02) 9211 4723
Fax: (02) 9995 5999
Email: info@environment.nsw.gov.au
Website: www.environment.nsw.gov.au

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Attachment A

A1 Additional landowners

If the application for a biobanking agreement relates to land that is owned by more than one individual or corporation, then each landowner (other than the designated primary landowner, whose information is provided in sections 1 and 2) is required to provide the information requested in A1 and A2 of this attachment. Print as many of these attachments as necessary. All landowners must also sign the completed application form.

Additional landowner (if an individual)			
Category	<input type="checkbox"/> Private individual		<input type="checkbox"/> Partnership
Title	<input type="checkbox"/> Mr	<input type="checkbox"/> Ms	<input type="checkbox"/> Miss <input type="checkbox"/> Mrs <input type="checkbox"/> Dr
Last name			
First name			
Additional landowner (if a corporation)			
Company			
ABN		GST registered	<input type="checkbox"/> Yes <input type="checkbox"/> No
URL			
Street address			
Address			
Town			
State		Postcode	
Mailing address (if different from above)			
Address			
Town			
State		Postcode	
Contact details			
Contact person (if a corporation)			
Phone		Mobile	
Fax		Email	
Preferred contact for credits			
<input type="checkbox"/> Designated email address* (please specify)			
<input type="checkbox"/> OEH to receive initial inquiries from potential buyers and forward these to the landowner		biobanking@environment.nsw.gov.au	

A2 Does the landowner meet the 'fit and proper person' criteria⁶ to establish a biobank site?

Has the landowner (an individual or a corporation):	
<input type="checkbox"/> Yes <input type="checkbox"/> No	ever breached any relevant legislation ⁷ , or held a licence or other authority that has been suspended or revoked under any relevant legislation?
<input type="checkbox"/> Yes <input type="checkbox"/> No	in the previous 10 years, been convicted in New South Wales, or elsewhere, of an offence involving fraud or dishonesty?
<input type="checkbox"/> Yes <input type="checkbox"/> No	in the previous 3 years, been an undischarged bankrupt, or applied to take the benefit of any law for the relief of bankrupt or insolvent debtors, compounded with creditors or made an assignment of remuneration for their benefit?
<input type="checkbox"/> Yes <input type="checkbox"/> No	if an individual, been the director or person concerned in the management of a body corporate that is the subject of a winding-up order or for which a controller or administrator has been appointed during the previous 3 years?
<input type="checkbox"/> Yes <input type="checkbox"/> No	if a corporation, been or is the subject of a winding-up order or has had a controller or administrator appointed during the previous 3 years?
If the landowner is a corporation, has any director or other person concerned in the management of the corporation ever:	
<input type="checkbox"/> Yes <input type="checkbox"/> No	breached any relevant legislation, or held a licence or other authority that has been suspended or revoked under any relevant legislation?
<input type="checkbox"/> Yes <input type="checkbox"/> No	been or is the director of another body corporate that has breached any relevant legislation, or held a licence or other authority that has been suspended or revoked under any relevant legislation?
<input type="checkbox"/> Yes <input type="checkbox"/> No	been convicted in New South Wales or elsewhere of an offence involving fraud or dishonesty in the previous 10 years?

If you answered 'Yes' to any question in section A2, attach a statement with the specific circumstances and why you think those circumstances should not prevent you from establishing a biobank site.

Individual landowners must also provide two independent written references addressing the 'fit and proper person' criteria. The name, address and contact phone number/s of the referee must be included in the reference.

Note: In determining whether the person is a 'fit and proper person' to enter into and fulfil the obligations imposed by the agreement, OEH may take into consideration any or all of the above listed matters. OEH may also consider whether the applicant is honest and of a good repute, and whether the applicant is able to carry out conservation management as required under a biobanking agreement.

⁶ Refer to the Threatened Species Conservation (Biodiversity Banking) Regulation 2008 for more information.

⁷ **Relevant legislation** in this section means the following Acts: the *Threatened Species Conservation Act 1995*, the *Contaminated Land Management Act 1997*, the *Environmental Planning and Assessment Act 1979*, the *Environmental Trust Act 1998*, the *Environmentally Hazardous Chemicals Act 1985*, Parts 7 and 7A of the *Fisheries Management Act 1994*, the *Marine Parks Act 1997*, the *National Parks and Wildlife Act 1974*, the *Native Vegetation Act 2003*, the *Ozone Protection Act 1989*, the *Pesticides Act 1999*, the *Protection of the Environment Administration Act 1991*, the *Protection of the Environment Operations Act 1997*, the *Radiation Control Act 1990*, the *Recreation Vehicles Act 1983*, the *Road and Rail Transport (Dangerous Goods) Act 1997*, the *Waste Avoidance and Resources Recovery Act 2001*, the *Wilderness Act 1987*, a repealed Act or an Act of the Commonwealth, a state or a territory that corresponds to a previous Act.

Credit pricing worksheet

SITE	Biobank site description	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
		Area of the proposed biobank site (ha)	137.2	137.2	137.2	137.2
	No. of biodiversity credits issued	942	942	942	942	942

PART B	Costs to enter into a biobanking agreement	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
		Site assessment and Biobanking Agreement Credit Report preparation	\$20,000	\$20,000	\$20,000	\$20,000
	Preparation of management actions	\$10,000	\$10,000	\$10,000	\$10,000	\$10,000
	Biobanking agreement application fee	\$612	\$612	\$612	\$612	\$612
	Legal fees	\$2,500	\$2,500	\$2,500	\$2,500	\$2,500
	Other	\$5,000	\$5,000	\$5,000	\$5,000	\$5,000
	Total cost to enter into a biobanking agreement (excluding interest)	\$38,112	\$38,112	\$38,112	\$38,112	\$38,112
	Loan amount for setup of biobank	\$0	\$0	\$0	\$0	\$0
	Interest rate (enter %) per annum	7%	7%	7%	7%	7%
	Loan period in years	2	2	2	2	2
	Interest on setup cost	\$0	\$0	\$0	\$0	\$0
	Total cost to enter into a biobanking agreement (including interest incurred)	\$38,112	\$38,112	\$38,112	\$38,112	\$38,112
	Opportunity cost to landowner (optional)					
	Market value of land (\$ per ha)	\$0	\$2,500	\$5,000	\$7,500	\$10,000
	Total market value of land (\$ per ha x area)	\$0	\$343,000	\$686,000	\$1,029,000	\$1,372,000
	Stamp duty (not applicable if property already owned)					
	Total opportunity cost to landowner	\$0	\$343,000	\$686,000	\$1,029,000	\$1,372,000

PART A	Total Fund Deposit	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
		Total Fund Deposit	\$2,339,921	\$2,339,921	\$2,339,921	\$2,339,921

From previous worksheet
\$2,339,921

TOTAL	Total costs	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
		Total Fund Deposit	\$2,339,921	\$2,339,921	\$2,339,921	\$2,339,921
	Total cost to enter into a biobanking agreement	\$38,112	\$38,112	\$38,112	\$38,112	\$38,112
	Total opportunity cost to landowner	\$0	\$343,000	\$686,000	\$1,029,000	\$1,372,000
	Total cost	\$2,378,033	\$2,721,033	\$3,064,033	\$3,407,033	\$3,750,033
	Profit or risk margin as percentage of the Total Fund Deposit (enter %)	10%	10%	10%	10%	10%
	Profit or risk margin (\$) based on the Total Fund Deposit	\$233,992	\$233,992	\$233,992	\$233,992	\$233,992
	Desired total price of credits (including profit or risk margin)	\$2,612,025	\$2,955,025	\$3,298,025	\$3,641,025	\$3,984,025

CREDIT PRICE	Potential credit price	Scenario 1	Scenario 2	Scenario 3	Scenario 4	Scenario 5
		Trust Fund Deposit amount per credit	\$2,484	\$2,484	\$2,484	\$2,484
	Cost to enter into a BioBanking agreement per credit	\$40	\$40	\$40	\$40	\$40
	Opportunity cost to landholder per credit	\$0	\$364	\$728	\$1,092	\$1,456
	Profit margin per credit	\$248	\$248	\$248	\$248	\$248
	Individual credit price (total price / number of credits)	\$2,773	\$3,137	\$3,501	\$3,865	\$4,229
	Proportion of biodiversity credits likely to be sold (enter %)	100%	100%	100%	100%	100%
	Total amount to be received given the % of credits likely to be sold	\$2,612,025	\$2,955,025	\$3,298,025	\$3,641,025	\$3,984,025
	Individual credit price to achieve the desired total price of credits given the % likely to be sold	\$2,773	\$3,137	\$3,501	\$3,865	\$4,229
	Individual credit price to achieve 80% of the Total Fund Deposit given the % likely to be sold	\$1,987	\$1,987	\$1,987	\$1,987	\$1,987
	Individual credit price to achieve 100% of the Total Fund Deposit given the % likely to be sold	\$2,484	\$2,484	\$2,484	\$2,484	\$2,484

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Instructions for completing the template for management actions

This template for management actions should be filled in by the landowner and submitted to OEHL with an application to establish a biobank site. These standard words and format must be used for the management actions (refer to the *Guide to establishing a biobank site* for guidance).

OEHL will review the management actions and plans and make any necessary amendments after consultation with the landowner. These management actions will be incorporated into the biobanking agreement as Annexure C.

There are four sections to this template:

1. standard management actions – mandatory
2. additional management actions – only if indicated by the assessment
3. standard management plans (weeds and fire for conservation) – mandatory
4. additional management plans (feral and overabundant herbivores and vertebrate pests) – only if indicated by the assessment.

An additional short section is also included in this template that requires the details of photo points for monitoring purposes. This information will be incorporated into the agreement as Annexure D.

Green boxes like this one provide instructions and examples and will be deleted by OEHL before the biobanking agreement is processed.

Yellow highlighted fields need to be customised by the landowner. Usually the landowner needs to provide the information required; sometimes the landowner will need to delete or retain provided options. It is important to ensure that, especially where fields are customised, that the management actions are certain, clear and specific so that it is clear what the requirements of the actions are.

The format and wording of standard and additional management actions must not be changed. Enter site specific information into the yellow highlighted fields as required.

Management actions are divided into passive and active actions. Passive actions have little or no cost and include refraining from doing something, such as not removing fallen logs or bush rock. Passive management actions must be commenced as soon as the biobanking agreement is signed.

If a management action is active, you have to undertake specific activities to improve the site's biodiversity. Active management actions only need to be commenced when 80% of the Total Fund Deposit is met (ie from 'first payment date').

In the table below, the timing column indicates:

- passive actions by the term 'Ongoing from commencement date'
- active actions by a reference to 'Ongoing from first payment date'.

Managing grazing for conservation can be passive or active depending on the biobank site. For example, managing grazing for conservation is a passive management action if the biobank site is already suitably fenced, and it is an active management action if the biobank site needs to be fenced. Both options appear in the timing column and are highlighted yellow. Delete whichever option is not applicable.

Section 1: Standard management actions

Standard management actions		
Item 1	Management of grazing for conservation	Timing
1.1	<p>Stock must not be permitted to graze in any area of the biobank site.</p> <p>If no grazing is to be allowed, replace the above item with: 'Stock must not be permitted to graze in any area of the biobank site.'</p> <p>Then delete the words in item 1.2 and 1.3 (but keep the numbering) and replace with: 'This item is not applicable'. The wording in the adjacent Timing column can also be deleted.</p>	Ongoing from commencement date.
1.2	<p>This item is not applicable</p> <p>Insert any requirements specific to the site to accommodate local conditions and allow for flexibility in a framework of reasonable certainty.</p> <p>Delete 'Specific requirements:' if it is not relevant.</p> <p>The landowner can prevent stock from grazing or require stock to graze in specific areas by erecting and maintaining stockproof fencing. Fencing may be permanent or temporary (including electric fences). Indicate the specific type and length of fence to be erected and by when.</p> <p>Soil disturbance may be required (and is permitted) to encourage regeneration of native vegetation in conjunction with management of grazing for conservation.</p>	
1.3	This item is not applicable	
1.4	If, at any time, the landowner observes stock in any area of the biobank site, other than an area on the biobank site where grazing is permitted, the landowner must take necessary measures to remove the stock from the area immediately.	Ongoing from commencement date.
Item 2	Weed control	Timing
2.1	<p>The landowner must implement and, at all relevant times, comply with, the integrated weed management plan included in Section 3 ('the weed management plan') (or such updated integrated weed management plan as has been approved by the Director General under item 2.2 below).</p> <p>To allow for adaptive management, minor alterations can be made to the implementation of the weed management plan. Any alterations must be recorded in writing in accordance with Section 3 of this Annexure.</p>	Ongoing from first payment date.

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<p>2.2</p>	<p>The weed management plan must be reviewed at intervals of no less than 4 years and no more than 6 years by an appropriately qualified person. The review is to consider the efficacy of the management actions in the plan and consider the effectiveness of the matters contained in the current plan that are outlined in the dot points below. Notification of the date of the review commencement must be provided to the Director General in writing within 14 days of the commencement of the review. The findings of the review must be submitted to the Director General within 3 months of commencing the review.</p> <p>Where the Director General determines from the review that an update of the plan is required, the Director General will notify the landowner in writing that an update of the plan is required. The landowner must update the plan and submit it to the Director General for approval within 3 months of receiving written notification from the Director General that an update of the plan is required. The revised plan must be prepared by an appropriately qualified person and must cover the matters outlined below and any additional matters specified by the Director General in writing:</p> <ul style="list-style-type: none"> • a description of the target weed/s at the biobank site and their location/s, linked to each management zone where weeds are present • the method/s of weed control in each zone • the frequency of weed control activities at the site, taking into account management practices where weeds are providing habitat for native species • the timing of any planting of native plant species required in each management zone to provide alternative habitat for native species affected by weed control activities • methods for monitoring the success of weed control activities • a timetable/measures for inspections to identify new weed species or exotic plant species (including noxious weeds under the <i>Noxious Weeds Act 1993</i>) • additional weed control activities to destroy or remove any new weed species that are found on the site • measures for assessing and reporting monitoring results • a diary for recording actions taken in accordance with the weed management plan and minor alterations to this plan permitted for adaptive management. The details (management zone/s, date, alternative action) and reasons for the minor alterations must be recorded in the diary. 	<p>Ongoing from first payment date.</p>
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Item 3	Management of fire for conservation	Timing
3.1	<p>The landowner must implement, and at all relevant times, comply with the fire management plan included in Section 3 (or such updated fire management plan as has been approved by the Director General under item 3.2 below) (“the fire management plan”). To allow for adaptive management and weather conditions, minor alterations can be made to the implementation of the fire management plan, and must be recorded in writing in accordance with Section 3 of this Annexure.</p>	Ongoing from commencement date.
3.2	<p>The fire management plan must be reviewed at intervals of no less than 4 years and no more than 6 years by an appropriately qualified person. The review is to consider the efficacy of the management actions in the plan and consider the effectiveness of the matters contained in the current plan that are outlined in the dot points below. Notification of the date of the review commencement must be provided to the Director General in writing within 14 days of the commencement of the review. The findings of the review must be submitted to the Director General within 3 months of commencing the review.</p> <p>Where the Director General determines from the review that an update of the fire management plan is required, the Director General will notify the landowner in writing that an update of the plan is required. The landowner must update the plan and submit it to the Director General for approval within 3 months of receiving written notification from the Director General that an update of the plan is required. The revised plan must be prepared by an appropriately qualified person and cover the matters outlined below and any additional matters specified by the Director General in writing:</p> <ul style="list-style-type: none"> • the year the last fire went through, the type of fire and the extent of the fire and location, where known • frequency of natural fires in the area of the biobank site, where known • a description of locations and management zones where ecological burns will be conducted and areas that will not be burnt • the methods that will be used for ecological burns • the fire frequency intervals recommended for the vegetation types and threatened species present, including any required adjustment to the schedule in the event of a wildfire or activities undertaken under the <i>Rural Fires Act 1997</i> to ensure minimum frequency between ecological burns • the fire intensity for the recommended vegetation types • the time of year suitable for ecological burns • the diary for recording actions taken in accordance with the fire management plan and minor alterations to fire management plan permitted for adaptive management. The details (management zone/s, date, alternative action) and reasons for the minor alterations must be recorded in the diary. 	Ongoing from first payment date.
3.3	<p>Fires must not be lit on the biobank site other than for the purpose of ecological burning in accordance with the fire management plan or as permitted as a permissible human activity on the biobank site under item 4 of this Annexure or</p>	Ongoing from commencement date.

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	clause 3.6 of this agreement.	
Item 4	Management of human disturbance	Timing
4.1	Except as permitted under clause 3 of this agreement or item 4.2 (below), human activities that adversely affect biodiversity values on the biobank site, including repeated disturbance of native animals, must not be carried out, or caused or permitted to be carried out, on the biobank site.	Ongoing from commencement date.
4.2	Human activities that may have a negative impact on biodiversity values on the biobank site are permitted if they are listed as permissible activities under clause 3.6 of this agreement or if they are undertaken as part of the management actions or management plans.	Ongoing from commencement date.
4.3	All waste shown on the map entitled Property Management Actions Map dated 17/12/2013 must be removed from the biobank site in an appropriate manner.	Commencing from first payment date and as staged in the management costing.
	If there is no waste on the biobank site delete the words of this item (but retain the numbering) and replace with: 'This item is not applicable.'	
4.4	The landowner must not store, dispose of, or cause or permit to be disposed of, any waste on the biobank site. Note: The storage or disposal of waste on the biobank site may require an approval under the <i>Protection of the Environment Operations Act 1997</i> .	Ongoing from commencement date.
4.5	The landowner must take all reasonable steps to remove waste deposited by others on the biobank site, or which is otherwise present on the biobank site.	Ongoing from first payment date.
4.6	Fencing and/or signage must be installed and maintained to deter human disturbance including waste dumping. Signage must be the BioBanking signs available from the OEH. Specific requirements: <ul style="list-style-type: none"> New Security Fence along both sides of Rhondda Road bisecting eastern end of Biobank site (approximately 1110m) to be erected and maintained as identified on Property Management Action Map dated 17/12/2013. New Stock Fence along eastern, southern and northern boundaries (approximately 4,565m) to be erected and maintained as identified Property Management Action Map dated 17/12/2013 New High Tensile Steel Cable Fence at entrance of southern haul road on southern boundary (approximately 225m) maintained as identified Property Management Action Map dated 17/12/2013 Biobank Signage to be installed and maintained at 10 locations as identified on maintained as identified Property Management Action Map dated 17/12/2013. 	Ongoing from first payment date as staged in the management costing.
	Signage should be located at points of access and other practical locations interfacing with adjoining properties. For biobank sites that are located fully within a larger private landholding, there should be at least one BioBanking sign to be placed at the main access gate to the site.	

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	It is recommended that required signage be installed within 3 months of first payment date.	
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<p>Item 5</p>	<p>Retention of regrowth and remnant native vegetation</p> <p>Note: An approval under the <i>Native Vegetation Act 2003</i> may be required to carry out thinning or any other removal or damage to native vegetation under this item.</p>	<p>Timing</p>
<p>5.1</p>	<p>Native vegetation (whether remnant native vegetation or regrowth) on the biobank site must not be cut down, felled, thinned, logged, killed, destroyed, poisoned, ringbarked, uprooted, burnt or otherwise removed, except in accordance with item 5.2 below, or if it is required as part of the management actions or it is essential for the carrying out of permissible development under clause 3.5 of this agreement.</p> <p>Note: Native vegetation on the biobank site may be managed to improve biodiversity values by thinning to benchmark stem densities over no more than 80% of each management zone. Benchmark stem densities has the same meaning as defined in the Vegetation Benchmark Database as published by OEH and updated from time to time. An approval under the <i>Native Vegetation Act 2003</i> may be required to carry out thinning or any other removal or damage to native vegetation under this item.</p>	<p>Ongoing from commencement date.</p>
<p>5.2</p>	<p>Native vegetation on the biobank site must not be burnt except in accordance with the fire management plan prepared pursuant to item 3 above.</p>	<p>Ongoing from commencement date.</p>
<p>Item 6</p>	<p>Replanting or supplementary planting where natural regeneration will not be sufficient</p>	<p>Timing</p>
<p>6.1</p>	<p>The landowner must undertake planting or seeding of the native groundcover/shrub/tree species indicated in the planting schedule for the biobank site as set out in item 6.6 below ('the planting schedule') in the areas of planting and within the timeframe indicated in the planting schedule.</p> <p>If the landowner cannot complete the planting within the timeframe indicated in the planting schedule due to local weather conditions, the landowner must complete the planting as soon as possible after that date and must make a record of and retain the reasons why the planting was not completed by the required time.</p> <p>Appropriate site treatment (e.g. weed control) of each area of planting or seeding identified in the planting schedule must be undertaken prior to such planting.</p> <p>Specific requirements:</p> <ul style="list-style-type: none"> • Soil seedbank from native vegetation approved for clearance in Teralba Quarry will be translocated onto MZ3 and MZ4 of the Management Plan Management Zone Map dated 17/12/2013 as described in the rehabilitation plan. • The translocated soil seedbank will be used from intact undisturbed native vegetation with no or negligible weed presence • Soil seedbank from biometric vegetation type HU622 Smooth-barked Apple-Sydney peppermint Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin will be used for MZ3. • Soil seedbank from biometric vegetation type HU631 Spotted Gum-Grey Ironbark on the foothills of the Central 	<p>Commencing from first payment date or when soil seedbank material becomes available.</p>

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	<p>Coast , Sydney Basin will be used for MZ4.</p> <ul style="list-style-type: none"> Site preparation prior to soil seedbank translocation will entail removal of dumped material and site re-shaping as required and weed eradication through at least two herbicide spray applications 	
	<p>Include details regarding site treatment that must be undertaken before planting each area under the 'Specific requirements'.</p> <p>Planting or seeding is only required where natural regeneration is not sufficient to bring back native vegetation.</p> <p>Where no replanting is required, delete the words in every point of this item (but retain the numbering) and replace with: 'This item is not applicable.'</p>	
6.2	<p>This item is not applicable</p>	
	<p>If required, different years or heights for specific types of plants can be listed under 'Specific requirements'.</p>	
6.3	<p>The landowner must survey each area of planting or seeding established under item 6.1 above and document them to determine whether the planted plants or seeds have established and survived, and retain the findings in accordance with the record keeping requirements.</p> <p>If, after the first survey or subsequent surveys, the establishment and survival rate of plants in an area of planting or seeding are below those usual for the species and region, the landowner must supplement the planting in the adversely affected areas within a reasonable timeframe (usually within 12 months, though this can be varied and recorded in a diary with reasons for variation, if the weather is unsatisfactory for the establishment and survival of plants or seeds).</p>	<p>Conduct the first survey 24 months after the completion of planting or seeding in each area of planting or seeding, and then every 12 months thereafter.</p>
6.4	<p>Areas of planting and seeding must be managed as required to assist the establishment and survival of native plant species.</p> <p>Management includes watering, slashing, scalping, spraying of weeds, plant replacement and strategic grazing by stock (in accordance with item 6.2 above) at strategic times of the year to control weeds to improve biodiversity values. The dates of planting must be recorded in accordance with the record keeping requirements set out in Annexure D.</p>	<p>As required, from the date that planting or seeding areas are established.</p>
6.5	<p>Seeds and plants used for planting and seeding must be obtained from locally collected provenances, unless there are reasons to do otherwise (e.g. to ensure genetic variability or for adaptation to climate change).</p>	<p>As required (from commencement date if relevant to prepare for future planting).</p>

The planting schedule should be filled in including:

- number of plants per area** – for tubestock, the number of plants should be rounded to the nearest 100 if there are more than 1,000 plants or to the nearest 10 if there are 1,000 plants or less; if direct seeding is used leave this field blank
- planting method** – specify whether plants are to be tubestock, direct seeding or another method
- timing** – describe as the number of months (or Year if relevant (ie Year 1, Year 2, etc)) for completion of planting from the first payment date.

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6.6 Planting schedule at the biobank site					
Species' common name	Species' scientific name	Management zone/s of planting	Number of plants per area	Planting method	Timing (months or Year)
Soil seedbank from biometric vegetation type HU622 Smooth-barked Apple-Sydney peppermint Turpentine heathy open forest on plateaux areas of the southern Central Coast , Sydney Basin		MZ3		Soil seedbank translocation	As the soil seedbank become available from quarry operations
Soil seedbank from biometric vegetation type HU631 Spotted Gum-Grey Ironbark on the foothills of the Central Coast , Sydney Basin will be used for MZ4.		MZ4		Soil seedbank translocation	As the soil seedbank become available from quarry operations

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Item 7	Retention of dead timber	Timing
7.1	<p>Dead timber (whether standing or fallen and including branches and leaf litter) must not be removed from or moved within the biobank site except for the personal (non-commercial) use by the landowner for firewood for one dwelling only or for repair of fencing (not for construction of fencing).</p> <p>Dead timber used for fencing repair must be documented by the landowner in writing and records must be kept in accordance with the record keeping requirements. The landowner must record the approximate amount of dead timber collected from the biobank site for use in fencing, the location that that dead timber was collected from and the date it was collected (month, year).</p> <p>Specific requirements:</p> <p>No dead timber (whether standing or fallen) to be removed from the Biobank site</p>	Ongoing from commencement date.
7.2	<p>Timber from outside the biobank site may be introduced to and placed on the biobank site to improve biodiversity values. Once the timber has been brought onto the site, it is subject to the requirements of item 7.1 above.</p> <p>Timber brought from outside the biobank site must be documented by the landowner in writing and records must be kept in accordance with the record keeping requirements. The landowner must record the approximate amount of timber brought from outside the biobank site, the location where the timber was placed on the biobank site and the date on which it was placed (month, year).</p> <p>Specific requirements:</p> <p>Timber from vegetation approved for clearance at Teralba Quarry site may be placed on the site in particular MZ3 and MZ10 once vegetation clearance commences</p>	When required but not required before the first payment date.
Item 8	Erosion control	Timing
8.1	<p>All reasonable steps must be undertaken to prevent, control and remedy erosion on the biobank site.</p> <p>Soil management for preventing and controlling erosion is to be undertaken using best practice management, such as that developed by the Soil Conservation Service, applied as relevant for the biobank site.</p> <p>The landowner must manage existing erosion and areas of subsidence from historic underground mining on the biobank site, identified on the map entitled Property Management Actions Map dated 17/12/2013, by:</p> <ul style="list-style-type: none"> • Filling subsidence areas with soil removed by the Teralba Quarry operations <ul style="list-style-type: none"> • The deposition of soil and the soil type used to fill subsidence areas should where possible reflect the soil horizon layers of the surrounding landscape. 	Commencing from first payment date.

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	<ul style="list-style-type: none">• The biobank site should be monitored annually and new subsidence areas filled within 6 months of identification	
	If there is no existing erosion, delete the last paragraph.	

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Item 9	Retention of rocks	Timing
9.1	The landowner must not remove, or cause or permit to be removed, rocks from the biobank site or move, or cause or permit to be moved, rocks within the biobank site.	Ongoing from commencement date.
9.2	Rocks from outside the site may be placed on the biobank site to improve habitat for threatened species. Rocks, once placed on the biobank site, are subject to item 9.1 above. The landowner must make and retain records of the location of the rocks placed on the site and the date the rocks were brought onto the site in accordance with the record keeping requirements.	When required but not required before the first payment date.

Section 2: Additional management actions

Additional management actions should only be completed when they are required for creating ecosystem credits or species credits. This will be stated on the Biobanking Agreement Credit Report.

Complete the required fields for any additional management actions required for your site. Leave all other additional management actions and OEH will delete them before including this section in your draft biobanking agreement.

Additional management actions		
Item 10	Control of feral and overabundant native herbivores	Timing
10.1	<p>The landowner must implement, and at all relevant times, comply with the management plan to control feral and overabundant native herbivores included in Section 4 (or such updated management plan as has been approved by the Director General under item 10.2 below) (the feral and overabundant native herbivores management plan). To allow for adaptive management, minor alterations can be made to the implementation of the feral and overabundant native herbivores management plan, which must be recorded in writing in accordance with Section 3 of this Annexure.</p> <p>Note: A licence under Section 121 of the <i>National Parks and Wildlife Act 1974</i> may be required to control overabundant native herbivores.</p>	Ongoing from first payment date.
10.2	<p>The feral and overabundant native herbivores management plan must be reviewed at intervals of no less than 4 years and no more than 6 years. The review is to consider the efficacy of the management actions in the plan and consider the effectiveness of the matters contained in the plan that are outlined in the dot points below. Notification of the date of the review commencement must be provided to the Director General in writing within 14 days of the commencement of the review. The findings of the review must be submitted to the Director General within 3 months of commencing the review.</p> <p>Where the Director General determines from the review that an update of the feral and overabundant native herbivores management plan is required, the Director General will notify the landowner in writing that an update of the plan is required and the landowner must update the plan and submit the amended plan to the Director General for approval within 3 months of receiving written notification from the Director General that an update of the plan is required. The revised plan must cover the matters outlined below and any additional matters specified by the Director General in writing:</p> <ul style="list-style-type: none"> • a description of the feral or overabundant native herbivore/s • consideration of relevant current OEH and other pest management programs and methods • the method/s for feral and overabundant native herbivore control in each management zone, determined in accordance with best 	Ongoing from first payment date.

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	<p>practice management</p> <ul style="list-style-type: none"> the frequency and timing of the control actions in each management zone methods for monitoring the success of the pest control actions a timetable and measures for inspections to identify new feral or overabundant native herbivores that may adversely affect biodiversity values on the biobank site additional control actions to destroy or remove any new feral and overabundant native herbivore pest species that occur on site measures for assessing and reporting monitoring results a diary for recording actions taken in accordance with the feral and overabundant native herbivores management plan and minor alterations to this plan permitted for adaptive management. The details (management zone/s, date, alternative action) and reasons for the minor alterations must be recorded in the diary. 	
Item 11	Vertebrate pest management – Foxes and as required: Rabbits, Cats and Pigs	Timing
11.1	<p>The landowner must implement, and at all relevant times, comply with the vertebrate pest management plan included in Section 4 (or such updated vertebrate pest management plan as has been approved by the Director General under item 11.2 below) ('the vertebrate pest management plan'). To allow for adaptive management, minor alterations can be made to the implementation of the vertebrate pest management plan, but these must be recorded in writing in accordance with Section 3 of this Annexure.</p>	Ongoing from first payment date.
11.2	<p>The vertebrate pest management plan must be reviewed at intervals of no less than 4 years and no more than 6 years by an appropriately qualified person. The review is to consider the efficacy of the management actions in the plan and consider the effectiveness of the matters contained in the current plan that are outlined in the dot points below. Notification of the review commencement must be provided to the Director General in writing within 14 days of the commencement. The findings of the review must be submitted to the Director General within 3 months of commencing the review.</p> <p>Where the Director General determines from the review that an update of the plan is required, the Director General will notify the landowner in writing that an update of the plan is required. The landowner must update the plan and submit it to the Director General for approval within 3 months of receiving written notification from the Director General that an update of the plan is required. The revised plan must cover the matters outlined below and any additional matters specified by the Director General in writing:</p> <ul style="list-style-type: none"> a description of the target fauna species e.g. pigs, foxes or other species such as feral dogs or goats consideration of relevant current OEH and other pest management programs the method/s of vertebrate pest control in each management zone determined in accordance with best management practice the frequency and timing of vertebrate pest control actions in 	Ongoing from first payment date.

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	<p>each management zone</p> <ul style="list-style-type: none"> • methods for monitoring the success of vertebrate pest control actions • a timetable and measures for inspections to identify new vertebrate pest species that may negatively impact on threatened species on the biobank site • additional vertebrate pest control actions to destroy or remove any new vertebrate pest species that occur on-site • measures for assessing and reporting monitoring results • a diary for recording actions taken in accordance with the vertebrate pest management plan and minor alterations to this plan permitted for adaptive management. The details (management zone/s, date, alternative actions) and reasons for the minor alterations must be recorded in the diary. 	
Item 12	Nutrient control	Timing
12.1	Fertilisers, pesticides and herbicides must not be applied on the biobank site, except where required to undertake the management actions. Use of fertilisers for establishing native vegetation through planting or seeding, use of herbicides for controlling weeds or use of pesticides for controlling vertebrate pests or feral herbivores can be undertaken in accordance with best practice management when required to undertake the management actions.	Ongoing from commencement date.
Item 13	Control of exotic fish species	Timing
13.1	This item is not applicable	
Item 14	Maintenance or reintroduction of natural flow regimes	Timing
14.1	This item is not applicable	
14.2	This item is not applicable	
14.3	This item is not applicable	

Section 3: Standard management plans

Completing the compulsory weed management plan

A table is provided below for the integrated weed management plan. Add additional sections to the table if required.

The plan must include, but is not limited to:

- a description of the target weed/s at the biobank site and their location/s, linked to each management zone where weeds are present
- the method/s of weed control in each management zone
- the frequency of weed control activities at the site, taking into account management practices where weeds are providing habitat for native species
- the timing of any planting of native plant species required in each management zone to provide alternative habitat for native species affected by weed control activities
- methods for monitoring weed control activities
- reporting and assessing the results from monitoring
- a timetable/measures for inspections to identify new weed species or exotic plant species (including noxious weeds under the *Noxious Weeds Act 1993*)
- a diary for recording actions taken in accordance with the integrated weed management plan and minor alterations to this plan permitted for adaptive management. The details (management zone/s, date, alternative action) and reasons for the minor alterations must be recorded in the diary.

When the management plan is reviewed (see item 2.2), weed control activities may be amended, deleted or added to take into account the weed species on the site at that time.

Weed management plan

The weed types, description and location (management zone/s) of weed infestations existing at the commencement date are listed in the weed management plan. The methods of weed control (management actions), monitoring and inspections are also listed.

The landowner must perform the methods of weed control and other weed management activities and monitoring in the weed management plan by the methods described (and in accordance with item 2 of this Annexure) for all weeds. The methods of control will apply to the weeds listed in the table below as well as any other weeds that may be present on the site from time to time.

The template for reporting of monitoring activities and the diary template for weed control management must be filled in to record observations during the implementation of the weed management plan, including any minor variations.

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Weed types				
Weed	Common name of target weed	Scientific name of target weed	Description of infestation (eg intensity (% cover) & location within zone)	Management zone/s
A	Lantana	<i>Lantana camara</i>	Scattered throughout site (see some specific locations of larger thickets on Property Management Action Map dated 17/12/13) and heavy infestations in MZ 2	1, 2, 5
B	Blackberry	<i>Rubus</i> sp.	Scattered throughout site particularly along drainage lines	1,2,5
C	Pampas Grass	<i>Cortaderia selloana</i>	Scattered throughout site	1,2,5
D	Turkey Rhubarb	<i>Acetosa sagittata</i>	Minor seeding in areas worked in current bush-regeneration A few locations within more disturbed areas	1, 2
E	Small-leaved Privet	<i>Ligustrum sinense</i>	Minor seeding in areas worked in current bush-regeneration program. Heavier infestations along drainage lines in MZ2	1,2
F	Crofton Weed	<i>Ageratina adenophora</i>	Primarily located along drainage lines and moist roadside edges	1,2,3,4,5
G	Boneseed	<i>Chrysanthemoides monilifera</i> subsp. <i>monilifera</i>	A few locations within more disturbed areas	Mainly adjacent to site
H	Camphor laurel	<i>Cinnamomum camphora</i>	A few locations within more disturbed areas	2
I	Purpletop	<i>Verbena bonariensis</i> and <i>rigida</i>	Scattered throughout site	2,3,4
J	Panic Veldtgrass	<i>Ehrharta erecta</i>	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
K	Carpet Grass	<i>Axonopus</i> sp.	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
L	Cotula	<i>Cotula</i> sp	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
M	Red Natal	<i>Melinis repens</i>	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
N	Paspalum	<i>Paspalum dilatatum</i> and <i>urvillei</i>	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
O	Kikuyu	<i>Pennisetum</i>	Scattered on road edges and in disturbed	1, 2, 3, 4, 5

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		<i>clandestinum</i>	areas	
P	Pigeon Grass	<i>Setaria</i> sp.	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
Q	Catsear	<i>Hypochaeris radicata</i>	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
R	Whiskey Grass	<i>Andropogon virginicus</i>	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
S	Fireweed	<i>Senecio madagascariensis</i>	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
T	Lamb's Tongues	<i>Plantago lanceolata</i>	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
U	Briza Grass	<i>Briza</i> sp	Scattered on road edges and in disturbed areas	1, 2, 3, 4, 5
V	Mickey Mouse Plant	<i>Ochna serrulata</i>	Minor seeding in areas worked in current bush-regeneration A few locations within more disturbed areas	1, 2,
W	Senna	<i>Senna pendula</i>	Scattered throughout site	1, 2
Methods of weed control				
Management zone/s	Weeds/s	Method of weed control		Frequency (months or Year)
All	All	All weed control activities will be undertaken by, or under the direct supervision of, an appropriately qualified bush regenerator		Ongoing, from the first payment date.
All	All	<p>The level of effort applied to weed control work across the biobank site will involve the following:</p> <ul style="list-style-type: none"> (a) for years 1-2 a minimum of 1197 hours of weed control work will be undertaken each year (b) for year 3 a minimum of 1827 hours of weed control work will be undertaken each year (c) for years 4 -5 a minimum of 1270 hours of weed control work will be undertaken each year (d) for years 6 -9 a minimum of 1046 hours of weed control work will be undertaken each year (e) from year 10 onwards a minimum of 682 hours of weed control work will be undertaken each year. 		Ongoing, from the first payment date
All	Boneseed Lantana, Small-leaved Privet, Camphor laurel, Senna, Purpletop,	<p>Large individuals: Cut and Paint or Stem Injection/Frilling techniques:</p> <p>Stem Injection/Frilling: Make downward holes at a 45° angle about 5cm apart into the sapwood (light coloured) of the trunk using a cordless drill, chisel, hatchet etc. Pour undiluted herbicide such as Roundup Biactive into the holes using an applicator bottle, drench gun and backpack etc</p> <p>Cut woody stem (with secateurs, loppers, pruning saw etc) flat</p>		<p>Throughout the year while weeds are actively growing.</p> <p>Herbicide spray on dense seedlings</p>

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	Crofton Weed	<p>and close to ground level and apply undiluted herbicide such as Roundup Biactive within a few seconds to the sapwood (light coloured) using an applicator bottle or brush.</p> <p>Smaller individuals: Manual Removal technique: Hand pull from base of plant to remove all roots from the soil using a trowel to assist if required for long tap roots</p> <p>Dense seedlings: Herbicide Spray technique: Apply herbicide such as Roundup Biactive in concentration recommended on the herbicide label using a spray bottle, knapsack spray etc.</p> <p>Note: Herbicide use in the vicinity of creeks, and wetlands should comprise only Roundup Biactive.</p>	should occur ideally after all seedlings have germinated.
All	Blackberry	<p>Herbicide Spray technique: Apply herbicide registered for blackberry control in concentrations recommended on the herbicide label using knapsack spray etc. Thoroughly apply herbicide to all foliage areas.</p> <p>Cut and Paint or Stem Injection/Frilling techniques (see above) may also be used on scattered individuals.</p> <p>Notes: Herbicide use in the vicinity of creeks, and wetlands should comprise only Roundup Biactive.</p> <p>A number of treatments may be required to effectively eradicate plants – particularly if plants are mature.</p>	Apply herbicide when blackberry is actively growing and free of stress from flowering through to fruiting – usually during December, January, February and March.
Roadside edges and disturbed areas	All weedy grasses and herbs listed above	<p>Herbicide Spray technique: Apply herbicide such as Roundup Biactive in concentration recommended on the herbicide label using a spray bottle, knapsack spray etc.</p> <p>Notes: Generally these weeds are confined only to disturbed roadside edges and their control is not seen as a high priority except after fire.</p> <p>Herbicide use in the vicinity of creeks, and wetlands should comprise only Roundup Biactive</p>	Annually
Native planting required to provide habitat for native species affected by weed control activities			
Management zone	Description of planting required (reference planting schedule at item 6.6)		Timing
Monitoring and inspections of existing and new weeds			
Management zone/s	Weed/s	Method of monitoring	Date/s required

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All	All	Monitoring of the weed control activities must be undertaken by a suitably qualified bush regenerator or ecologist. Monitoring outcomes will be reported using the 'Template for reporting of monitoring activities' below.	All
All	All	<u>Visual inspections and reporting of completed works</u> A visual inspection of all management zones must be also be undertaken annually, at the completion of each year from the first payment date. For each management zone, the following information will be reported: <ul style="list-style-type: none"> • A summary and review of all weed control activities undertaken within the previous 12 months for each vegetation zone and their success • Description of general site conditions within each management zone (weed abundance, regeneration occurring, erosion, feral animal presence, threatened flora and fauna observed etc.) • Description and mapping of significant environmental weed infestations (type, location, area covered, foliage cover etc.) within each zone. Visual estimates of the percentage foliage cover of weeds (herbaceous/woody) are to be undertaken (e.g. <5%, 5-25%, 25-50% and >50%). If no weed infestations are present within a management zone, this is to be documented. • Annual photographic record compiled from photos taken at locations outlined on the 'Photo points' map dated 17/12/2013 in Annexure A of this agreement. Photos are to be taken from a fixed location each year (e.g. star picket) in the same orientation (e.g. looking west) to enable visual comparison over time. • Recommendations, if necessary, for any adaptations to the weed control measures previously applied. • Recommendations for any high priority areas for the subsequent 12 month period. 	All
Other weed management activities (where required)			
All plot markers are to be maintained with safety caps in the same position. If noted to have been damaged or disturbed during weed management or by undertaking any weed management they must be replaced.			
All vehicles and equipment are to be thoroughly washed down using a high pressure hose to remove mud/dirt and weed propagules. Insides of vehicles are to be vacuumed to remove weed propagules. Footwear is to be cleaned of weed propagules before entry to the Biobank site.			
Template for reporting of monitoring activities			
Management zones/s	Date	Observations and assessment of monitoring This table must include the information for each zone (or groups of zones) which is described in the table titled 'monitoring and inspections of existing and new weeds'.	

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Diary template for weed control management

Date	Management zone/s	Description and type of activity undertaken (e.g. weed control, observation)	Minor variations (details and reasons)

Completing the compulsory fire for conservation management plan

A table is provided below for the fire conservation management plan. Add additional sections to the table if required. The plan must include, but is not limited to:

- a map of the vegetation on the biobank site (with date) and any infrastructure and built assets on the biobank site (the map to be included in the biobanking agreement)
- the year the last fire went through, the type of fire and the extent of the fire and location, where known
- frequency of natural fires in the area of the biobank site, where known
- a description of locations and management zones where ecological burns will be conducted and areas that will not be burnt
- the methods that will be used for ecological burns
- the fire frequency intervals recommended for the vegetation types and threatened species present, including any required adjustment to the schedule in the event of a wildfire or activities undertaken under the *Rural Fires Act 1997* to ensure minimum frequency between ecological burns
- the fire intensity for the recommended vegetation types
- the time of year suitable for ecological burns
- methods for monitoring the outcomes of ecological burns
- reporting and assessing the results from monitoring
- the diary for recording actions taken in accordance with the fire management plan and minor alterations to this plan permitted for adaptive management. The details (management zone/s, date, alternative action) and reasons for the minor alterations must be recorded in the diary in accordance with the record keeping requirements.

Fire for conservation management plan

The plan includes information on all known previous fire events in the 'Fire history' table to demonstrate local fire conditions including intensity and frequency.

The ecological fire requirements for each vegetation type or threatened species on the biobank site are listed in the 'Fire requirements for vegetation types and threatened species' table. These are the fire frequency intervals recommended for the vegetation types and threatened species present on the biobank site. They include any requirement adjustments to the schedule in the event of a wildfire or activities undertaken under the *Rural Fires Act (RFA) 1997* to ensure the minimum frequencies between ecological burns.

The landowner must carry out ecological burns for each management zone according to the method and frequency described (as informed by the history and requirements sections and in accordance with Section 3 of this annexure). These actions are set out in the 'Ecological burning actions table'. Monitoring and inspections (set out in the 'Fire management monitoring' table) as described must also be implemented. The landowner must also carry out the actions listed in the 'Other fire management activities' table.

The table titled 'Template of monitoring activities' must be completed to record observations during the implementation of the plan and assessment of monitoring activities. The landowner must also complete the table titled 'Diary template for fire management activities' to record the management actions undertaken or observations made, including any minor variations.

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Fire history for previous 20 years (or longer if known)				
Year of fire	Hazard reduction, wildfire or ecological burn and extent of fire			Management zone/s
1998	Wildfire: small section below pistol club (part of burn unit D of Ecological Burn Units Map' dated 17/12/2013)			
2002	Wildfire: entire site south of Rhondda Road except for portion north of McEwan Street entrance into quarry (burn units A, B, C, and D of Ecological Burn Units Map' dated 17/12/2013)			
Est. 1- 3 years prior	South west section, west of the Haul road (burn unit C of Ecological Burn Units Map' dated 17/12/2013)			
Fire requirements for vegetation types and threatened species				
Vegetation type and/or threatened species	Fire frequency required	Time of year for burning	Fire intensity required	Adjustment required due to wildfires or RFA activities
Spotted Gum - Grey Ironbark open forest on the foothills of the central Coast, Sydney Basin	Avoid fire intervals of less than 5 and more than 50 years	April - September	Small scale, moderate intensity	Adjust frequency to ensure minimal interval is maintained if a wildfire or hazard reduction burn has occurred.
Sydney Blue Gum - White Mahogany shrubby tall open forest of coastal ranges of the southern North Coast	Avoid fire intervals of less than 25 and more than 60 years	April - September	Small scale, moderate intensity	Adjust frequency to ensure minimal interval is maintained if a wildfire or hazard reduction burn has occurred.
Smooth-barked Apple - Sydney peppermint - Turpentine heathy open forest on plateaux areas of the southern Central Coast, Sydney Basin	Avoid fire intervals of less than 7 and more than 30 years	April - September	Small scale, moderate intensity	Adjust frequency to ensure minimal interval is maintained if a wildfire or hazard reduction burn has occurred.
<i>Tetratheca juncea</i>	No fire more than once every 7 years	April - September		Adjust frequency to ensure minimal interval is maintained if a wildfire or hazard reduction burn has occurred.
<i>Callistemon linearifolius</i>	No fire more than once every 7 years	April - September		Adjust frequency to ensure minimal interval is maintained if a wildfire or hazard reduction burn has occurred.
Ecological burning actions				
Management zone/s	Actions	Supervision & extinguishing	Time of year for	Frequency (years)

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		techniques	burning	
MZ 3, 10 (Strategic Re-planting),	Exclude ecological burns from strategic planting areas for at least 10 years post re-vegetation			
MZ7 Easement	Exclude ecological burn from retained easement as appropriate			
	<p>Ecological burns should be carried out in a staged/mosaic process to address the minimum fire frequency recommended for the vegetation community.</p> <p>Indicative Ecological Burn Units are identified in Ecological Burn Units Map' dated 17/12/2013.</p> <p>From year 1, Burn Units are to undergo a cycle of ecological burns approximately every 5-8 years to result in a 20-32 year fire interval across the 4 Burn Units on the Biobank site. The Burn Unit sequence is D followed by A followed by B followed by C.</p>	<p>Suitably experienced organisations such as the Rural Fire Service (RFS) to be engaged to supervise preparation of burn area, undertake burn and extinguish.</p> <p>Extinguishing techniques as applicable which may include containment lines comprising of exiting management trails, back burned areas or wet lines. Use of strategic water points and rack-hoe containment lines if tanker access is not possible</p>	<p>April - September</p>	<p>Commence in year 1 and may occur every 5-8 years, ensuring fire interval at least 10 years for a given location</p> <p>If a wildfire or hazard reduction burn occurs, any subsequent planned burn may only be undertaken in that area after 10 years from the date of the preceding fire</p> <p>Burn Unit D Year 1</p> <p>Burn Unit A No sooner than year 6.</p> <p>Burn Unit B no sooner than year 12</p> <p>Burn Unit C no sooner than year 18</p>
Methods for monitoring the outcomes of ecological burns				
Management zone/s	Method of monitoring			Date/s required

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Other fire management activities (where required)		

Template for reporting of monitoring activities		
Management zone/s	Date	Observations and assessment of monitoring

Diary template for fire management activities			
Date	Management zone/s	Description of activity undertaken or observation made	Minor variations (details and reasons)

Section 4: Additional management plans

If required, complete this control of feral and overabundant native herbivores management plan

A table is provided below for the management plan to control feral and overabundant native herbivores. Add additional sections to the table if required. The plan must include, but is not limited to:

- a description of the feral or overabundant native herbivore/s
- consideration of relevant current OEH and other pest management programs and methods
- the method/s for feral and overabundant native herbivore control in each management zone, determined in accordance with best practice management
- the frequency and timing of the control actions in each management zone
- methods for monitoring the success of the pest control actions
- reporting and assessing the results from monitoring
- a timetable and measures for inspections to identify new feral or overabundant native herbivores that may adversely affect biodiversity values on the biobank site
- a diary for recording actions taken in accordance with the management plan to control feral and overabundant native herbivores and minor alterations to this plan permitted for adaptive management. The details (management zone/s, date, alternative action) and reasons for the minor alterations must be recorded in the diary.

When the management plan is reviewed (see item 10.2 in Section 1), control activities may be amended, deleted or added to take into account the feral and overabundant native herbivore on the site at the time.

Management plan to control feral and overabundant native herbivores

The management plan for feral and overabundant native herbivores includes information on the management requirements for the feral and overabundant native herbivores at the biobank site listed in the 'Feral and overabundant native herbivores' table. The possible methods of control for each species, used by OEH and other pest management programs, are listed and the suitability of each method is described in the 'Methods considered' table.

The landowner must carry out the methods for control for feral and overabundant native herbivores for each management zone according to the method and frequency as described in the 'Methods for control' table. The methods of control applied to the feral or overabundant native herbivores listed in the 'Feral or overabundant native herbivores' table as well as any other feral or overabundant herbivores that may be present on the site from time to time.

Monitoring and inspections of existing and new feral and overabundant herbivores at the biobank site as described in the 'Monitoring and inspections' table must be implemented.

The table titled 'Template for reporting of monitoring activities' must be completed to record observations during the implementation of the plan and assessment of the monitoring activities. The landowners must complete the table titled 'Diary template for feral and overabundant herbivore management' to record the management actions undertaken including any minor variations or observations made.

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Feral and overabundant native herbivores			
Feral type	Name of feral/overabundant native herbivore	Description of extent	Management zone/s
A	Rabbit	Currently no evidence of rabbit activity however there is a risk rabbits may become a problem on the biobank site in the future due to adjacent rural landuse, seasonal conditions etc	All
B			
C			
D			
E			
Methods considered			
Feral type	Name and description of program or method	Describe suitability	
A	Warren destruction and burrow fumigation	Appropriate where active warrens identified.	
A	Pindone poison baits	Effective means of controlling rabbits however to reduce risk to non-target species such as bandicoots and kangaroos, any use of Pindone baits must be done in such a way that bandicoots and kangaroos cannot access baits (i.e. daytime baiting only using bait stations not accessible by macropods).	
Methods of control			
Management zone/s	Feral type	Method of control	Frequency and timing
All	All	<p><u>Priorities for feral pest control</u></p> <p>The landowner must ensure a suitably qualified bush regenerator or person determine the priorities for feral pest control in the biobank site.</p> <p>The priorities must be based on the results of the monitoring program described in the 'Monitoring and inspections of feral pests' section of this plan.</p> <p>The priorities must be recorded annually in the</p>	Annually, at the completion of each year from the first payment date

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		'Template for reporting feral pest activity'.	
All	A	Warren destruction and burrow fumigation as required	Appropriate where active warrens identified.
	A	Pindone poison baits to avoid access by bandicoots and macropods only if required for significant numbers of rabbits	To be determined as required by a suitably qualified bush regenerator or person, in consultation with the project manager or landowner.

Monitoring and inspections

Management zone/s	Feral type/s	Method of monitoring	Date/s required
All	A	Monitoring is to comprise a regular walk over of the site (at least twice yearly) and a visual estimate of the level of grazing, browsing and/or burrowing impacts. The level of impact is to be recorded as negligible, minimal, moderate or high. The monitoring will also include recording the number and location of any tracks, traces or sightings of feral or overabundant native herbivores including warrens. Ideally the monitoring will be undertaken by the personnel responsible for weed control.	Twice yearly

Other management activities (where required)

Template for reporting of monitoring activities

Management zone/s	Date	Current level of impact on vegetation This column must record impact as Negligible, Minimal, Moderate or High	Observations and assessment of monitoring

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Diary template for feral and overabundant herbivore management

Date of activity	Management zone/s	Description and type of activity undertaken This column must include details of the feral and overabundant herbivores targeted, control techniques applied and numbers controlled.	Minor variations (details and reasons)

If required, complete this vertebrate pest management plan

A table is provided below for the vertebrate pest management plan. Add additional sections to the table if required. The plan must include, but is not limited to:

- a description of the target fauna species e.g. pigs, foxes or other species such as feral dogs or goats
- consideration of relevant current OEH and other pest management programs
- the method/s of vertebrate pest control in each management zone determined in accordance with best management practice
- the frequency and timing of vertebrate pest control actions in each management zone
- methods for monitoring the success of vertebrate pest control actions
- reporting and assessing the results from monitoring
- a timetable and measures for inspections to identify new vertebrate pest species that may negatively impact on threatened species on the biobank site
- a diary for recording actions taken in accordance with the vertebrate pest management plan and minor alterations to this plan permitted for adaptive management. The details (management zone/s, date, alternative actions) and reasons for the minor alterations must be recorded in the diary in accordance with the requirements.

All pest species identified as requiring management on a biobank site must be included in the vertebrate pest management plan.

Separate management plans can be developed for each pest species.

When the management plan is reviewed (see item 11.2 in Section 1), control activities may be amended, deleted or added to take into account vertebrate pest species found on the site at that time.

Vertebrate pest management plan

The management plan for vertebrate pests includes information on the vertebrate pests and their extent existing at the time of the agreement as listed in the 'Vertebrate pests' table. The possible methods of control for each species, used by OEH and other pest management programs are listed and the suitability of each method to the biobank site is described in the 'Methods considered' table.

The landowner must carry out the methods for vertebrate pest control for each management zone according to the method and frequency described in the 'Methods of control' table. The methods of control will apply to the vertebrate pests listed in the 'Vertebrate pests' table as well as any other vertebrate pests that may be present on the site from time to time.

Monitoring and inspections of existing and new vertebrate pests on the biobank site, as described in the 'Monitoring and inspections' table, must be implemented.

The table titled 'Template for reporting of monitoring activities' must be completed to record observations during the implementation of the plan and assessment of monitoring activities. The landowner must also complete the 'Diary template for vertebrate pest management' to record the management actions undertaken, including any minor variations, and observations made.

Vertebrate pests

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Pest	Name of vertebrate pest (e.g. pig, fox, goat, dog)	Description of extent	Management zone/s
A	Fox	Foxes are known to be in the area at relatively low densities. One was observed during the biobank assessment	All
B	Cat	Cats are likely to be in the area	All
C	Pig	Pigs may be in the area at relatively low densities. Pig diggings were observed at one location during the biobank assessment	All
Methods considered			
Pest type	Name and description of program or method	Describe suitability	
A	Baiting using 1080 poison baits.	Baiting is not an option for this biobank site given proximity to Teralba and restrictions on use.	
A	Den fumigation	Appropriate where active dens identified.	
A & B	Cage trapping during breeding season or at any time regular observations of foxes or feral cats are made.	Considered most appropriate method due to the proximity of residential development and pets and the potential of baiting non-target wildlife	
A, B & C	Opportunistic shooting	Appropriate if undertaken in accordance with strict guidelines.	
Methods of control			
Management zone/s	Pest type	Method of control	Frequency and timing
All	All	<p><u>Priorities for feral pest control</u></p> <p>The landowner must ensure a suitably qualified bush regenerator or person determine the priorities for feral pest control in the biobank site.</p> <p>The priorities must be based on the results of the monitoring program described in the 'Monitoring and inspections of feral pests' section of this plan.</p> <p>The priorities must be recorded annually in the 'Template for reporting feral pest activity'.</p>	Annually, at the completion of each year from the first payment date
All	A & B	Cage trapping prior to fox breeding season (spring) as required based on observations and/or den destruction and fumigation as required	To be determined as required by a suitably qualified bush regenerator or person, in consultation with the project manager or landowner.

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All	A, B & C	Shooting by appropriately trained and qualified shooter during Spring and/or when increased activity of the pest species observed	To be determined as required by a suitably qualified bush regenerator or person, in consultation with the project manager or landowner.
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Monitoring and inspections of existing and new vertebrate pests

Management zone/s	Pest type/s	Method of monitoring	Date/s required
All	A, B & C	Monitoring is to comprise a regular walk over of the site (at least twice yearly) Monitoring is to also include recording the number and location of any tracks, traces, dens or sightings of foxes, cats, pigs and any other pest species. This information is to be used in the vertebrate pest management plan to inform the methods of control listed in that plan. Ideally the monitoring will be undertaken by the personnel responsible for weed control	Twice yearly

Other management activities (where required)

Template for reporting of monitoring activities

Management zone/s	Date	Current level of impact on vegetation or threatened fauna species This column must record impact as Negligible, Minimal, Moderate or High	Observations and assessment of monitoring

Diary template for vertebrate pest management			
Date of activity	Management zone/s	Description and type of activity undertaken This column must include details of the vertebrate pests targeted, control techniques applied and numbers controlled.	Minor variations (details and reasons)

Photo points

This section of the management actions template is not part of *Annexure C: Management actions* but is required for *Annexure D* of the biobanking agreement which requires information relating to the placement of photo points for monitoring purposes. Fill in the table below so that this information can be included in the appropriate format in the final agreement. A map of the photo point locations is also required to be submitted.

Photo points should be positioned in areas that are likely to show change over time. Some plot locations can be used as photo points but many plot locations (especially in vegetated areas already in very good condition) may not show any change over time. Locate photo points where there will be changes because of management actions such as areas currently in low to moderate condition, targeted for revegetation and/or intensive weed control.

Photos are required to be taken every 12 months at the same location, direction, height and time of day.

Annexure D: Monitoring, reporting and record keeping requirements

1 Monitoring requirements

- 1.1 The landowner must ensure that photographs are taken at photo-points at each of the locations and in the direction identified in the table below titled 'Locations of plots and photo points' within 12 months of the commencement date and then at least every 12 months thereafter.
- 1.2 The photo points are identified on the map entitled insert **Management Plan Photo Points** dated **17/12/2013** in Annexure A of this agreement. The purpose of the

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photographs is to show changes over time. Photographs should be taken at approximately the same direction, location, height and time of day (during daylight hours) in each reporting period (as defined in item 2.2 of this Annexure D) and retained for the life of this agreement. All photographs must be dated, stating the direction in which they were taken and identified with their locations.

Locations of photo points			
Projected coordinate system: GDA 94 MGA Zone 56			
Photo point reference	Easting	Northing	Direction of photo (magnetic degrees)
Ter1	367611	6352874	154.45
Ter2	367790	6352685	340.42
Ter3	367884	6353060	339.03
Ter4	367887	6351713	101.13
Ter5	368525	6352872	34.63
Ter6	367765	6351809	33.60
Ter7	368636	6351892	309.74
Ter8	368576	6352859	264.6
Ter9	368858	6351703	145.15
Ter10	368866	6352826	202.23