



**ATTACHMENTS TO REPORTS OF THE BLAYNEY SHIRE COUNCIL MEETING  
HELD ON MONDAY 16 JULY 2018**

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## Community Financial Assistance Policy

<b>Policy</b>	3I
<b>Officer Responsible</b>	Director Corporate Services
<b>Last Review Date</b>	16/07/2018

### Strategic Policy

## **Objectives**

The primary objective of the Blayney Shire Council's Community Financial Assistance Policy is, through the provision of financial assistance to community organisations, to:

- (a) encourage local participation in the development and maintenance of community projects, infrastructure and facilities for current and future generations;
- (b) foster the social, economic and/or environmental wellbeing of the community;
- (c) support local schools and individuals to recognise academic and sporting achievements of local young citizens and
- (d) develop and promote the sporting, cultural and tourism potential of the shire through events and activities that support social inclusion and attracts regional attention.

## 1. **LEGISLATION**

The Community Financial Assistance Policy has been approved by resolution of Council. It is authorised under section 356 of the *Local Government Act 1993* which permits a Council to contribute money of otherwise grant financial assistance to persons for the purpose of exercising its functions.

## 2. **ELIGIBLE RECIPIENTS**

To receive financial assistance under this policy an applicant must be an eligible community organisation. For the purposes of this policy, an eligible community organisation is a separately constituted legal entity:

- (a) which operates on a "not-for-profit" basis (meaning that any proceeds of its activities and used for the benefit of the organisation and are not available for distribution to its members); and
- (b) the members of which are predominately members of the Blayney Shire community or, if not, which organises an event or function of regional significance which is supported by Council and benefits the Blayney Shire community.

Examples include Village Progress Associations; Town Committees; Trustees of Public Halls; Schools of Arts; Showground and other Reserves; Historical Societies; Show Societies; Community Service Organisations; Educational establishments; Charity Groups; Churches and Religious establishments; Sporting Clubs; Cultural Groups and Societies; Youth Groups and Senior Citizens; CWA branches; RSL Clubs and other groups assisting Council carry out service functions (as determined by Council).

Financial assistance is provided across a broad range of activities and projects conducted by such organisations.

## 3. **CATEGORIES**

Financial assistance to community organisations is provided in two categories:

- (a) **Recurrent Annual Donations.** These are donations made to community organisations on an annual basis to assist financially with specified outgoings (such as public liability insurance), the waiver of council rates and charges, a school activity, or the holding of a regular community event or cultural activity.

Schedule 1 sets out the guidelines for determining the amount of such donations in each case.

The amount of these donations for each organisation or event is approved by Council in its annual budget contained in the Operational Plan. The General Manager may approve other donations to an organisation or event under delegated authority, provided the donation is consistent with the guidelines, within budget and reported to Council via the next available Financial Assistance Committee meeting.

~~Schedule 3 sets out the list of approved Donations for 2015/16.~~

- (b) **One-off financial assistance.** This assistance is provided for projects involving the construction, maintenance or repair of community facilities, the purchase of equipment, or for the organising and conducting of local events and functions. In each case having demonstrated broad community benefit and support. Projects must be in accordance with the Community Strategic Plan and the four year Delivery Program.

Under this category community organisations are eligible to receive Council funding via a competitive submission process. There are two (2) funding rounds each year. Applications are called in ~~August~~ June and ~~February~~ December via a public notice published in the local newspaper and on Council's website.

Applications received after the close of business on the due dates will not be considered, unless the Financial Assistance Committee in its discretion agrees otherwise. Financial assistance will be made available in June and November.

Schedule 2 to sets out guidelines for determining the amount of such donations in each case. Applications are assessed in accordance with the criteria in paragraph 8 below.

#### 4. **AMOUNT**

An annual budget allocation for the Community Financial Assistance Policy is made each year in Council's Operational Plan.

This budget allocation covers both categories described above. The amount available for the one-off financial assistance category will be calculated for each round after deducting an estimate for the cost of the recurrent annual donations category, and any prior allocation from the off financial assistance category in that financial year.

#### 5. **SPECIAL PROJECTS**

Subject to funding availability, a higher level of financial assistance may be available for special projects. These usually entail capital works such as ground works, building construction, and/or major equipment purchase. Funding for special projects is non-recurrent and is subject to the applicant entering into a management agreement for the facility with Blayney Shire Council or the Crown with Council's support.

Council assistance may include support for applications for grants made to a government or other public funding organisation. Success in such applications may result in a reduction of Council financial assistance.

#### 6. **APPROVAL PROCESS**

All applications for one-off financial assistance are decided by Council upon the recommendation of Council's Financial Assistance Committee, which is a section 355 committee of Council.

The Financial Assistance Committee is chaired by a Councillor nominated by Council and comprises the Chairman and three (3) community representatives

appointed by Council. The executive officer is Council's Director of Corporate Services.

Assessment of applications will remain confidential and no appeal is permitted as to any funding allocation decision.

## **7. ASSESSMENT CRITERIA**

Council will use the following general criteria when considering requests for financial assistance:

- (a) activities which address gaps in service or community development;
- (b) activities which promote community development in a multicultural context and seek to address issues of access and equity;
- (c) involvement from volunteers and self-help initiatives which build upon Council's contribution;
- (d) consumer / use participation in management of services / activities
- (e) innovative and creative approaches to identified needs; and
- (f) activities which use Council funding to attract further resources.

Council will give low priority to following types of requests for financial assistance:

- (a) activities/services which do not attempt to become self-supporting where the potential exists through fees or other feasible income-producing activities;
- (b) activities of a purely social nature, which do not address the needs of disadvantaged groups;
- (c) activities which are eligible for support from state-wide or regional parent bodies; and
- (d) organisations, which have not observed accountability requirements for past Council assistance.

## **8. WHAT IS NOT FUNDED?**

One-off financial assistance is not available for:

- (a) projects or organisations wholly outside the shire of Blayney;
- (b) operating or administrative overheads, such as rent, wages, office equipment or utility costs or travel, accommodation and conference costs;
- (c) projects by individuals or that benefit personal business interests;
- (d) projects that duplicate an existing project or service; or
- (e) completed projects.

## **9. GENERAL CONDITIONS/PAYMENT**

Funds approved under the community financial assistance policy are to be claimed by 30 June of the following financial year of approval. In the event that funds are not claimed the applicant shall re-apply, if required, and funds will be returned to the community financial assistance program budget for reallocation.

#### **9.1 Recurrent Annual Donations**

- (a) Where Council is providing a contribution for Rates and Sewer charges, this funding will be processed after the Rates Instalment notice has been issued in July.
- (b) For grants for sporting achievement:
  - (i) only the highest level of achievement will be recognised;
  - (ii) participation must be based on merit (not self-selection); and
  - (iii) evidence of participation and a letter of support from the relevant sporting association should be provided.
- (c) For those categorised as Public Liability Insurance, Council requires a tax invoice prior to payment of financial assistance to be accompanied by the relevant Insurance Policy and Premium notice or proof of payment. GST will be added to all financial assistance where applicable. Applicants should provide their ABN. Applicants without an ABN must submit a "Statement by a Supplier" form available from the Australian Tax Office or from Council.

#### **9.2 One-off Financial Assistance**

- (a) Projects must be clearly described, illustrate the community benefit that the financial assistance will provide and identify which of Council's vision statements in the Community Strategic Plan will be addressed.
- (b) Council does not offer any guarantee of funding as funding is subject to funds being available and not previously allocated. Also, as not all projects will receive funding, available funds will be allocated for projects that best meet the required community based criteria.
- (c) Applications that match \$ for \$ will be considered favourably. Any matching funding from the applicant or other sources are to be identified on the application.
- (d) Applicants must ensure that necessary approvals such as development applications or licences are considered prior to application lodgement. Evidence to this end in the form of a pre-development application consultation letter or correspondence from the relevant licence authority should accompany the application.
- (e) For projects involving construction / installation of new assets or renewal of existing assets on any Council controlled land, park, oval or recreational facility, consultation with the responsible Council department will be required prior to application lodgement.
- (f) Council reserves the right to manage any project approved on Council controlled land, park, oval or recreational facility as it deems required in consultation with the community organisation.
- (g) All applicants must provide certificates of currency for public liability insurance and the constitution or rules of their organisation where requested.

- (h) Council must be acknowledged in all promotional activities and must be provided with copies of advertising or promotional materials featuring Council for Council's approval prior to use in any promotional activity.
- (i) Any funds unspent at the completion of the project must be returned to Council.
- (j) Council requires a tax invoice prior to payment of financial assistance. GST will be added to all financial assistance where applicable. Applicants should provide their ABN. Applicants without an ABN must submit a "Statement by a Supplier" form available from the Australian Tax Office or from Council.
- (k) Applicants who are not registered for GST should consider the applicability of Council's Community Infrastructure Projects Policy (No. 3h) which is intended to assist such groups with projects on Council land by enabling them to recover the GST paid on taxable supplies associated with of the project.
- (l) Council fees and charges incurred in the holding of an event may be deducted before the financial assistance is paid.
- (m) For financial assistance of \$10,000 and above, a performance agreement must be completed between Council and the organisation following approval.

In submitting an application, the applicant accepts and acknowledges the general conditions set out in this Policy and in the Guidelines and in particular acknowledges that if unsuccessful it cannot appeal, contest or petition any councillor, staff member or community representative acting on behalf of or for council or its funding partners.

#### **10. APPLICATION FORM**

An application on the approved Council form must be submitted for those applicants seeking Council support under this Policy. Letters of request or verbal applications will not be accepted as funding applications.

An application form and Guidelines for applicants is available on Council's website and from Council's offices. These guidelines describe the information that must be included in the application and set out the acquittal and reporting requirements which must be complied with.

**SCHEDULE 1**  
**Guidelines for Annual Donations**

<b>Type of assistance</b>	<b>Amount</b>
Public liability insurance	(i) reimbursement of 100% of the premium up to \$1,000 pa; and (ii) reimbursement of 50% of the premium exceeding \$1,000 up to a maximum grant of \$2,000 pa
Property rates and charges	as per Notice of Assessment
Schools and sporting related donations	(i) for school prizes, \$100 per school per annum (ii) for sporting achievements: (A) \$100 for regional selection; (B) \$300 for state selection; and (C) \$500 for national selection
Community Events/Cultural Activities	Not exceeding \$2,000 except with the approval of Council

**SCHEDULE 2**  
**Guidelines for One-off Financial Assistance**

<b>Type of assistance</b>	<b>Amount</b>
Financial Assistance for community facilities	Up to \$3,000
Special projects enhancing a community facility (see paragraph 6 of the Community Financial Assistance Policy)	Up to \$10,000
Development Applications	The total amount development application costs levied on works to be undertaken on Council-owned facilities



<b>Adopted:</b>	<b>Date: 15/06/2015</b>	<b>Minute: 1506/010</b>
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	<b>Date: 16/07/2018</b>	
<b>Next Review:</b>	<b>Date: 19/04/2021</b>	





## Enforcement Policy

<b>Policy</b>	19Q
<b>Officer Responsible</b>	Director Planning & Environmental Services
<b>Review Date</b>	16/07/2018

## **Strategic Policy**

### **Objectives**

The objective of this policy is to establish clear guidelines for the exercise of discretion in dealing with proactive regulatory action by the Council and customer service requests or complaints about unlawful activity.

It provides workable guidelines on:

- (1) How to assess whether complaints of unlawful activity require investigation;
- (2) Options for dealing with unlawful activity;
- (3) How to decide whether enforcement action is warranted.

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## **Policy**

### **1. PREFACE**

Blayney Shire Council is involved in a broad range of regulatory activities. In recognition of the increase in the regulatory role of all Councils, the NSW Ombudsman in June 2002 published "Enforcement Guidelines for Councils" including a Model Enforcement Policy. That model Enforcement Policy forms the basis of this Blayney Shire Council Policy.

The Enforcement Policy reflects the need for a transparent decision making process of Council authorised officers to be carried out in an efficient, fair and consistent manner having regard to all the circumstances. The inclusion of Appendices A and B at the rear of the policy can be interpreted as a guide to indicate the relative level of seriousness of some offences and therefore, from a consistency viewpoint, to determine whether or not the Council may issue a warning prior to some level of formal action.

### **2. PURPOSE**

The purpose of this policy is to:

- Enable the Council to acknowledge its obligation under Section 8 of the Local Government Act 1993 to ensure that the regulatory powers are carried out in a consistent manner and without bias, and
- Provide a proactive policy statement regarding the enforcement of compliance with legislation and/or condition/s of development consent, and
- Foster prompt, consistent and effective action by the Council in response to allegations of unlawful activity whilst ensuring that the principles of natural justice are respected.

### **3. ENFORCEMENT PRINCIPLES**

Blayney Shire Council is committed to: -

- (1) Acting in the interest of protecting community health / safety and or the environment;
- (2) Acting consistently, fairly and impartially;
- (3) Preventing discrimination on the basis of race, religion, sex, national origin, political association or other personal reason/s;
- (4) Ensuring the proposed enforcement action is in keeping with the relative severity of the offence/s;
- (5) Ensuring enforcement action is taken against the right person for the correct offence;
- (6) Ensuring that any actual or potential conflict of interest situations are managed in a fair, consistent and impartial manner;

- (7) Disclosing all evidence relevant to the alleged offence/s;
- (8) Assisting the Court by providing all necessary information whether or not that information is in favour of the Council case;
- (9) Issuing cautions to the alleged offender/s, where necessary;
- (10) Making cost effective decisions concerning enforcement action having regard to the likely outcome at court;
- (11) Ensuring action is instigated within the specified time limits.

#### **4. APPLICATION**

This policy applies to the investigation and enforcement of complaints about unlawful activity or failure to comply with the terms or conditions of approvals and orders. While primarily directed at the regulation of development activity, the policy is also applicable to pollution control, regulation of parking, control over animals, unauthorised development including buildings, non-compliance with development consent conditions, food safety, public health and safety issues, tree/s removal and land clearing.

#### **5. RESPONSIBILITY**

All Council staff who deal with the proactive enforcement of relevant legislation in addition to written and verbal action requests or complaints alleging unlawful activity are responsible for implementing these policy guidelines. All notifications of alleged unlawful activity should be appropriately recorded by the Council Staff or Council.

#### **6. DEFINITIONS**

“Unlawful activity” is any activity or work that has been or is being carried out:

- (1) Contrary to the terms or conditions of development consent, approval, permission or other written authorisation from the Council;
- (2) Contrary to an environmental planning instrument that regulates the activities or work that can be carried out on particular land;
- (3) Contrary to a legislative provision regulating a particular activity or work;
- (4) Without a required development consent, approval, permission or the like;
- (5) Contrary to New South Wales legislation for which the Council is the appropriate regulatory authority.

## **7. INVESTIGATING UNLAWFUL ACTIVITIES**

All complaints and matters regarding unlawful activities will be reviewed to determine whether the matter requires enquiry or investigation. Further enquiries/investigation will not be initiated where:

- (1) The matter has already been investigated and resolved, or
- (2) The Council has no jurisdiction (for example, NSW WorkCover issues on building sites or amusement devices or an internal matter within strata buildings or where the Department of Environment and Conservation is the Appropriate Regulatory Authority etc), or
- (3) The activity is determined to be lawful without an investigation. In considering whether a complaint will warrant enquiry or investigation the Council will consider a range of factors. These include:
  - (a) Is the matter within the jurisdiction of the Council?
  - (b) Is the complaint premature e.g. does it relate to some unfinished aspect of work that is still in progress?
  - (c) Is the activity or work permissible with or without consent?
  - (d) If the activity is permissible with consent, is there a consent in place?
  - (e) Is it possible to determine from the information available to the Council whether the activity or work is permissible without consent and/or whether all conditions of consent are being complied with?
  - (f) Is the complaint trivial, frivolous or vexatious?
  - (g) Has too much time elapsed since the events the subject of the complaint took place?
  - (h) Is there another body that is a more appropriate agency to investigate and deal with the matter?
  - (i) Is the activity having a significant detrimental effect on the environment, or does it constitute a risk to public safety?
  - (j) Does the complaint indicate the existence of a systemic problem e.g. if the complaint is one of a series; could there be a pattern of conduct or a more widespread problem?
  - (k) Is there a history of related complaints against this person or organisation?
  - (l) Does the complaint have special significance in terms of the priorities of the Council?
  - (m) Are there significant resource implications in relation to an investigation and any subsequent enforcement action?
  - (n) Is it in the public interest to investigate the complaint?
  - (o) The effective use of resources having regard to the circumstances of the case.

If a decision is made not to investigate a complaint, this decision must be recorded with the reasons for that decision and the complainant so advised.



## **8. RESPONDING TO COMPLAINTS**

Every effort will be made to ensure that all Customer Service Requests or complaints about alleged unlawful activity are actioned within the 'service standard' time allowed for resolving the complaints within the following time frames:

- (1) Urgent and life threatening matters should be actioned as soon as possible following receipt of the complaint. Examples include unsafe building works, dangerous awnings, collapsed building/wall, serious pollution, food safety issues and public health and safety matters, etc. As a guide these matters should be dealt with on the day of the receipt of a complaint.
- (2) General compliance matters will be dealt with on a priority basis having regard to the relative seriousness of the matter. These examples include works not in accordance with consent or construction without consent, illegal use, noise and food complaints.
- (3) Nuisance matters should be actioned within seven working days; examples include domestic noise matters, minor non-compliance such as overgrown land or other matters in which there are no likely immediate health or safety implications

**Note that response times may vary depending on staff and other resources. However the Council will acknowledge the complaint and keep the complainant informed in accordance with the service standards of the Council.**

## **9. CONFIDENTIALITY OF COMPLAINANTS**

The Council will respect the privacy and confidentiality of information received. However due to its statutory obligations and other requirements, confidentiality cannot always be guaranteed. In cases where the release of information is considered to be necessary the person who made the complaint will be consulted before such a decision is made. The complainant's identity may be disclosed where:

- the person consents in writing to the disclosure of that information; or
- the principles of natural justice dictate that information be disclosed to the person who is the subject of the complaint, which may enable the complainant to be identified; or
- the Council is of the opinion that disclosure of the identifying information is necessary to investigate the matter effectively.

## **10. OPTIONS FOR DEALING WITH CONFIRMED CASES OF UNLAWFUL ACTIVITIES**

The Council will try to use the swiftest and most informal option to deal with unlawful activity wherever possible unless there is little likelihood of compliance with such options.

Approaches to be considered will include:

- (1) Referring the complaint to an external agency for further investigation or prosecution.
- (2) Taking no action on the basis of a lack of evidence or for some other appropriate reason.
- (3) Counselling the subject of the investigation to educate them on the relevant Council requirements.
- (4) Negotiating with the subject of the investigation and obtaining some undertakings to address the issues of concern arising from the investigation e.g. an application for modification of development consent.
- (5) Referring the parties for mediation with the Community Justice Centre or alternatively for private mediation.
- (6) Issuing a letter requiring work to be done or activity to cease in lieu of more formal action.
- (7) Issuing a notice of intention to serve an order or notice under relevant legislation, followed by service of an appropriate order or notice (Local Government Act (LG Act) Sect. 124-128, Environmental Planning & Assessment Act (EP&A Act) Sect. 121B, and the Protection of the Environment Operations Act (POEO Act) Pts 4.2-4.4 and 8.6).
- (8) Issuing a notice requiring work to be done under various and other relevant legislation.
- (9) Starting proceedings in the Land & Environment Court for an order to remedy or restrain a breach of the relevant Act or Regulation (Sect.673 LG Act; Sect.123 EP&A Act).
- (10) Seeking injunctions from the Land & Environment Court or the Supreme Court.
- (11) Issuing a Court Attendance Notice in the local court.
- (12) Issuing a penalty infringement notice.
- (13) Taking proceedings for an offence against the relevant Act or Regulation (s. 691 LG Act, Sect.125 EP&A Act, Chapter 5 POEO Act).
- (14) Carrying out the works specified in an order under the LG Act at the cost of the person served with the order (Sect.678 LG Act).

All enforcement action will be monitored and a decision made in relation to noncompliance within 2 weeks (14 days) of any deadline imposed.

## **11. TAKING ENFORCEMENT ACTION**

From an operational perspective the Council has a range of enforcement options including, but not limited to the following:

- (1) The issuing of a verbal warning;
- (2) The issuing of a written warning;
- (3) The issuing of a “show cause” letter;
- (4) The service of a Notice of Intention to issue an Order;
- (5) The service of written or oral Notices/ Orders/ Directions;
- (6) The issuing of a penalty infringement notice/s;
- (7) The recommendation to instigate legal action;
- (8) The waiving of certain fees and the granting of an extension of time for compliance;
- (9) The revocation of an approval;
- (10) The removal/ impounding of goods or items;
- (11) The refusal of an application.

When deciding whether to take enforcement action, the Council will consider the circumstances of the case. These include:

- (1) Has the Council created an estoppel\* situation? \* A bar preventing one from making an allegation or a denial that contradicts what one has previously stated as the truth.
- (2) Is the breach a technical breach only?
- (3) When was the unlawful activity carried out and for how long?
- (4) How has the unlawful activity affected the natural or built environment and the health, safety and amenity of the area?
- (5) Would consent have been given if it had been sought?
- (6) Can the breach be easily remedied?
- (7) Does the person in breach show contrition?
- (8) Are there any particular circumstances of hardship affecting the complainant or the person the subject of the complaint?
- (9) Has the person the subject of the complaint received a previous warning or other non-coercive approach or has formal legal action been taken?
- (10) Would an educative approach be more appropriate than a coercive approach?
- (11) What are the costs and benefits of taking formal enforcement action as opposed to taking informal or no action?
- (12) Is there sufficient evidence to establish a prima facie case? Is there some doubt over the evidence or offence/s?
- (13) Has Council staff acted appropriately in investigating the matter and were standard procedures followed including officers having appropriate authorisation and delegation?
- (14) What are the chances of success if the proposed enforcement action was challenged in court?
- (15) Is there a draft planning instrument on exhibition that would make the unauthorised use legal?
- (16) What action would be reasonable and proportionate in this case?

- (17) Is it in the public interest including there being a reasonable prospect of success?
- (18) Has the alleged offender been given an opportunity, if appropriate, to provide information as to why enforcement action should not be instituted?
- (19) Has the alleged offender been advised, if appropriate, that no response to a show cause letter will result in the commencement of enforcement action?
- (20) What is the likely length and net expense of the legal action?

\* A legal rule that prevents somebody from stating a position inconsistent with one previously stated, especially when the earlier representation has been relied upon by others.

The Council will ensure that the principles of natural justice are adhered to prior to a decision being made. The following principles will be addressed and implemented by the Council:

- Whoever is the subject of concern must know all the allegations in relation to their action;
- All parties to the complaint must have the right to be heard;
- All relevant submissions and evidence must be considered;
- Matters which are not relevant must not be taken into account;
- The person who makes the complaint must not determine the matter;
- The decision-maker must be fair and just.

## **12. DELEGATIONS FOR ENFORCEMENT ACTION**

Delegations conferred on staff to initiate various levels of enforcement action are set out in the relevant Council Officer delegations, all officers having appropriate delegations are authorised to undertake appropriate enforcement action. The legislation applicable to the delegations is as follows:

- (1) The Australian Road Rules
- (2) Roads Act 1993
- (3) Impounding Act 1993
- (4) Companion Animals Act 1998
- (5) Food Act 2003
- (6) Public Health Act 2010
- (7) Swimming Pools Act 1992
- (8) ~~Noxious Weeds Act 1993~~ Biosecurity Act 2015
- (9) Rural Fires Act 1997
- (10) Contaminated Land Management Act 1997
- (11) Environmental Planning and Assessment Act 1979
- (12) Local Government Act 1993
- (13) Protection of the Environment Operations Act 1997 and the various Regulations made there under.

**It should be noted that for all offences requiring the instigation of legal proceedings at the level of or above that of district court jurisdiction, the matter shall be reported to Council, for action.**

**All Land and Environment Court legal proceedings are required to be presented to Council for action.**

## **APPENDIX A**

**The following offences may result in a prior warning (verbal or written) being given to the offender(s) before any enforcement action in the form of the service of an order or notice or penalty infringement notice or court action is undertaken.**

- Annual Fire Safety Statement- non submission by owner
- Advertising signs without approval or unsightly
- Air pollution – smoky chimney
- Barking / Roaming dog, unregistered dog
- Development / Activity without consent or not in accordance with a condition/s of consent
- Minor development or old unauthorised development
- Minor breach of consent condition/s
- Erosion & sediment control matters (owner/builder – Sediments Fences and similar offences, minor environmental offences)
- Fire hazard of a less serious nature.
- Food safety/hygiene matters of a less serious nature
- Obstruction of Public Place / Road – (minor matters)
- Residential swimming pool issue not serious (e.g. resuscitation chart not provided)
- Revocation of an approval (e.g. footpath dining).

### Noise pollution

- Air conditioner\*
- Intruder alarm\*
- Musical instrument and sound equipment\*
- Power tools\*
- Motor vehicle on residential premises\*
- Use of refrigeration equipment fitted to motor vehicle\*
- Non compliance with an Order/Notice/Direction- work partly done or other mitigating circumstances
- \* Mandatory warning required by legislation

**Note that the above list of offences is an indication only and any offences not listed will be considered on their individual merits.**

## **APPENDIX B**

**The following offences may result in NO prior warning being given to the offender(s) before any enforcement action in the form of the service of an order or notice or penalty infringement notice or court action is undertaken**

- Dangerous Dog Order / Attacking Dog/ Restricted Dog
- Dangerous building/ awning
- Dangerous waterhole
- Deposit litter from vehicle
- Development not in accordance with consent / risk to health & safety/bush fire protection/ notice of Intention issued by PCA
- Deposit litter / Dumped Rubbish
- Development without consent – unsatisfactory explanation / no explanation repeat offender / prohibited development / risk to health & safety or environment
- Dilapidated building
- Environmental damage of a significant nature
- Erosion & sediment control matters
- Fire hazard threatening an asset
- Food safety matters of a serious nature
- Failure to pay Clean Up / Prevention Notice fee
- Failure to comply with order / notice / cease use of premises / failure to comply with order regarding development consent / demolish remove unlawful building / threatening life / public safety / environment / amenity protection/ fence land / keeping of birds and animals/ remove object from public place/ contravene noise control notice/ noise pollution
- Land clearing of a significant nature
- Littering
- Noise abatement direction
- Noise pollution generally after prescribed mandatory warning
- Not comply with condition of development consent/approval to operate
- Nuisance Dog Order
- Obstruction of road / public place involving safety
- Obstruction / intimidation/ assault of a Council officer
- Open burning without approval or not in accordance with an approval or cause excessive smoke
- Pollute Waters
- Parking offences
- Pollution Incident – Failure to notify
- Remove and /or damage tree/s
- Swimming Pool fencing / gates / open
- Street Trading without consent / approval

**Note that the above list of offences is an indication only and any offences not listed will be considered on their individual merits.**

End of Policy

### Table of Amendments

<b>Meeting Date</b>	<b>Minute Number</b>
16 November 2009	0911/006

	<b>Date</b>	<b>Minute</b>
<b>Adopted:</b>	<b>16/11/2009</b>	<b>0911/006</b>
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	<b>16/07/2018</b>	
<b>Next Review:</b>	<b>19/04/2021</b>	





## Street Tree Policy

<b>Policy</b>	25L
<b>Officer Responsible</b>	Director Infrastructure Services
<b>Last Review Date</b>	16/07/2018

**Strategic Policy**

## **OBJECTIVES**

To provide guidelines that assist Council and Council staff to comply with the *Best Practice Manual – Trees and Tree Roots* developed by Statewide Mutual.

To establish a framework and guidelines that assist in the development of a tree management program and enhance the aesthetics, the public amenity and safety of trees in public open space, and minimise the exposure to public liability.

To provide a systematic procedure for the determination of appropriate tree species for specific planting locations on Council owned and maintained lands.

## **GUIDELINES**

Reference will made to the Blayney Shire Council document, “Guidelines for Street and Open Space Tree Management” (the guidelines), when undertaking the assessment of street and open space trees.

## **GENERAL**

### **Tree Selection**

When planting trees, the species and proposed location shall be considered in relation to existing services and structures, to ensure that Council’s exposure to public liability claims in streets, parks and reserves under Council’s control is minimised.

Council staff shall initially assess each site and refer to the preferred species list provided in the guidelines.

It is recognised that the species list will evolve over time, due to the dynamic nature of the horticulture industry, and the development of new cultivars and hybrids.

Trees located in an established “avenue” will be replaced with the same species where possible.

### **Tree Planting**

Blayney Shire Council shall endeavour to plant a street tree outside each property zoned residential or rural residential within the Blayney Shire Council Local Government Area (LGA). When considering plantings council shall ensure minimal conflict with car parking spaces, driveway access points and potential traffic / pedestrian conflicts.

The planting of any tree or other plant by any person on public open space is prohibited without the written approval of Council.

## **Tree Maintenance**

Council will maintain existing trees in a sound and healthy condition and where necessary, undertake pruning or removal of the tree to minimise public liability exposure in streets, parks or reserves resulting from Council trees.

The Street Tree Policy establishes a framework and guidelines to assist in developing tree management programs that will enable the creation of an ideal streetscape environment by enhancing the aesthetics, public amenity and safety of trees in public open space and minimise Council's exposure to public liability. The Policy formalises current street tree management practices.

### **1. Inspection Program**

Council staff shall inspect all trees planted within road shoulders, nature strips and developed open space on tri-annual basis. Reference will be made to the Blayney Shire Council document, "Street and Open Space Tree Management Guidelines" (the guidelines), when undertaking the inspection of road shoulders, nature strips and developed open space trees.

No inspection regime has been developed for naturally self-sown trees located within road shoulders and public recreation areas.

### **2. Evaluation Procedure**

Blayney Shire Council shall evaluate the findings of the Inspection Program by using the analysis tools set out in the Statewide Mutual, *Best Practice Manual – Trees and Tree Roots*. Adoption of this technique will be the responsibility of Council's Supervisor Parks and Recreation Supervisor.

### **3. Control Regime Philosophy**

Blayney Shire Council shall endeavour to follow the order for risk control as follows: -

- Eliminate the risk
- Reduce the risk
- Accept the risk

This task shall be undertaken and managed by the Supervisor Parks and Recreation Supervisor.

### **4. Implementation**

Blayney Shire Council shall implement the policy in accordance with the guidelines.

### **5. Resourcing**

Funding and physical resources shall be considered each year as part of Council's Management Plan Operational Plan.

Identification of resources and incorporation into the Draft Management Plan Operational Plan will be the responsibility of Council's Supervisor Parks and Recreation Supervisor and Director of Engineering Infrastructure Services.

## 6. Performance

Council's Management Plan Operational Plan will incorporate annual performance targets based upon the inspection program. These targets will be reported as part of the Quarterly Business Report (QBR) six monthly Delivery Program progress report and annually as part of Council's Annual Report.

End of Policy

	Date	Minute
<b>Adopted:</b>	<b>08/08/2011</b>	<b>1108/015</b>
<b>Last Reviewed:</b>	<b>08/08/2011</b>	<b>1108/015</b>
	<b>16/07/2018</b>	<b>1211/014</b>
<b>Next Review:</b>	<b>19/04/2021</b>	



## Fitness Instructors and Group Trainers

<b>Policy</b>	25M
<b>Officer Responsible</b>	Director Corporate Services
<b>Last Review Date</b>	16/07/2018

### Strategic Policy

## **1. POLICY OBJECTIVE**

To provide a framework for the effective management of the commercial use of Blayney Shire Council's Parks and other Public Open Spaces, for personal and group fitness training activities, and to minimise the disturbance of the general public's use of these facilities.

## **2. DEFINITIONS**

<b><i>Hazard–</i></b>	Anything with potential to harm health, life or property.
<b><i>Risk–</i></b>	The probability that a hazard will cause injury or damage.
<b><i>Parks &amp; Public Open Spaces–</i></b>	Those parks, public open space areas, and recreational spaces, as identified in this policy for approved use within the Blayney Shire Local Government Area.

## **3. BRIEF**

Blayney Shire Council recognises the significant contribution the Fitness Industry has made in Australia and has observed the substantial growth over the past two decades. It is therefore, important that Blayney Shire Council acknowledges such growth and meet the demands of private enterprise, council residents and park users.

The management of the use of community land within the Blayney Shire Council Local Government area is regulated by the Local Government Act 1993 and Crown Lands Act 1989, and is subject to Council's plans of management. This policy will address the various issues raised due to the increasing numbers of personal trainers using Parks and Public Open Spaces.

## **4. PURPOSE**

To provide effective management of the use of Blayney Shire Council's Parks and Public Open Spaces, by group fitness instructors and personal trainers.

Council aims to:

- Encourage supervised physical activity
- Enhance public health outcomes
- Minimise damage to the local environment
- Minimise impact on Council assets
- Minimise the impact on surrounding residents
- Address public Risk concerns
- Ensure equity of access to all Parks and Public Open Spaces

## **5. PERMITTED AREAS**

Table 1 below provides a list of Parks and Public Open Spaces within which Group Fitness Instructors or Personal Trainers are approved to operate:

**Table 1. Parks and Public Open Spaces approved for use by Group Fitness Instructors or Personal Trainers**

Locality	Description	Lot	DP
<b>Blayney</b>	Carrington Park	2	1038633
	Heritage Park adventure playground and wetlands	320 701	750380 1023215
	Napier Oval and Hobbys Yards Road open parklands	53	237649
	Dakers Oval	1 2 3 4 5 7001	758121     1023253
	Medway/Mount Errol Street parklands	107 134	253126 253126
	Orange Road open parkland "Frog Hollow"	18 43 1 1	244853 240960 791883 241681
<b>Carcoar</b>	Carcoar Oval and parklands	7002	1023332
	Belubula River parklands	3 1	758225 1090769
<b>Lyndhurst</b>	Capital Park	1	999523
	Lyndhurst Recreation Ground	7302	1148005
<b>Mandurama</b>	Mandurama Memorial Sporting Grounds	1	1088270
		2	
		3	
		4	1088272
		9	
		10	
		11	
		12	
		13	
		14	
		15	
		16	
		5	1088273
<b>Millthorpe</b>	Redmond Oval	235	750384
<b>Neville</b>	Neville Memorial Park	1	402145
<b>Newbridge</b>	Newbridge Recreation Ground	1	154867

The number of permits issued per location will be limited to manage congestion.

## 6. EXCLUSION ZONES

Organised or commercial group fitness and personal training activities are not permitted within or on the following areas:

- King George Oval
- Carcoar Dam
- Cemeteries
- Car parks
- Public roads

- Footpaths
- Park furniture including picnic tables, shelters, seats and benches
- Playgrounds
- Bushland areas
- Within ten metres of memorials, memorial seats and playground equipment
- Within twenty metres of residential dwellings
- Within twenty metres of all sporting activities
- Sporting fields allocated to sporting clubs during their allocated use

Council may nominate other areas during the life of this policy as it sees fit.

## **7. APPLICATION TO USE COUNCIL PARKS AND PUBLIC OPEN SPACES**

A request to use Council Parks and Public Open Spaces for personal or group fitness training must be made on the prescribed form.

Approvals will be valid for up to one year (with dates clearly specified in the application), authorising each hirer to undertake fitness activities in accordance with this policy.

Applications will be assessed, taking into consideration the following factors:

- Type of activities to be undertaken and the potential impact on other users and neighbouring residents during the times requested
- Whether the number of clients will impact on the area requested
- Whether the activities will contribute to increasing congestion or user conflict in the areas requested
- Whether the proposed site is within an exclusion zone

## **8. ELIGIBILITY**

All applicants must:

- hold a minimum Certificate IV in Fitness (or approved equivalent)
- be registered with Fitness Australia (or similar body).
- hold a current Senior First Aid Certificate
- maintain Public Liability Insurance which nominates Blayney Shire Council as an interested party, to a minimum of \$20 million

Failure to provide one or more copies of the above documents will result in non-approval by Council.

## **9. PERMISSABLE FITNESS ACTIVITIES**

- Boxing and padded training (non-contact)
- Organised aerobic training
- Yoga, Tai Chi, Pilates type activities
- Meditation (or like activities)
- Circuit training
- Walking and running
- Or any other pre-approved fitness activity

## **10.**



### **PROHIBITED FITNESS ACTIVITIES**

- Portable training equipment – rowing machine, cross trainer, bench press etc.
- Training with companion animals, on or off leash
- Use of heavy items – tyres etc. being dragged in any form
- Suspension of boxing, kickboxing bags or other training apparatus from trees and/or structures in Parks and Public Open Spaces
- Utilising trees, seating, picnic table, rotundas and other park infrastructure for exercise training.
- Intimidating, violent or aggressive activities such as boot camp style training
- Create any noise from training activities that unreasonably disturbs other users and/or surrounding residents

### **11. FEES**

Fees (Inc GST) are set out in Council's Annual Fees and Charges available on Council's website [www.blayney.nsw.gov.au](http://www.blayney.nsw.gov.au)

### **12. PARKING AVAILABILITY**

Group Fitness Instructors, Personal Trainers and attendees are to park in designated parking spaces located in Council space (including on public roads in accordance with the NSW Road Rules).

Permit holders are solely responsible for ensuring that all group session participants park in designated spaces.

Parking on grassed open space is not permitted and is a breach of Section 632(1), 650, 651 of the *Local Government Act 1993* & *NSW Road Rules*.

A breach of such laws may result in fines.

### **13. ACCESS TO PUBLIC TOILETS**

Access to public toilets (where available) may be made available for use by Group Fitness Instructors, Personal Trainers and their clients.

Where public conveniences are locked outside of ordinary Council business hours, a key may be made available by separate application and upon payment of the prescribed key deposit.

Council will clean and maintain public toilets that are ordinarily open for use by the general public, outside the hiring period.

Group Fitness Instructors, Personal Trainers and their clients, must leave the toilet facilities clean and tidy.

### **14. WET WEATHER**

Council utilises a system of visual assessment of turf surfaces during periods of wet weather to assess their usability. An unusable surface is one that has been saturated to a point where any further rainfall will pond water on any portion of its surface making even pedestrian traffic a damaging action.

A point will be reached for each Park and Public Open Space beyond which it may be expected that usage of the facility will result in damage to the turf surface. Upon that point being reached, use of the Park and Open Public Space, will be suspended

until such time as it is considered safe to resume use without subsequent use causing damage to the surface.

### **15. STORAGE**

All permitted equipment is not to be stored on site at any Council premises.

### **16. ANTI-SOCIAL BEHAVIOUR**

The permit holder is responsible for the conduct of clients and will ensure that neither they nor others engage in anti-social behaviour. Failure to do so will result either in a written warning or their approval terminated immediately if an unlawful act has been committed.

Should a permit be terminated prior to the end of the approval period, fees will not be refunded either in part or full.

### **17. REPORTING**

Should there be an accident or injury arising through the Hirer's use, the Hirer must inform Council in writing within seven (7) days of the incident.

The Hirer must notify Council immediately upon becoming aware of any broken facilities or dangerous conditions of the Park and Public Open Space.

### **18. TERMINATION**

Council reserves the right to revoke the permit if in its opinion it has determined that the trainer has breached the conditions of the permit or terms set out in this Policy.

### **19. GENERAL CONDITIONS**

- Instructors must be licensed Trainers and be registered with Fitness Australia (or similar body). A copy of the certificate of registration must be provided to Council.
- Instructors must have a current Senior First Aid Certificate and provide Council with a copy.
- Instructors must not at any time interfere with permanent/ and or casual users of the Parks and Public Open Spaces.
- The Licensed Instructor shall indemnify and hold harmless the Council from and against all damages, sums of money, costs, charges, expenses, actions, claims and demands which may be sustained or suffered or recovered or made against Blayney Shire Council by any person for any loss of life or injury or damage any person may sustain due to the negligent act of the Instructor whilst conducting a training session.
- The Instructor shall provide Council with a copy of their public liability cover, nominates Blayney Shire Council as an interested party and should be in the sum of \$20,000,000.
- The Instructor must keep and maintain a logbook of accidents or injuries and forward a copy to Council for their records.
- A flag shall be erected in recognition of the area the training will be taking place.
- The Instructor shall be responsible for all occupational health and safety legislation, regulations and requirements pertaining to the running of their business.
- The Instructor shall not exceed 18 persons per squad when conducting training in a Park and Public Open Spaces.

- An Instructor shall not conduct aggressive and intimidating activities such as boot camp style training. That is any activity that is deemed to be aggressive or intimidating in nature whether real or perceived by participants or the general public
- No amplified music or amplified audio (voice) equipment is permitted.
- The Instructor must not use picnic tables and street furniture as training aids and not cause excessive wear and tear to turf areas, natural areas and bushland.
- The Instructor shall not suspend boxing, kickboxing bags or other fitness apparatus from trees and/or structures in the public open space.
- The instructor shall conduct their activities so not to dominate, monopolise and/or obstruct stairways or pathways
- The instructor must ensure that any training group, for which they are responsible, runs in a single file when running in narrow areas or pathways.
- The Instructor is not permitted to display any advertising signage including banners or "A" Frame signs on Council's Parks and Public Open Space.
- A point will be reached for each Park and Public Open Space beyond which it may be expected that usage of the facility will result in damage to the turf surface. Upon that point being reached, use of the field will be suspended until such time as it is considered safe to resume use without subsequent use causing damage to the surface.
- The instructor is responsible for ensuring the area chosen to undertake training is safe for purpose. Council gives no warranties as to the suitability of any particular site for use as a personal training area. Any Hazards requiring repair noted by the instructor should be reported to Council.

## End of Policy

<b>Adopted:</b>	<b>15/02/2016</b>	<b>&lt;Minute&gt;</b>
<b>Lastest Reviewed:</b>	<b>15/02/2016</b>	<b>1602/016</b>
	<b>16/07/2018</b>	
<b>Next Review:</b>	<b>19/04/2021</b>	





## Liquid Trade Waste

<b>Policy</b>	27B
<b>Officer Responsible</b>	Director Infrastructure Services
<b>Last Review Date</b>	16/07/2018

**Strategic Policy**

## **Objectives**

To protect public health

To protect the health and safety of Council employees

To protect the environment from the discharge of waste that may have a detrimental effect

To protect Council assets from damage

To assist Council to meet its statutory obligations

To provide an environmentally responsible liquid trade waste service to the non-residential sector

To encourage waste minimisation and cleaner production in the commercial and industrial sectors

To promote water conservation, water recycling and biosolids reuse

To ensure compliance of liquid trade waste dischargers with Council's approved conditions

To provide operational data on the volume and composition of industrial and commercial effluent to assist in the operation of the sewerage system and the design of augmentations or new sewerage systems

To ensure commercial provision of services and full cost recovery through appropriate sewerage and liquid trade waste fees and charge

## PURPOSE

This policy sets out how council will regulate sewerage and trade waste discharges to its sewerage system in accordance with the NSW Framework for Regulation of Sewerage and Trade Waste (Section 3.1). The policy is concerned with the approval, monitoring and enforcement process for liquid trade wastes discharged to Council's sewerage system and the levying of commercial sewerage and liquid trade waste fees and charges. It has been developed to ensure the proper control of liquid trade waste and hence protection of public health, worker safety, the environment, and Council's sewerage system. The policy also promotes waste minimisation, water conservation, water recycling and biosolids reuse.

Sewerage systems are generally designed to cater for waste from domestic sources that are essentially of predictable strength and quality. Council **may** accept trade waste into its sewerage system as a **service** to businesses and industry.

Liquid trade wastes may exert much greater demands on sewerage systems than domestic sewage and, if uncontrolled, can pose serious problems to public health, worker safety, Council's sewerage system and the environment.

Impacts of poor liquid trade waste regulation include:

- Grease, oil, solid material, if not removed on-site, can cause sewer chokes and blockages and the discharge of untreated sewage to the environment.
- Strong waste may cause sewage odour problems and corrosion of sewer mains, pumping stations and sewage treatment works.

A person wishing to discharge liquid trade waste to the sewerage system must, under section 68 of the *Local Government Act 1993*, obtain prior approval from Council. Discharging liquid trade waste without an approval is an offence under section 626 of the Act.

The procedure for approval is governed by Chapter 7 of the Local Government Act and is subject to the *Local Government (General) Regulation 2005*.

Under clause 28 of the Local Government (General) Regulation, a council must not grant an approval under section 68 of the Act to discharge trade waste (whether treated or not) into a sewer of the council unless the Director-General of the Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS) has concurred with the approval.

Under section 90 (2) of the Local Government Act, the Director-General, DTIRIS, may give the council notice that the concurrence may be assumed (with such qualifications or conditions as are specified in the notice).

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## GLOSSARY

**Assumed Concurrence:** Council may apply to the Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS) for authorisation to assume concurrence for Classification B or Classification S activities. If granted, Council will no longer need to forward such applications to DTIRIS for concurrence.

**Automatic Assumed Concurrence:** Councils have been authorised to assume DTIRIS concurrence for Classification A activities. Such applications may be approved by Council without forwarding the application to DTIRIS for concurrence.

**Bilge Water:** minor amounts of water collecting in the bilge of a vessel from spray, rain, seepage, spillage and boat movements. Bilge water may be contaminated with oil, grease, petroleum products and saltwater.

**Biochemical Oxygen Demand (BOD5):** The amount of oxygen utilised by micro-organisms in the process of decomposition of organic material in wastewater over a period of five days at 20°C. In practical terms, BOD is a measure of biodegradable organic content of the waste.

**Biosolids:** Primarily organic solid product produced by sewage processing. Until such solids are suitable for beneficial use, they are defined as wastewater solids or sewage sludge.

**Bunding:** Secondary containment provided for storage areas, particularly for materials with the propensity to cause environmental damage.

**Chemical Oxygen Demand (COD):** A measure of oxygen required to oxidise organic and inorganic matter in wastewater by a strong chemical oxidant. Wastewaters containing high levels of readily oxidised compounds have a high COD.

**Chemical Toilet:** Toilet in which wastes are deposited into a holding tank containing a deodorizing or other chemicals; wastes are stored and must be pumped out (and chemical recharged) periodically.

**Commercial Kitchen/Caterer:** For the purpose of these Guidelines, a commercial kitchen is a premises that is typically a stand-alone operation and prepares food for consumption off-site. These types of businesses typically cater to wedding functions, conferences, parties, etc. This definition would not apply to a food processing factory supplying pre-prepared meals to an airline company or similar.

**Contingency Plan:** A set of procedures for responding to an incident that will affect the quality of liquid trade waste discharged to the sewerage system. The plan also encompasses procedures to protect the environment from accidental and unauthorised discharges of liquid trade waste to the stormwater drainage system, and leaks and spillages from stored products and chemicals.

**Director-General:** Director-General means the Director-General of the Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS).

**Due Diligence Program:** A plan that identifies potential health and safety, environmental or other hazards (eg. spills, accidents or leaks) and appropriate corrective actions aimed at minimising or preventing the hazards.

Reference will be made to the Blayney Shire Council document, "Guidelines for Street and Open Space Tree Management" (the guidelines), when undertaking the assessment of street and open space trees.

**DTIRIS Concurrence** is required before a council may approve an application for the discharge of liquid trade waste (including septic tank and pan waste) to the sewerage system. It is a requirement under section 90(1) of the Local Government Act and clause 28 of the *Local Government (General) Regulation 2005* that council obtain the written concurrence of the Director-General of the Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS) prior to

approving such waste to be discharged to the council's sewerage system. Such concurrence requests to be provided to the NSW Office of Water (a separate office within DTIRIS).

**Effluent:** The liquid discharged following a wastewater treatment process.

**Effluent Improvement Plan (EIP):** The document required to be submitted by a discharger who is not meeting the acceptance limits for discharge waste quality set down in Council's approval conditions and/or liquid trade waste agreement. The document sets out how the discharger will meet the acceptance limits for the discharge of liquid trade waste to the sewerage system within the agreed timeframe.

**Galley Waste:** In this Policy, a liquid waste from a kitchen or a food preparation area of a vessel; solid wastes are excluded.

**Heavy Metals:** Metals of high atomic weight which in high concentrations can exert a toxic effect and may accumulate in the environment and the food chain. Examples include mercury, chromium, cadmium, arsenic, nickel, lead and zinc.

**Housekeeping:** is a general term, which covers all waste minimisation activities connected with the way in which operations within the premises are carried out.

**Industrial Discharges:** Industrial liquid trade waste is defined as liquid waste generated by industrial or manufacturing processes.

**Local Government Regulation:** *Local Government (General) Regulation 2005* under the *Local Government Act 1993*.

**Liquid Trade Waste:** Liquid trade waste means all liquid waste other than sewage of a domestic nature.

**Mandatory Concurrence:** For the liquid waste in Classification C, councils will need to obtain concurrence from DTIRIS for each discharger. Such concurrence requests to be provided to the NSW Office of Water (a separate office within DTIRIS).

**Methylene Blue Active Substances (MBAS):** These are anionic surfactants (see Surfactants definition) and are called MBAS as their presence and concentration is detected by measuring the colour change in a standard solution of methylene blue dye.

**Minimal Pre-treatment:** For the purpose of this Policy includes sink strainers, basket arrestors for sink and floor waste, plaster arrestors and fixed or removable screens.

**National Framework for Wastewater Source Management:** refer to section 3.2

**NSW Framework for Regulation of Sewerage and Trade Waste:** refer to section 3.1

**NSW Office of Water (NOW):** In accordance with the Public Sector Employment and Management (Departmental Amalgamations) Order 2009, the NSW Office of Water has been established as a separate office within the Department of Environment, Climate Change and Water from 27 July 2009.

**Open Area:** Any unroofed process, storage, washing or transport area potentially contaminated with rainwater and substances which may adversely affect the sewerage system or the environment.

**Pan:** For the purpose of this Policy "pan" means any moveable receptacle kept in a closet and used for the reception of human waste.

**pH:** A measure of acidity or alkalinity of an aqueous solution, expressed as the logarithm of the reciprocal of the hydrogen ion (H<sup>+</sup>) activity in moles per litre at a given temperature; pH 7 is neutral, below 7 is acidic and above 7 is alkaline.

**Premises:** Has the same meaning as defined in the Local Government Act Dictionary and includes any of the following:

- (a) a building of any description or any part of it and the appurtenances to it
- (b) land, whether built on or not
- (c) a shed or other structure
- (d) a tent
- (e) a swimming pool
- (f) a ship or vessel of any description (including a houseboat)
- (g) a van.

**Prescribed Pre-treatment Equipment** is defined as standard non-complex equipment used for pre-treatment of liquid trade waste, eg. a grease arrestor, an oil arrestor/separator, solids arrestor, cooling pit (refer to Table 7 of *Liquid Trade Waste Regulation Guidelines, 2009*).

**Primary Measurement Device:** A device such as a gauging pit, weir tank or flume installed in the liquid trade waste discharge line suitable for installation of instrumentation for flow measurement. In cases of commercial flows this can mean a removable section of pipe (in the fresh water supply to the trade waste area) and the installation of a check meter.

**Septage:** Material pumped out from a septic tank during desludging; contains partly decomposed scum, sludge and liquid.

**Septic Tank:** Wastewater treatment device that provides a preliminary form of treatment for wastewater, comprising sedimentation of settleable solids, flotation of oils and fats, and anaerobic digestion of sludge.

**Septic Tank Effluent:** The liquid discharged from a septic tank after treatment.

**Sewage Management Facility:** A human waste storage facility or a waste treatment device intended to process sewage and includes a drain connected to such a facility or device.

**Sewage of Domestic Nature:** Includes human faecal matter and urine and waste water associated with ordinary kitchen, laundry and ablution activities of a household, but does not include waste in or from a sewage management facility.

**Sewerage System:** The network of sewage collection, transportation, treatment and by-products (effluent and biosolids) management facilities.

**Ship-to-Shore Pump-out:** Liquid waste from a vessel that may be considered for disposal to the sewerage system. This includes on-board toilet wastes, galley wastes and dry dock cleaning waste from maintenance activities.

**Sullage:** Domestic wastewater excluding toilet waste.

**Surfactants:** The key active ingredient of detergents, soaps, emulsifiers, wetting agents and penetrants. Anionic surfactants react with a chemical called methylene blue to form a blue-chloroform-soluble complex; the intensity of colour is proportional to concentration.

**Suspended Solids (SS):** The insoluble solid matter suspended in wastewater that can be separated by laboratory filtration and is retained on a filter. Previously also referred to as non-filterable residue (NFR).

**Total Dissolved Solids (TDS):** The total amount of dissolved material in the water.

**Waste Minimisation:** Procedures and processes implemented by industry and business to modify, change, alter or substitute work practices and products that will result in a reduction in the volume and/or strength of waste discharged to sewer.

## WHAT IS LIQUID TRADE WASTE?

Liquid trade waste is defined in the *Local Government (General) Regulation 2005* as below:

*Liquid trade waste means all liquid waste other than sewage of a domestic nature.*

Liquid trade waste discharges to the sewerage system include liquid wastes from:

- business/commercial premises (eg. beautician, florist, hairdresser, hotel, motel, restaurant, butcher, service station, supermarket, dentist)
- community/public premises (including craft club, school, college, university, hospital and nursing home)
- industrial premises
- trade activities (eg. mobile carpet cleaner)
- any commercial activities carried out at a residential premises
- saleyards, racecourses and from stables and kennels that are not associated with domestic households
- septic tank waste, chemical toilet waste, waste from marine pump-out facilities and established sites for the discharge of pan content from mobile homes/caravans to the sewerage system.

While septic tank, pan and ship-to-shore pump-out waste are defined as trade waste, specific procedures need to be applied to their management as the waste is often transported from its source to the sewerage system. Accordingly, specific references to these wastes are provided in this policy where necessary.

Liquid trade waste excludes:

- toilet, hand wash basin\*, shower and bath wastes derived from all the premises and activities mentioned above
- wastewater from residential toilets, kitchens, bathrooms or laundries (ie. domestic sewage)
- common use (non-residential) kitchen and laundry facilities in a caravan park
- residential swimming pool backwash

\* Used for personal hygiene only

## OBJECTIVES

The objectives<sup>1</sup> of this policy are:

- to protect public health
- to protect the health and safety of Council employees
- to protect the environment from the discharge of waste that may have a detrimental effect
- to protect Council assets from damage
- to assist Council to meet its statutory obligations
- to provide an environmentally responsible liquid trade waste service to the non-residential sector
- to encourage waste minimisation and cleaner production in the commercial and industrial sectors
- to promote water conservation, water recycling and biosolids reuse
- to ensure compliance of liquid trade waste dischargers with Council's approved conditions
- to provide operational data on the volume and composition of industrial and commercial effluent to assist in the operation of the sewerage system and the design of augmentations or new sewerage systems
- to ensure commercial provision of services and full cost recovery through appropriate sewerage and liquid trade waste fees and charges.

## SCOPE OF THIS POLICY

This policy comprises three parts:

- Part 1 specifies the circumstances in which a person is exempt from the necessity to apply for an approval to discharge liquid trade waste to Council's sewerage system
- Part 2 specifies the criteria which Council will take into consideration in determining whether to give or refuse a liquid trade waste approval
- Part 3 specifies the framework for regulation of liquid trade waste, including the NSW Framework for Regulation of Sewerage and Trade Waste, alignment with the *National Framework for Wastewater Source Management*, application procedures, liquid trade waste discharge categories, liquid trade waste services agreements, monitoring of liquid trade waste discharges, liquid trade waste fees and charges, modification or revocation of approvals, prevention of waste of water and contaminated stormwater discharges from open areas.

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<sup>1</sup> The above objectives are consistent with the *National Framework for Wastewater Source Management* on page 22 of the *National Wastewater Source Management Guideline*, July 2008, Water Services Association of Australia (WSAA).

## 1. PART 1 – EXEMPTIONS

### Exemptions

For obtaining approval of liquid trade waste discharge.

**Table 1. Exemptions**

This table lists commercial business activities that the Director-General, DTIRIS has consented to an exemption from the requirement to apply for approval for liquid trade waste discharge to the sewerage system. Each such business must meet the standard requirements specified below. An annual trade waste fee applies to each such discharger	
Activity	Requirements
Beautician	Nil.
Bed and Breakfast (not more than 10 persons including proprietor)	Sink strainers in food preparation areas. Housekeeping practices (see Note 4).
Community hall (minimal hot food)	Sink strainers in food preparation areas. Housekeeping practices (see Note 4).
Day care centre (no hot food prepared)	Sink strainers in food preparation areas. Housekeeping practices (see Note 4). Nappies are not to be flushed into the toilet.
Dental technician (no X-ray)	Plaster arrestor required.
Doctor's surgery (plaster casts, no X-ray)	Plaster arrestor required.
Dog/cat groomer/salon	Floor waste basket and sink strainer required (see Note 3). Animal litter and any waste disposal products may not be discharged to sewer. No organophosphorus pesticides may be discharged to sewer.
Florist	Floor waste basket and sink strainer required. No herbicides/pesticides may be discharged to sewer.
Fruit and vegetable – retail	Floor waste basket and sink strainer required (see Note 3).
Funeral parlour	Floor waste basket required. Formaldehyde is not to be discharged to the sewer.
Hairdressing	Floor waste basket and sink strainer (where available)
Jewellery shop miniplate ultrasonic washing precious stone cutting	Miniplate vessel to contain no more than 1.5 L of precious metal solution Nil If : < 1000 L/d plaster arrestor required > 1000 L/d general purpose pit required
Mobile cleaning units carpet cleaning garbage bin washing	20 micron filtration system fitted to a mobile unit. Floor waste basket required. Discharge is via grease arrestor (if available).

Activity	Requirements
Motel (no hot food prepared and no laundry facility)	Floor waste basket and sink strainer required (see Note 3). Housekeeping practices (see Note 4).

Nut shop	Floor waste basket and sink strainer required (see Note 3).
Optical service - retail	Solids settlement tank/pit required.
Pet shop – retail	Floor waste basket and sink strainer required (see Note 2).
Pizza reheating for home delivery	Housekeeping practices (see Note 4).
Venetian blind cleaning	Nil (see Note 2).

**Notes:**

1. Where “required” is used it means as required by Council.
2. If activity is conducted outdoors, the work area is to be roofed and bunded to prevent stormwater ingress into the sewerage system.
3. All drainage from floors in food preparation areas is required to pass through a floor waste basket.
4. Food preparation activities need to comply with sound housekeeping practices including:
  - (a) Floor must be dry swept before washing.
  - (b) Pre-wiping of all utensils, plates, bowls etc. to the scrap bin before washing up.
  - (c) Use of a food waste disposal unit is not permitted.

## **2. PART 2– CRITERIA FOR APPROVAL TO DISCHARGE LIQUID TRADE WASTE INTO COUNCIL’S SEWERAGE SYSTEM**

### **2.1 Factors for consideration**

Council’s decision to accept liquid trade waste into its sewerage system is on the basis of a preventive risk management framework for managing risks to the sewerage system within an integrated water cycle management<sup>2</sup> context. It will be based on the discharge meeting Council’s requirements<sup>3</sup>. When determining an application to discharge liquid trade waste to the sewerage system, Council will consider the following factors:

- The potential for the liquid trade waste discharge to impact on public health
- The possible impacts the discharge may pose to the environment (land, water, air, noise, or nuisance factors)
- The potential impacts of the discharge on the health and safety of the Council’s employees
- The possible impact of the discharge on Council’s sewerage infrastructure or sewage treatment process
- The capability of the sewerage system (both transportation and treatment components) to accept the quality and quantity of the proposed liquid trade waste discharge
- The impact the liquid trade waste will have on the ability of the sewerage scheme to meet NSW Environmental Protection Authority (EPA) licence requirements
- Compliance of the proposed liquid trade waste discharge with guideline limits in this policy<sup>4</sup>
- The potential impacts of the discharge on the quality of, and management practices for, effluent and biosolids produced from the sewage treatment process
- The adequacy of the pre-treatment process(es) to treat the liquid trade waste to a level acceptable for discharge to the sewerage system, including proposed safeguards if the pre-treatment system fails
- Whether appropriate safeguards are proposed to avoid the discharge of other, non-approved wastes to the sewerage system
- Whether prohibited substances are proposed to be discharged
- The potential for stormwater entering the sewerage system and adequacy of proposed stormwater controls
- Waste minimisation and water conservation programs
- The adequacy of the proposed due diligence program and contingency plan, where required.
- The adequacy of any chemical storage and handling facilities, and the proposed safeguards for preventing the discharge of chemicals to the sewerage system

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<sup>2</sup> *Integrated Water Cycle Management Guidelines for NSW Local Water Utilities, DWE, October 2004.*

<sup>3</sup> In considering options for waste management to drive resource efficiency, the following order of preference set out on page 6 of the *National Wastewater Source Management Guidelines, July 2008, WSAA* will be adopted:

- Avoidance
- Minimisation
- Re-use
- Recovery of energy
- Treatment
- Disposal

<sup>4</sup> The quality of trade waste from some low risk commercial activities in Classification A will exceed guideline limits in Council’s trade waste policy. As a higher level of pre-treatment is not cost-effective, such waste is acceptable if the discharger installs and properly operates and maintains the required pre-treatment equipment (refer to Table 4 on page 181 and Tables 7 to 9 of *Liquid Trade Waste Regulation Guidelines, 2009*). Similarly, septic and pan waste may exceed some guideline limits.



## **2.2 Discharge quality**

Council has guideline limits for the acceptance of discharges, as set out in Table 2. Council may vary the guideline limits for a particular sewage treatment works. Where the guideline limits cannot be met, applicants are required to provide justification for exceeding the limits. Based on the type and the proposed contaminant levels, Council may refuse the application, or may approve it subject to an effluent improvement program, or other conditions being implemented.

## **2.3 Prohibited substances**

Some substances are not suitable for discharge to the sewerage system. Table 3 sets out those substances which must not be discharged to the sewerage system. Council may not grant approval for the discharge of these substances to the sewerage system unless it is specifically approved under section 68 of the Local Government Act.

## **2.4 Stormwater discharges from open areas**

Stormwater is a prohibited discharge under this policy. The ingress of stormwater into the sewerage system can cause operational problems to the system and result in sewer overflows, as the sewerage system does not have the capacity for such flows. Therefore, Council does not generally accept the discharge of stormwater to the sewerage system.

However, it is recognised that it may not always be possible or practical to prevent all stormwater entering the sewerage system at some liquid trade waste premises. The discharge of limited quantities of first flush stormwater from sealed areas will be considered where roofing cannot be provided because of safety or other important considerations. The discharge from unsealed areas is not permitted.

Before the stormwater will be considered for discharge to the sewerage system, the applicant must provide the following information:

- reasons why the area cannot be fully or partially roofed and bunded to exclude stormwater
- the dimensions and a plan of the open area under consideration
- whether the open area is sealed
- the estimated volume of the stormwater discharge
- information on rain gauging
- where a first-flush system is proposed, details on how the stormwater will be diverted to the drainage system after the first flush is accepted (the first flush to be limited to first 10 mm of storm run off)
- measures proposed for diverting stormwater away from the liquid trade waste generating area
- report on other stormwater management options considered and why they are not feasible.

**Note:** Trade waste charges for the acceptance of stormwater to the sewerage system are indicated in section 3.7.9.

## **2.5 Food waste disposal units**

The use of food waste disposal units (also known as in-sinkerators, in-sink food waste disposers, or garbage grinders) is not permitted. Existing installations in hospitals and nursing homes may be permitted, provided that wastewater is discharged through an adequately sized grease arrestor. For existing premises, a food waste disposal charge will be levied based on the number of beds in the hospital or nursing home (refer to section 3.7.6).

If the hospital or nursing home kitchen is refurbished, the food waste disposal unit must be removed.

## **2.6 Devices that macerate or pulverise waste**

Macerators and any other similar devices that are used for pulverising of solid waste are not authorised to connect to Council's sewerage system (Refer *NSW Code of Practice: Plumbing and Drainage, 2006*). Solid waste includes, but is not limited to, sanitary napkin, placenta, surgical waste, disposable nappy, mache bedpan and urine containers.

Therefore Council will not accept any discharges from such devices to its sewerage system.

## **2.7 Use of additives in pre-treatment systems**

Council does not allow solvents, enzymes, bioadditives, and odour control agents to be used in pre-treatment systems (except neutralising chemicals designated for the pre-treatment) except by specific written application and subsequent approval.

**Table 2. Guideline limits for acceptance of liquid trade wastes into sewerage system**

Parameter*	Limits**
<b>General acceptance guideline limits</b>	
Flow Rate	The maximum daily and instantaneous rate of discharge (kL/h or L/s) is set on the available capacity of the sewer. Large dischargers are required to provide a balancing tank to even out the load on the sewage treatment works.
BOD5 and Suspended Solids	Normally, approved at 300 mg/L each. Concentration up to 600mg/L and in some cases higher concentration for low mass loadings may be acceptable if the treatment works has sufficient capacity and odour will not be a problem.
COD	Normally, not to exceed BOD5 by more than three times. This ratio is given as a guide only to prevent the discharge of non-biodegradable waste.
Total Dissolved Solids	Up to 4000 mg/L may be accepted. However, the acceptance limit may be reduced depending on available effluent disposal options and will be subject to a mass load limit.
Temperature	Less than 38°C.
pH	Within the range 7.0 to 9.0.
Oil and Grease	100 mg/L if the volume of the discharge does not exceed 10% of the design capacity of the treatment works, and 50 mg/L if the volume is greater than 10%.
Detergents	All industrial detergents are to be biodegradable. A limit on the concentration of 50 mg/L (as MBAS) may be imposed on large liquid trade wastes.
Colour	No visible colour when the waste is diluted to the equivalent dilution afforded by domestic sewage flow.
Radioactive Substances	The discharge must comply with the <i>Radiation Control Act 1990</i> .

Cont.....

\* See Glossary for explanation of terms

\*\* Refer to *National Wastewater Source Management Guideline, July 2008*, WSAA for recommended analytical methods.

Parameter	Maximum concentration (mg/L)
<b>Acceptance guideline limits for inorganic compounds</b>	
Ammonia (as N)	50
Boron	5
Bromine	5
Chlorine	10
Cyanide	1
Fluoride	20
Nitrogen (total Kjeldahl)	100
Phosphorus (total)	20
Sulphate (as SO <sub>4</sub> )	500
Sulphide (as S)	1
Sulphite (as SO <sub>3</sub> )	15
<b>Acceptance guideline limits for organic compounds</b>	
Benzene	0.04
Toluene	0.5
Ethylbenzene	1
Xylene	1
Formaldehyde	30
Phenolic compounds (except pentachlorophenol)	5
Petroleum hydrocarbons (non flammable)*	30
Pesticides general (except organochlorine and organophosphorous)*	0.1
Polynuclear Aromatic Hydrocarbons (PAHs)	5

Cont.....

\* Refer to Table 3

Parameter	Maximum concentration (mg/L)	Allowed daily mass limit (g/d)
<b>Acceptance guideline limits for metals</b>		
Aluminium	100	-
Arsenic	1	2
Cadmium	1	6
Chromium*	3	15
Cobalt	5	15
Copper	5	15
Iron	100	-
Lead	1	6
Manganese	10	30
Mercury	0.01	0.05
Molybdenum	5	30
Nickel	3	15
Selenium	1	15
Silver	2**	6
Tin	5	15
Zinc	5	15
Total heavy metals excluding aluminium, iron and manganese.	Less than 30 mg/L and subject to total mass loading requirements	

\* Where hexavalent chromium (Cr6+) is present in the process water, pre-treatment will be required to reduce it to the trivalent state (Cr3+), prior to discharge into the sewer. Discharge of hexavalent chromium (Cr6+) from chromate compounds used as corrosion inhibitors in cooling towers is not permitted.

\*\* This limit is applicable to large dischargers. The concentration of silver in photoprocessing waste where a balancing tank is provided is not to exceed 5 mg/L.

**Table 3. Substance prohibited from being discharged into the sewerage system**

- organochlorine weedicides, fungicides, pesticides, herbicides and substances of a similar nature and/or wastes arising from the preparation of these substances
- organophosphorus pesticides and/or waste arising from the preparation of these substances
- any substances liable to produce noxious or poisonous vapours in the sewerage system
- organic solvents and mineral oil
- any flammable or explosive substance
- discharges from 'Bulk Fuel Depots'
- chromate from cooling towers
- natural or synthetic resins, plastic monomers, synthetic adhesives, rubber and plastic emulsions
- rain, surface, seepage or subsoil water, unless specifically permitted
- solid matter
- any substance assessed as not suitable to be discharged into the sewerage system
- waste that contains pollutants at concentrations which inhibit the sewage treatment process – refer *National Wastewater Source Management Guideline, July 2008*, WSAA
- any other substances listed in a relevant regulation.

### **3.**

## PART 3 – FRAMEWORK FOR REGULATION OF LIQUID TRADE WASTE

### 3.1 The NSW framework for regulation of sewerage and trade waste

Due to the *Tragedy of the Commons*<sup>5</sup> in the use of common pool resources, sound regulation of sewerage and trade waste requires implementation of **all** the following integrated measures.

1. Preparation and implementation of a sound trade waste regulation policy, assessment of each trade waste application and determination of appropriate conditions of approval. The conditions must be consistent with the LWU's *Integrated Water Cycle Management Strategy* and demand management plan. In addition, execution of a liquid trade waste services agreement is required for large dischargers to assure compliance.
2. Preparation and implementation of a sound *Development Servicing Plan*<sup>6</sup>, with commercial sewerage developer charges to ensure new development pays a fair share of the cost of the required infrastructure.
3. Full cost recovery with appropriate sewer usage charges<sup>7</sup> and trade waste fees and charges<sup>8</sup> in order to provide the necessary pricing signals to dischargers. These charges must include non-compliance trade waste usage charges and non-compliance excess mass charges in order to provide the necessary incentives for dischargers to consistently comply with their conditions of approval.
4. Monitoring, mentoring and coaching of dischargers in order to achieve cleaner production and assist them to comply with their conditions of approval.
5. Enforcement, including appropriate use of penalty notices under section 222 of the *Protection of the Environment Operations Act 1997*. Orders may also be issued and penalties imposed for offences under sections 626, 627 and 628 of the *Local Government Act 1993*.
6. Disconnection of a trade waste service in the event of persistent failure to comply with the LWU's conditions of approval.

Together, the above six measures comprise the NSW framework for regulation of sewerage and trade waste. The framework involves a preventive risk management approach, which has been developed to address the use of common pool resources by providing economic incentives for dischargers to minimise their waste and to consistently comply with their conditions of approval.

### 3.2 Alignment with the national framework for wastewater source management

The NSW framework for regulation of sewerage and trade waste is outlined in section 3.1. The NSW framework is driven by the NSW Government's *Best-Practice Management of Water Supply of Sewerage*

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<sup>5</sup> Refer to page 3 of *National Wastewater Source Management Guideline, July 2008*, WSAA. Thus, in the absence of appropriate controls and measures (such as conditions of approval, a sewer usage charge, a trade waste usage charge, a non-compliance trade waste usage charge, excess mass charges, non-compliance excess mass charges and penalty notices), it would be in the economic interest of each trade waste discharger to minimize their efforts and expenditure on control and pre-treatment of their trade waste before discharging it to the sewerage system. In the past, failure to implement these measures has caused multi-million dollar damage to sewerage networks, pumping stations and treatment works (refer to the examples shown on pages 30, 47 and 48 of the *Liquid Trade Waste Regulation Guidelines, 2009*).

<sup>6</sup> In accordance with the *NSW Developer Charges Guidelines for Water Supply, Sewerage and Stormwater, 2002*.

<sup>7</sup> In accordance with page 29 of the *NSW Water Supply, Sewerage and Trade Waste Pricing Guidelines, 2002*.

<sup>8</sup> In accordance with Appendices D and I of the *Liquid Trade Waste Regulation Guidelines, 2009*.

*Guidelines, 2007* and is consistent with that in the *National Framework for Wastewater Source Management*.<sup>9</sup>

In particular, under the *Best-Practice Management Guidelines* each LWU is required to achieve the following outcomes:

- Prepare and implement a 30-year Integrated Water Cycle Management Strategy, demand management plan, pay-for-use water supply pricing and community and customer involvement (Elements 1, 6, 8)
- Annual performance monitoring, including an annual triple bottom line (TBL) Performance Report and Action Plan to identify and address any areas of under-performance (Elements 5, 6, 9, 10, 11, 12)
- Achieve full cost recovery for water supply, sewerage and trade waste services and apply an appropriate non-residential sewer usage charge (Elements 3, 8)
- Prepare and implement a sound trade waste regulation policy and issue an appropriate approval to each trade waste discharger, including waste minimisation and cleaner production (Elements 1, 2, 3, 4, 7, 8)
- Appropriate trade waste fees and charges (including incentives to comply with LWU's approval conditions through non-compliance trade waste usage charges and non-compliance excess mass charges) (Elements 3, 8)
- Trade waste services agreement for large dischargers to assure compliance (Elements 3, 8)
- Appropriate training of LWU staff and monitoring, mentoring and coaching of trade waste dischargers (Elements 1, 4, 5, 7, 8)
- Enforcement, including appropriate use of penalty notices or orders (Elements 3, 8)
- Disconnection of a trade waste service in the event of persistent failure to comply with the LWU's conditions of approval (Element 8).

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<sup>9</sup> The following 12 elements of the *National Framework for Wastewater Source Management* are set out on page 22 of the *National Wastewater Source Management Guideline, July 2008*, WSAA:

**COMMITMENT**

1. Commitment to Wastewater Source Management

**SYSTEM ANALYSIS and MANAGEMENT**

2. Assessment of the Wastewater System
3. Preventive Measures for Wastewater Input Quality Management
4. Operational Procedures and Process Control
5. Verification of Wastewater Inputs Quality
6. Management of Incidents/Complaints and Emergencies

**SUPPORTING REQUIREMENTS**

7. Employee Awareness and Training
8. Customer and stakeholder involvement and awareness
9. System Validation and Research and Development
10. Documentation and Reporting

**REVIEW**

11. Evaluation and Audit
12. Review and Continual Improvement



### 3.3 Application Procedures

To obtain Council's approval to discharge liquid trade waste to Council's sewerage system, a discharger must lodge an application in writing. Application forms are available from Council. If a person wishes to discharge liquid trade waste to the sewerage system but is not the owner of the premises, the person must obtain the owner's consent to the application.

The applicant must provide the following information:

- site owner's full name, address, contact telephone number
- address of the business/industry where discharge to the sewerage system will occur
- name of contact person for the premises and telephone contact for the business/industry
- type of process/activity generating the liquid trade waste
- normal hours of business operation
- rate of discharge, including
  - the average per day, maximum per day and per hour, and
  - hours of the day during which discharge will take place
- characteristics of wastes, including
  - nature of source
  - expected maximum and average concentrations of pollutants

(Where sampling and testing are required to establish the quality of the liquid trade waste, the testing should be carried out in accordance with the procedures set out in the *Standard Methods for the Examination of Water and Wastewater* published by the American Public Health Association, American Water Works Association and Water Pollution Control Federation.)

- chemicals to be used – supply Material Safety Data Sheets
- details of any proposed pre-treatment facilities, location and site plan. Details should include:
  - pre-treatment process details
  - internal wastewater drainage
  - pump size
  - rising main size, length and profile
  - system operational characteristics
  - operational procedures
  - provisions for sampling and flow measurement, where required
  - proposed connection point to the sewerage system
- flow diagram and hydraulic profile of proposed liquid trade waste pre-treatment facilities
- maintenance schedule for pre-treatment equipment, including contractor's details
- stormwater drainage plan
- measures for prevention of stormwater ingress into the sewerage system
- location, nature and chemical composition of all substances stored/used on site
- justification for disposing of the waste into the sewerage system over other possible options (if any)
- methods of disposal for other wastes that are not discharged to the sewerage system
- any relevant environmental impact assessments
- any additional information as requested by Council.

The following information needs to be provided in regard to the discharge of septic tank and pan waste to the sewerage system:

- identification of the pump out service provider
- proposed method of discharge including plans and drawings if appropriate
- details of any proposed facilities for a disposal point, location and site plan (if applicable). Details should include the proposed connection point to the sewerage system
- security arrangements at the proposed disposal site (if applicable)
- the provision of freshwater for hosing down where needed

- bunding and measures to prevent the ingress of stormwater at the proposed dump point, if applicable
- the use of odour inhibiting or other chemicals, if any, and their dosage rates
- statement that septic effluent will not be mixed with septage or grease trap pump out, ie. dedicated tankers will be used for each type of waste
- for boat/marina facility – the type and number of vessels either moored at the marina and/or would utilise the pump-out facility on a regular basis:
  - private
  - commercial.

Council may, under section 86 of the Local Government Act, request an applicant to provide more information to enable it to determine the application.

### **3.4 Approval of applications**

Where an application is approved, Council will notify the applicant as soon as practical of the approval and any conditions of the approval. The duration of the approval will be as stated in the approval. In cases where Council requires a discharger to enter into a liquid trade waste services agreement (refer to section 3.9), Council will issue a deferred commencement approval under section 95 of the Local Government Act requesting the discharger to do so within the time specified in Council's letter. In such cases, the approval will not be operative until the agreement has been executed by the discharger.

An applicant may make a minor amendment or withdraw an application before it is approved by Council. An applicant may also apply to Council to renew or extend an approval, in accordance with section 107 of the Local Government Act.

If an application is refused, Council will notify the applicant of the grounds for refusal.

An approval to discharge liquid trade waste to Council's sewer is not transferable. A new application must be lodged and a new approval obtained if there is a change of the approval holder or the activity. Council must be notified of change of ownership and/or occupier in all cases, whether a new approval is required or not, to allow updating of records

### **3.5 Concurrence of the Department of Environment, Climate Change and Water**

If Council supports an application and has a notice stating that concurrence of the Director-General, Department of Trade and Investment, Regional Infrastructure and Services (DTIRIS) can be assumed for the waste relevant to the application, Council will approve the application. Otherwise, Council will seek concurrence from DTIRIS in accordance with the requirements of section 90(1) of the Local Government Act. All such concurrence requests will be provided to the NSW Office of Water (a separate office within DTIRIS).

Liquid trade waste discharges are divided into four (4) classifications for the purpose of the concurrence process:

- Concurrence Classification A – liquid trade waste dischargers for which Council has been authorised to assume concurrence to the approval subject to certain requirements
- Concurrence Classification B – liquid trade waste dischargers whereby Council may apply to the Director-General, DTIRIS for authorisation to assume concurrence to the approval subject to certain requirements
- Concurrence Classification S – the acceptance of septic tank, pan waste and ship-to-shore pump-out. Council may apply to the Director-General, DTIRIS for authorisation to assume concurrence to the approval subject to certain conditions
- Concurrence Classification C – all other liquid trade waste dischargers that do not fall within Concurrence Classification A, B or S, and therefore require Council to apply to DTIRIS for concurrence.

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All councils have been authorised to assume concurrence for Concurrence Classification A liquid trade waste discharges. These are listed in Table 4 and Council will not need to seek DTIRIS concurrence for approval of trade waste applications for these activities.

**Table 4. Liquid trade waste discharges with automatic assumed concurrence**

Commercial retail food preparation activities	Other commercial activities
Bakery (retail)	Animal wash (pound, stables, racecourse, kennels, mobile animal wash and veterinary with no x-ray)
Bed and Breakfast (<10 persons)	Beautician
Bistro	Boiler blowdown
Boarding house/hostel kitchen	Car detailing
Butcher shop (retail)	Cooling tower
Café/coffee shop/coffee lounge	Craft activities (making of clay pottery, ceramics, cutting and polishing of gemstones or making of jewellery at clubs, cottage industries)
Canteen	Dental surgery/dental specialist
Cafeteria	Dental technician
Chicken/poultry shop (only fresh chickens/game sold)	Doctor's surgery, medical centre – plaster casts (no x-rays)
Chicken/poultry shop (retail BBQ/charcoal chicken)	Florist
Club (kitchen wastes)	Funeral parlour, morgue
Commercial kitchen/caterer	Hairdressing (includes barbers)
Community hall/civic centre	Jewellery shop
Day care centre	Laboratory (pathology/analytical)
Delicatessan	Laundry or Laundromat (coin operated)
Doughnut shop	Lawnmower repairs
Fast food outlet (Macdonalds, KFC, Burger King, Pizza Hut, Red Rooster, etc.)	Mechanical repairs
Fish shop (retail – fresh and/or cooked)	Mobile cleaning units
Food caravan	Optical service
Fruit and vegetable shop (retail)	Pet shop (retail)
Function centre	Photographic tray work/manual development
Hotel	Plants retail (no nursery)
Ice cream parlour	School (primary and secondary)
Juice bar	Stone working
Mixed business	Swimming pools/spa/hydrotherapy
Motel	Vehicle washing (by hand/wand, automatic car wash, external truck wash or underbody/engine degrease only)
Nightclub	Venetian blind cleaning
Nursing home kitchen	Veterinary/animal kennels with x-ray
Nut shop	Waterless minilab
Patisserie	

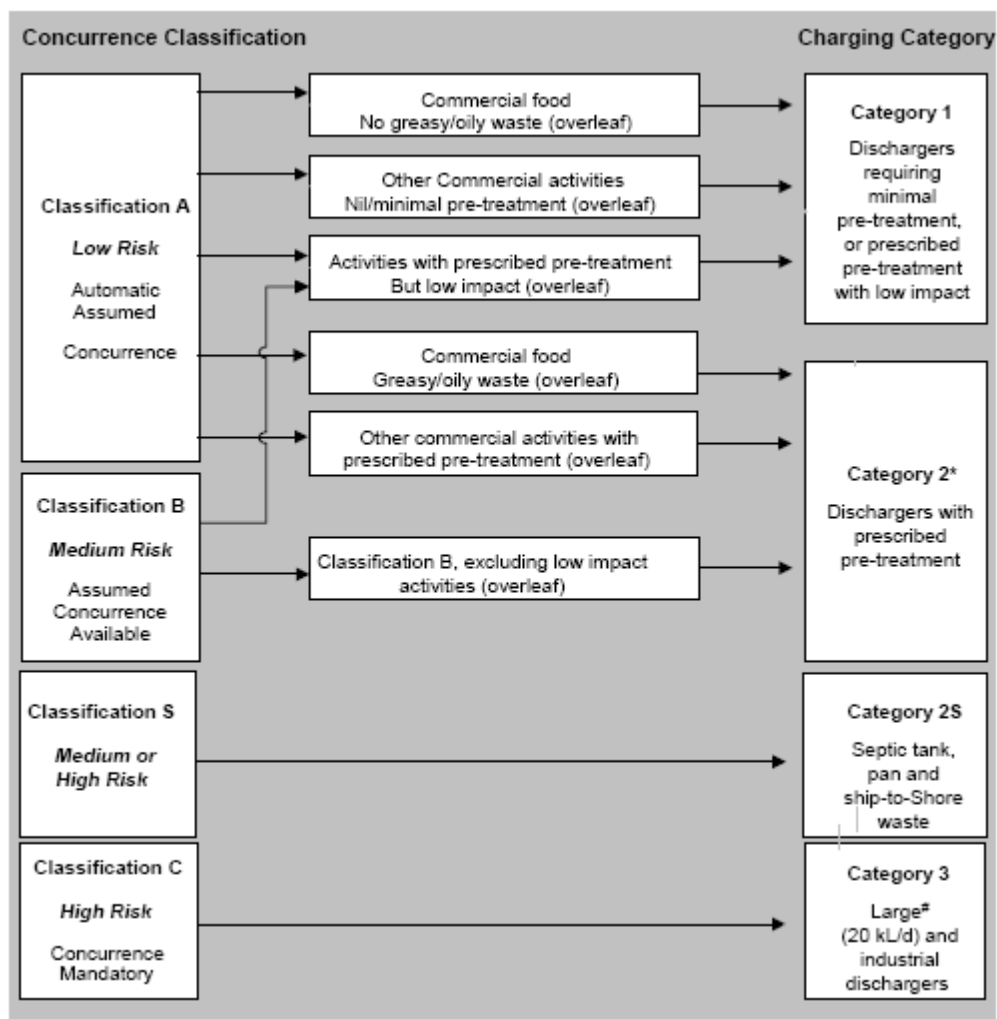
Pie shop	
Pizza shop	
Restaurant	
Salad bar	
Sandwich shop	
School canteen	
Supermarket (with butcher/delicatessen/seafood/or charcoal chickens)	

**Note:** The volume of liquid trade waste must be less than 5 kL/d or 1000 kL/a except in the case of commercial retail food preparation activities, where up to 16 kL/d is included in this category. If the waste discharged to the sewer exceeds these volumes, the application must be treated as Concurrence Classification B. Discharges over 20 kL/d must be treated as Classification C.

### 3.6 Liquid trade waste charging categories

Four (4) classifications of liquid trade waste have been established for concurrence purposes, Classification A, B, C and S (refer section 3.5). For trade waste charging purposes there are also four (4) charging categories, Category 1, 2, 2S and 3.

Figure 1 below shows that Classification A dischargers fall into Charging Category 1 or Category 2. Classification B dischargers fall into Charging Category 2, except for a few dischargers with low impact on the sewerage system which fall into Category 1. Classification S dischargers fall into Charging Category 2S. Classification C dischargers fall into Charging Category 3.



**Figure 1. Charging categories for trade waste**

\* Also includes fish shop (fresh fish for retail)

# Except shopping complexes and institutions (hospital, educational facilities, etc.). These will be charged as Category 2 in accordance with activities carried out on the premises.

### Category 1 Discharger

Category 1 liquid trade waste dischargers are those conducting an activity deemed by Council as requiring nil or only minimal pre-treatment equipment and whose effluent is well defined and of a relatively low risk to the sewerage system. In addition, Category 1 includes dischargers requiring prescribed pre-treatment but with low impact on the sewerage system.

**Classification A activities – Commercial retail food preparation activities that do not generate an oily/greasy waste:** bakery (only bread baked on-site), bistro (sandwiches, coffee only), café/coffee shop/coffee lounge, canteen, community hall (minimal food), day care centre, delicatessen, fruit and vegetable shop, hotel, ice cream parlour (take away only), juice bar, mixed business, motel, nightclub, nut shop, pizza cooking/reheating (no preparation or washing up on-site, pizza heated and sold for consumption off-site), potato peeling (small operation), sandwich shop/salad bar, take away food outlet.

**Classification A activities – Other commercial activities:** animal wash, beautician/hairdressing, crafts < 1000 L/d, dental surgery (plaster casts, no X-ray unless digital), doctor's surgery and medical centre (plaster casts, no X-ray), florist, funeral parlour, mobile cleaning units, morgue, jewellery shop, optical service (retail), pet shop, plants retail (no nursery), public swimming pool, photographic (tray work/manual development), venetian blind cleaning, veterinary (no X-ray).

**Classification A or B activities – dischargers with prescribed pre-treatment with low impact on the sewerage system:** boiler blowdown, cooling tower, industrial boilers, laboratory (analytical/pathology/tertiary institution), laundry, primary and secondary school<sup>10</sup>, vehicle washing.

### Category 2 Discharger

Category 2 liquid trade waste dischargers are those conducting an activity deemed by Council as requiring a prescribed type of liquid trade waste pre-treatment equipment and whose effluent is well characterised.

**Trade Waste dischargers with prescribed pre-treatment<sup>11</sup> include:**

**Classification A activities:** Premises that **prepare and/or serve hot food or foods that generate an oily/greasy waste:** bakery (pies, sausage rolls, quiches, cakes, pastries with creams or custards), bistro, boarding house/hostel kitchen, butcher, café/coffee shop/coffee lounge, cafeteria, canteen, fast food outlet, chicken/poultry shop, club, community hall<sup>12</sup>, commercial kitchen/caterer, nursing home, patisserie, supermarket, doughnut shop, fish shop (cooking on-site), function centre, hotel, ice cream parlour, motel, nightclub, pizza cooking, restaurant, sandwich shop/salad bar, take away food outlet.

**Other commercial Classification A activities:** car detailing, craft activities > 1000 L/d, dental surgery with X-ray, lawnmower repairs, mechanical workshop, stone working, veterinary (with X-ray), waterless mini-lab.

**Classification B activities:** auto dismantler, bus/coach depot, construction equipment maintenance and cleaning, equipment hire, maintenance and cleaning, glass cutting and grinding, graphic arts, hospital (with or without X-ray), medical centre (with X-ray), optical services (at medical or educational facilities, workshops), oyster processing – shucking, panel beating, photographic lab, radiator repairer, screen printing, service station forecourt, shopping complex, water wash mini-lab, X-ray radiologist.

**Other Classification A activities:** fish shop (fresh fish for retail).

### Category 2S Discharger

Category 2S dischargers are those conducting an activity of transporting and/or discharging septic tank or pan content waste into the sewerage system.

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<sup>10</sup> If significant hot food preparation is carried out, Category 2 charges may be levied by Council.

<sup>11</sup> Excludes low impact activities, listed under Category 1.

<sup>12</sup> If the type and size of kitchen fixtures installed enable catering for large functions.

**Trade waste dischargers include the following Classification S activities:**

**Classification S activities:** bus/rail coaches/caravan/motor home/caravan park waste dump points, mooring/marina dump points, pan waste, portable chemical toilet waste, septage, septic tank effluent, ship-to-shore pump-outs (galley waste and toilet waste).

**Category 3 Discharger (large or industrial waste dischargers)**

Category 3 liquid trade waste dischargers are those conducting an activity which is of an industrial nature and/or which results in the discharge of large volumes (over 20 kL/d) of liquid trade waste to the sewerage system. Any Category 1 or 2 discharger whose volume exceeds 20 kL/d becomes a Category 3 discharger, except shopping complexes and institutions (eg. hospitals, educational facilities, correctional facilities, etc.).

**Large trade waste dischargers and other Classification C activities include:** abattoir, bakery (wholesale), brewery, cooling towers, cosmetics/perfumes manufacture, dairy processing (milk/cheese/yoghurt/ice cream etc.), food processing (cereals/cannery/condiments/ confectionary/edible oils/fats/essence/ flavours/fish/fruit juice/gelatine/honey/meat/pickles/ smallgoods/tea and coffee/vinegar/yeast manufacture etc.), fruit and vegetable processing, flour milling, glue manufacturer, egg processing, pet food processing, plants nursery (open areas), potato processing, poultry processing, saleyards, seafood processing, soft drink/cordial manufacture, starch manufacture, sugar refinery, tanker washing, tip leachate, transport depot/ terminal, water treatment backwash, wholesale meat processing, winery, wine/spirit bottling.

**Dischargers of industrial waste include the following Classification C activities:** acid pickling, adhesive/latex manufacture, agricultural and veterinary drugs, anodising, bitumen and tar, bottle washing, cardboard and carton manufacture, carpet manufacture, caustic degreasing, chemicals manufacture and repackaging, contaminated site treatment, cyanide hardening, detergent/soaps manufacture, drum washing, electroplating, engine gearbox reconditioning, extrusion and moulding (plastic/metal), feather washing, fellmonger, felt manufacture, fertilisers manufacture, fibreglass manufacture, filter cleaning, foundry, galvanising, glass manufacture, ink manufacture, laboratories (excluding those in Category 2), liquid wastewater treatment facility (grease trap receival depot and other pump-out waste depot), metal finishing, metal processing (refining/rumbling/ non-cyanide heat treatment/phosphating/ photo engraving/printed circuit etching/sheet metal fabrication etc.), mirrors manufacture, oil recycling (petrochemical) and refinery, paint stripping, paint manufacture, paper manufacture, pharmaceuticals manufacture, plaster manufacture, powder coating, printing (newspaper, lithographic), sandblasting, slipway, tannery, timber processing (joinery and furniture/plywood/hardwood), textile manufacture (wool dyeing/ spinning/scouring), truck washing (internal), waxes and polishes.



### 3.7 Liquid trade waste fees and charges

Council provides sewerage and liquid trade waste services on a commercial basis, with full cost recovery through sewerage and liquid trade waste fees and charges. Council's proposed fees and charges are advertised annually for public comment in its draft Management Plan. In addition to the trade waste fees and charges described below, Council may elect to include any trade waste charges shown in Appendix I of the *Liquid Trade Waste Regulation Guidelines, 2009*.

Liquid trade waste discharged to the sewerage system from industrial, commercial or other non-residential customers can impose significant costs on sewage transport and treatment facilities. To recover these costs and to ensure removal of existing significant cross-subsidies from residential customers, in addition to a two-part tariff with an appropriate **sewer usage charge/kL** for non-residential sewerage, appropriate fees and charges are levied for liquid trade waste. Council's liquid trade waste fees and charges may include:

- Application fee
- Annual trade waste fee
- Re-inspection fee
- Trade waste usage charge
- Septic tank and pan waste disposal charge
- Excess mass charges
- Food waste disposal charge
- Non-compliance trade waste usage charge
- Non-compliance excess mass charge and pH charge
- Non-compliance penalty.

#### 3.7.1 ***Application fee***

The application fee recovers the cost of administration and technical services provided by Council in processing applications for approval to discharge liquid trade waste to the sewerage system. The application fee will be allocated on the basis of the category into which the discharger is classified and reflects the complexity of processing the application. Application fees will be set annually by Council.

#### 3.7.2 ***Annual trade waste fee***

The purpose of this fee is to recover the cost incurred by Council for administration and the scheduled inspections each year to ensure a liquid trade waste discharger's ongoing compliance with the conditions of their approval.

As part of an inspection, Council or its agents may undertake monitoring of the liquid trade waste discharges from premises or business. Such monitoring may include but is not limited to, flow measurement and the sampling of the liquid trade waste. **Where more than one (1) instance+** of such monitoring is undertaken by Council, or its agents, in a financial year, the cost involved may be recovered from the discharger.

Annual liquid trade waste fees are determined on the basis of the category of the discharger and are proportionate to the complexity of their inspection and administration requirements. Annual trade waste fees will be set by Council. Where the discharger is required to pay for monitoring this will be charged on the basis of full cost recovery.

#### 3.7.3 ***Re-inspection fee***

Where non-compliance with the conditions of an approval has been detected and the discharger is required to address these issues, Council will undertake re-inspections to confirm that remedial action has been satisfactorily implemented. Council will impose a fee for each re-inspection. The re-inspection fee will be set annually by Council on the basis of full cost recovery. A re-inspection may

include the monitoring of liquid trade waste discharges, the cost of which may be recovered from the discharger.

### 3.7.4 Trade waste usage charge

The trade waste usage charge is imposed to recover the additional cost of transporting and treating liquid trade waste from Category 2 dischargers.

Trade Waste Usage Charge (\$) =  $Q \times \$1.50/\text{kL}$  (2010/11 \$)

Where Q = Volume (kL) of liquid trade waste discharged to sewer.

### 3.7.5 Excess mass charges

Excess mass charges will apply for substances discharged in excess of the deemed concentrations in domestic sewage shown in Table 5 below. For excess mass charge calculation, Equation 1 below will be applied.

**Table 5. Deemed concentration of substances in domestic sewage**

Substance	Concentration (mg/L)
Biochemical Oxygen Demand (BOD5)	300
Suspended Solids	300
Total Oil and Grease	50
Ammonia (as Nitrogen)	35
Total Kjeldahl Nitrogen	50
Total Phosphorous	10
Total Dissolved Solids	1000
Sulphate (SO <sub>4</sub> )	50 <sup>#</sup>

# Except The concentration in the potable water supply to be used if it is higher than 50mg/L.

NB. Substances not listed above are deemed not to be present in domestic sewage.

$$\text{Liquid Trade Waste Excess Mass Charge (\$)} = \frac{(S - D) \times Q \times U}{1,000}$$

**Equation 1**

Where:

- S = Concentration (mg/L) of substance in sample
- D = Concentration (mg/L) of substance deemed to be present in domestic sewage.
- Q = Volume (kL) of liquid trade waste discharged to the sewerage system.
- U = Charging rate (\$/kg) for discharge of substance to the sewerage system.

Charging rates (U) used in Equation 1 are as shown in Council's Annual Management Plan.

With regard to BOD, Equation 1 applies for BOD5 up to 600mg/L.

#### **Excess mass charges for BOD exceeding 600mg/L**

If Council approves the acceptance limits for BOD higher than 600mg/L, an exponential type equation will be used for calculation of the charging rate  $U_e$  (\$/kg) as shown in Equation 2. Equation 2 provides a strong incentive for dischargers to reduce the strength of waste. In addition, Equation 5 will be used where the discharger has failed to meet their approved BOD limit on two (2) or more instances in a financial year.

$U_e$  is the excess mass charging rate for BOD (\$/kg).

$$U_e = 2C \times \frac{(ActualBOD - 300mg / L)}{600mg / L} \times 1.05^{\left( \frac{ActualBOD - 600mg / L}{(600mg / L)} \right)}$$

**Equation 2**

Where: C = the charging rate (\$/kg) for BOD<sub>5</sub> 600mg/L

Actual BOD – the concentration of BOD<sub>5</sub> as measured in a sample

For example if C = \$0.623/kg, Equation 2 would result in the following excess mass charging rates:

\$0.623/kg for BOD<sub>5</sub> 600mg/L

\$1.96/kg for BOD<sub>5</sub> 1200mg/L

\$5.05/kg for BOD<sub>5</sub> 2400mg/L

The excess mass charge for BOD(\$) = 
$$\frac{(S - D) \times Q \times U_e}{1,000}$$

### **3.7.6 Food waste disposal charge<sup>13</sup>**

Where Council has permitted the use of a food waste disposal unit for an existing hospital, nursing home or other eligible facility, the following additional food waste disposal charge will be payable annually.

Food Waste Disposal Charge (\$) = B x UF

Where: B = Number of beds in hospital or nursing home.

UF = Annual charging rate (\$/bed) for a food waste disposal unit at a hospital or nursing home.

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<sup>13</sup> For existing installations only. New installations are not permitted.

### 3.7.7 Non-compliance charges

#### Category 1 and 2 Dischargers

If the discharger has not installed or maintained appropriate pre-treatment equipment, the following trade waste usage charges will be applied for the relevant billing period:

Category 1 Discharger - \$1.50\*/kL (2010/11\$)

Category 2 Discharger - \$13.82\*/kL (2010/11\$)

#### Category 3 Discharger

##### Non-compliance pH charge

Equation 3 is used for waste with pH being outside the approved range. This equation provides an incentive for dischargers to apply appropriate pH correction so their waste remains within the approved pH limits. Council may require industrial and large dischargers to install and permanently maintain a pH chart recorder or data logger as control of pH is critical to minimising odour and corrosion problems in the sewerage system.

Charging rate for pH where it is outside the approved range for the discharger =

$$K \times (\text{actual pH} - \text{approved pH})^{\#} \times 2^{(\text{actual pH} - \text{approved pH})^{\#}}$$

**Equation 3**

# absolute value to be used.

K = pH coefficient = 0.377 (2010/11\$) and needs to be adjusted in accordance with changes in the CPI.

*Example: Council has approved the pH range 8.0 to 9.0 for a large discharger generating high strength trade waste in order to prevent corrosion and odour problems in the sewerage system.*

Case 1: pH measured 7.0

$$\text{Charging rate } (\$/\text{kL}) = 0.377 \times [7 - 8] \times 2^{[7 - 8]} = \$0.75/\text{kL}$$

Case 2: pH measured 11.0

$$\text{Charging rate } (\$/\text{kL}) = 0.377 \times [11 - 9] \times 2^{[11 - 9]} = \$3.02/\text{kL}$$

#### Non-compliance excess mass charges

Where a discharge quality fails to comply with the approved concentration limits of substances specified in Council's approval conditions (or the acceptance criterion listed in Council's trade waste policy), Council incurs additional costs in accepting and treating that waste. Council may also face problems with the effluent and biosolids management.

In order to recover Council's costs, Equation 4 shall apply for non-compliance excess mass charges, except for BOD where Equation 5 shall apply.

$$\text{Non-compliant Excess Mass Charges } (\$) = \frac{(S - A) \times Q \times 2U}{1,000} + \frac{(S - D) \times Q \times U}{1,000}$$

**Equation 4**

Where:

- S = Concentration (mg/L) of substance in sample
- A = Approved maximum concentration (mg/L) of pollutant as specified in Council's approval (or liquid trade waste policy)
- Q = Volume (kL) of liquid trade waste discharged to the sewerage system.
- U = Charging rate (\$/kg) for discharge of substance to the sewerage system.
- D = Concentration (mg/L) of substance deemed to be present in domestic sewage.

### Non-compliance excess mass charges for BOD

If a discharger has failed to meet the approved maximum concentration of BOD on two or more instances in a financial year, the non-compliance excess mass charging rate for BOD  $U_n$  will be levied on the basis of Equation 5:

$U_n$  is the BOD non-compliance excess mass charging rate.

$$U_n = 2C \times \frac{(A - 300 \text{ mg/L})}{600 \text{ mg/L}} \times 1.05^{\frac{(A - 600 \text{ mg/L})}{600 \text{ mg/L}}} + 4C \times \frac{(\text{Actual BOD} - A)}{600 \text{ mg/L}} \times 1.05^{\frac{(A - 600 \text{ mg/L})}{600 \text{ mg/L}}}$$

**Equation 5**

For example, if  $C = \$0.623/\text{kg}$ ,  $\text{BOD}_5$  actual (measured) level is  $2400 \text{ mg/L}$  and the approved maximum concentration of BOD ( $A$ ) is  $1000 \text{ mg/L}$ , Equation 5 would result in a non-compliance excess mass charging rate of  $\$8.02/\text{kg}$ .

Non-compliance Excess Mass Charge for BOD is calculated using Equation 1:

$$\text{Non-compliance Excess Mass Charge (\$)} = \frac{(S - D) \times Q \times U_n}{1,000}$$

**The non-compliance excess mass charges shown above are in lieu of the excess mass charges in section 3.7.5.**

**NB.** Council will continue applying the above non-compliance excess mass charge until the quality of discharge complies with Council's approved quality (or the trade waste policy) limits, within the time frame determined by Council for remedying the problem. If the discharger fails to rectify the problem within this time frame, the discharger may be required to cease discharging liquid trade waste into Council's sewerage system and may also be required to pay a 'non-compliance penalty' as indicated in the following section.

### 3.7.8 Non-compliance penalty

The non-compliance penalty covers instances where Council may seek compensation for its costs relating to legal action, damage to infrastructure, incurred fines and other matters resulting from illegal, prohibited or unapproved liquid trade waste discharged to the sewerage system. Also included are fines under:

- *Protection of the Environment Operations Act 1997*, section 120(1) (Pollution of any waters by a discharger who fails to comply with the conditions of approval for discharge of liquid trade waste to sewer)
- *Local Government Act, 1993*, section 627 (Failure to comply with an approval), section 628 (Failure to comply with an order). Non-compliance penalties will be pursued by legal action.

### 3.7.9 Discharge of stormwater to the sewerage system

The discharge of stormwater, surface and subsoil waters to the sewerage system is prohibited under this policy. As indicated in Section 2.4, the acceptance of first flush stormwater runoff may be permitted. A charge will be applied to Category 3 dischargers in accordance with the non-compliance trade waste usage charge, if approval is granted to accept the above waters. Excess mass charges will be also applied in accordance with Section 3.7.5.

### 3.7.10 Septic and pan waste disposal charge

This charge is imposed to recover the cost of accepting and treating septic tank and pan waste.

Septic tank and pan waste disposal charge (\$) = Q x S

Where:                    Q = Volume (kL) of waste discharged to sewer.  
                              S = Charging rate in \$/kL for septic tank effluent, septage or chemical toilet waste  
                                      as indicated in Council's Annual Management Plan.\*

### ***3.7.11 Responsibility for payment of fees and charges***

Property (land) owners are responsible for the payment of fees and charges for water supply, sewerage and liquid trade services provided by Council. This includes property owners of marina, caravan park, etc., if a dump point located at their premises is connected to the sewerage system. Where another party (lessee) leases premises any reimbursement of the lessor (property owner) for such fees and charges is a matter for the lessor and the lessee.

Council will charge a septic tank and pan waste disposal charge for services it provides to transporters of septic tank and pan waste tankered and discharged to the sewerage system.

**Table 6. Summary of trade waste fees and charges<sup>14</sup>**

Charging Category	Application Fee	Annual Non-Residential sewerage bill with appropriate sewer usage charge/kL	Annual trade waste fee	Re-inspection fee (when required)	Trade waste usage charge/kL	Septic waste disposal charge	Excess mass charges (\$/kg)	Non-compliance trade waste usage charge/kL	Non-compliance excess mass/kg and pH charges/kL (if required)	Non-compliance penalty (if required)
1	Yes <sup>15</sup>	Yes	Yes	Yes	No	No	No	Yes <sup>16</sup>	No	Yes
2	Yes	Yes	Yes	Yes	Yes	No	No	Yes <sup>16</sup>	No	Yes
2S	Yes	Yes <sup>17</sup>	Yes	Yes <sup>17</sup>	No	Yes	No	No	No	Yes
3	Yes	Yes	Yes	Yes	No	No	Yes	No	Yes	Yes

All dischargers of liquid trade waste to Council's sewerage system should be aware that they are subject to prosecution and imposition of fines under the *Local Government Act 1993* and the *Protection of the Environment (Operations) Act 1997* and Regulations. In addition to fines, Council may recover costs of damages and fines incurred by Council as a result of an illegal liquid trade waste discharge.

### 3.8 Monitoring

Council will carry out inspections of the premises of all liquid trade waste dischargers and their treatment facilities at least once per annum. Inspections of commercial premises preparing hot food may be carried out at least four (4) times per annum (refer to section 3.7.2). Monitoring of the large and industrial dischargers is to be carried out as specified in the approval conditions.

The applicant may be required to monitor the liquid trade waste discharge as a condition of an approval or agreement. They may also be required to pay for any sampling and testing of liquid trade waste undertaken by Council.

For this purpose, an inspection/sampling point, where the waste can be inspected and sampled, will be specified in the approval and/or agreement. This point will normally be located after the pre-treatment facility. The discharger may need to install a suitable method of flow measurement.

<sup>14</sup> In addition, a Food Waste Disposal Charge will apply where Council has approved the use of an existing food waste disposal unit for a hospital, nursing home or other eligible facility (refer to section 3.7.6 on page 33).

<sup>15</sup> Not applicable for dischargers exempted in Table 1.

<sup>16</sup> Non-compliance trade waste usage charge, if the discharger fails to install or properly maintain appropriate pre-treatment equipment:  
Category 1 - \$1.50/kL (2010/11\$)  
Category 2 - \$13.82/kL (2010/11\$)

<sup>17</sup> Only applicable if the discharger has a dump point located at their premises which is connected to the sewerage system

Council may require the discharger to:

- install a permanent primary measurement device
- measure the volume and flow rate using the permanently installed flow measurement system (such as a flow metering system)
- install a flow measurement device on a temporary basis and obtain enough data to determine a basis for assessing the flow rate and volume
- provide a system which allows obtaining a flow weighted composite sample.

Testing of samples is to be undertaken by a NATA-registered or other laboratory recognised by NSW Office of Water (NOW) to ensure reliable and accurate results. Where the discharger is sampling the effluent, Council may randomly take duplicates to confirm the waste characteristics.

### **3.9 Liquid trade waste services agreement**

In addition to its approval under the Local Government Act, Council may require certain dischargers, including those who wish to discharge liquid trade waste in large volumes (discharge >20 kL/d) or industrial waste (Concurrence Classification C discharges) or Classification S into its sewerage system to execute a liquid trade waste services agreement (refer to Attachment 1). The agreement will set out the conditions associated with the discharge and execution of the agreement will be a condition of the approval issued by Council (refer to section 3.4). The conditions will be binding on the applicant and the Council. The agreement will be for a period of up to five (5) years. No discharge is to be made to Council's sewerage system until an agreement or an interim agreement has been executed.

Provision can be made in the agreement for (in addition to Council's approval conditions):

- additional conditions for discharge of liquid trade waste
- cancellation of the agreement and/or order to cease the discharge if the discharger is found to be in breach of the agreement or the liquid trade waste approval or, in the opinion of Council, the waste is adversely affecting the sewerage system or the environment
- entry by Council officers to inspect the liquid trade waste collection, treatment, monitoring and disposal systems
- the applicant to notify Council in advance of any changes that may affect the quality and quantity of the liquid trade waste
- the amount of bond/security to be lodged with Council prior to discharging to the sewerage system.

### **3.10 Enforcement of approvals and agreements**

(see the attached sample agreement at Attachment 1)

Any person who fails to obtain Council's approval to discharge liquid trade waste into the sewerage system, or fails to comply with the conditions of the approval, may be liable to a penalty as provided under the *Local Government Act 1993* (sections 626 to 628 and 634 to 639).

Polluting of any waters by a discharger of liquid trade waste who does not have a Council approval or who fails to comply with the conditions of the approval is an offence under section 120 (1) of the *Protection of the Environment Operations Act 1997*. In addition, under section 222 of this Act, Council may issue a penalty notice (ie. an on-the-spot fine) to such a discharger.

Any person who fails to comply with the terms or conditions of a liquid trade waste services agreement (ie. there is a breach of the agreement) will be required to indemnify the Council against any resulting claims, losses or expenses in accordance with Section 9 of the agreement. Suspensions may also apply and may include a notice to cease the discharge.



### **3.11 Modification and revocation of approvals**

Council reserves the right to modify or revoke an approval to discharge liquid trade waste to the sewerage system in any of the following circumstances:

- if the approval was obtained by fraud, misrepresentation or concealment of facts
- for any cause arising after the granting of the approval which, had it arisen before the approval was granted, would have caused the council not to have granted the approval
- for failure to comply with a requirement made by or under the *Local Government Act 1993* relating to a condition of the approval
- for failure to comply with a condition of the approval.

### **3.12 Prevention of waste of water**

Water must be used efficiently and must be recycled where practicable. It is an offence under section 637 of the *Local Government Act 1993* and its Regulation (refer to Attachment 2) to waste or misuse water.

Dilution of trade waste with water from any non-process source including Council's water supply, bore water, groundwater and/or stormwater as a means of reducing pollutant concentration is therefore strictly prohibited.

### **3.13 Effluent improvement plans**

Where the existing liquid trade waste discharged does not meet Council's requirements, the applicant may be required to submit an Effluent Improvement Plan setting out how Council's requirements will be met. The proposed plan must detail the methods/actions proposed to achieve the discharge limits and a timetable for implementation of the proposed actions. Such actions may include more intensive monitoring, improvements to work practices and/or pre-treatment facilities to improve the effluent quality and reliability.

### **3.14 Due diligence programs and contingency plans**

For *Concurrence Classification A*, a discharger is not required to submit either a due diligence program or a contingency plan.

A discharger may be required to submit a due diligence program and a contingency plan for *Concurrence Classification B or Classification S* where it is considered that the discharge may pose a potential threat to the sewerage system. If required, a due diligence program and contingency plan must be submitted to Council within six (6) months and three (3) months respectively of receiving a liquid trade waste approval.

For *Concurrence Classification C*, a discharger may need to provide a due diligence program and contingency plan to Council within six (6) months and three (3) months respectively of receiving a liquid trade waste approval.

It should be noted that:

1. If the discharger has an accredited environmental management system in place, a due diligence program and contingency plan may not be required. However, proof of accreditation must be provided to Council with the application. The EMP may not include all necessary provisions in regard to trade waste. In such cases Council may require that a suitable due diligence program and contingency plan be developed and submitted to Council.
2. Where Council considers there is potential risk to the sewerage system from a discharge, it may request a due diligence program and contingency plan to be submitted prior to commencing the discharge.

## **ATTACHMENT 1**

### **SAMPLE LIQUID TRADE WASTE SERVICES AGREEMENT between Blayney Shire Council and [Applicant]**

# Liquid Trade Waste Services Agreement

## Between

1. The Council

## And

2. The Applicant

## Recitals

- A. The Council is the owner and operator of a sewerage system within the Blayney area.
- B. The Applicant has made application to the Council to discharge liquid trade waste from the Premises into the Council's sewerage system.
- C. The application has been approved by the Council on certain conditions ("the Approval"), including the condition that the Council and the Applicant enter into this Agreement.
- D. The Director-General of the Department of Trade and Investment, Regional Infrastructure and Services has concurred in the Approval in accordance with clause 28 of the *Local Government (General) Regulation 2005*.
- E. The Approval does not operate until this Agreement has been executed by both parties.
- F. The parties enter this Agreement in consideration of the mutual promises contained herein.

## Operative Part

### 1. Definitions and interpretation

#### 1.1 In this Agreement, unless the context otherwise requires:

"**Act**" means the *Local Government Act 1993* (NSW).

"**Annexure**" means the annexure to this Agreement.

"**Annual Management Plan**" means the annual management plan of the Council, as adopted by the Council from time to time.

"**Applicant**" means the entity named as such in the Annexure.

"**Approval**" means the approval described in Recital C.

"**Council**" means the council named as such in the Annexure.

"**Liquid Trade Waste Services**" mean the making available by the Council of its sewerage system for connection to the Premises, for the purpose of discharge by the Applicant of its liquid trade waste.

"**Premises**" means the premises described in the Annexure.

**1.2 Unless the context otherwise requires:**

- (a) A reference to this Agreement is a reference to this Agreement, including the Annexure, as amended from time to time in accordance with its terms
- (b) A reference to the discharge of liquid trade waste means the discharge of liquid trade waste by the Applicant from the Premises to the Council's sewerage system
- (c) A reference to any legislation is a reference to such legislation as amended from time to time
- (d) Where the Applicant is comprised of more than one person, each obligation of the Applicant will bind those persons jointly and severally and will be enforceable against them jointly and severally.

**2. Liquid Trade Waste Services**

*The Council will provide the Liquid Trade Waste Services to the Applicant on the terms of this Agreement.*

**3. Additional conditions for discharge of liquid trade waste**

- 3.1 The Applicant may discharge liquid trade waste to the Council's sewerage system in accordance with the Approval and subject to this Agreement.
- 3.2 The Applicant must comply with all applicable Acts, regulations, by laws, proclamations and orders and with any lawful direction or order given by or for the Council or any other competent authority.
- 3.3 The Applicant must not discharge liquid trade waste contrary to this Agreement or the Approval or in any manner which may have an adverse effect on any person or property (including the sewerage system and the ecological system in the waters, land or area receiving sewage treatment works effluent or biosolids), or which may cause the Council to be in breach of any applicable Act, regulation, by law, proclamation or order or of any lawful direction given by or for any competent authority.
- 3.4 The Applicant must at its own cost monitor its discharges in accordance with the requirements set out in the Approval and must maintain records of such monitoring for inspection by the Council for such period as may be specified in the Approval.
- 3.5 The Council will carry out routine sampling and testing of the waste stream.
- 3.6 Where any flow-metering device is installed, the Applicant must at its own cost cause the device to be calibrated at least annually by a person or company approved by the Council. The Applicant must obtain a calibration certificate and provide a copy of the certificate to the Council within one month of receiving it.
- 3.7 If the Applicant is required to cease discharging liquid trade waste for any period, then the Applicant must cease discharging such waste for the period specified.

- 3.8 Where the Applicant ceases to discharge waste in the circumstances prescribed in clause 3.7, the Council may, at its discretion, elect to refund part of the annual trade waste fee on a pro rata basis, calculated according to the period of suspension.
- 3.9 If this Agreement is terminated, the Applicant must immediately cease to discharge liquid trade waste.

**4. Fees and charges**

- 4.1 In accordance with the section 560 of the *Local Government Act 1993*, Council will levy all water supply, sewerage and liquid trade waste fees and charges on the owner of the property.
- 4.2 In consideration of provision of the Liquid Trade Waste Services, the fees and charges as specified in the Council's Annual Management Plan and notified by Council to the owner and the Applicant must be paid to the Council, including fees for sampling and testing by Council in accordance with the Approval.
- 4.3 Fees and charges payable will include both non-residential sewerage charges and liquid trade waste fees and charges.
- 4.4 All monies payable to the Council must be paid within the time specified in the notice of charge.

**5. Term**

- 5.1 This Agreement will commence from the date it is signed on behalf of the Council, and will continue until the Applicant's Approval is revoked or the Applicant permanently ceases to discharge liquid trade waste pursuant to the Approval, whichever is the earlier. Upon such revocation or permanent cessation of the approved activity this Agreement shall automatically terminate by operation of this clause.
- 5.2 Termination of this Agreement is without prejudice to any accrued rights or obligations of either Party.

**6. Powers of the Council**

- 6.1 The Council may enter the Premises at a reasonable hour in the daytime or at any hour during which business is in progress or is usually carried on at the Premises for the purpose of conducting any inspection, examination, testing, monitoring or sampling to determine whether the Applicant is complying with the conditions of this Agreement.
- 6.2 The Applicant acknowledges that the Council has statutory powers available to it under the *Local Government Act 1993* and other Acts to issue orders and directions to the Applicant in relation to the discharge of liquid trade waste. The Applicant undertakes to comply with each such order or direction that may be notified by the Council to the Applicant within the time specified for compliance in that order or direction.
- 6.3 The Applicant releases the Council from any liability to the Applicant for any loss or damage due to the disruption of the Applicant's business arising out of the exercise of Council's rights pursuant to this clause.

**7. Information supplied by the Applicant**

- 7.1 The Applicant warrants that all information in its application for approval is true, complete and accurate to the best of its knowledge.
- 7.2 The Applicant must immediately notify the Council in writing of any error or omission in that information or any change to the information of which the Applicant becomes aware.
- 7.3 The Applicant must not provide any false or misleading information to the Council.

**8. Indemnity**

- 8.1 The Applicant indemnifies the Council from and against any claims, losses or expense (including legal costs on a solicitor and client basis) which the Council pays, suffers, incurs or is liable for as a result of:
  - (a) any unlawful, negligent, reckless or deliberately wrongful act or omission of the Applicant or its personnel or agents in connection with the discharge of liquid trade waste, including (without limitation) such acts or omissions which cause damage to property, personal injury or death
  - (b) a breach of this Agreement by the Applicant.
- 8.2 The Applicant's liability to indemnify the Council shall be reduced proportionally to the extent that any unlawful, negligent, reckless or deliberately wrongful act or omission of the Council caused or contributed to the liability or loss.

**9. Insurance**

The Applicant must effect and maintain for the term of this Agreement a public risk policy of insurance in the minimum of the sum specified in the Annexure and must, upon request by the Council, produce evidence of such insurance to the Council.

**10. Bond**

- 10.1 The Applicant must pay to the Council a bond in the sum specified in the Annexure.
- 10.2 The Council may at any time and without prior notice to the Applicant have recourse to the bond for the recovery of any sum due and owing by the Applicant to the Council.
- 10.3 Where the applicant fails to cease discharging trade waste as prescribed in clause 3.7, the Council may require the applicant to forfeit 50% of the bond.
- 10.4 The Council must return the bond to the Applicant, less any amount deducted by the Council under this clause, upon termination of this Agreement.

## **11. No assignment**

The Applicant may not assign or otherwise transfer its rights and/or obligations under this Agreement.

## **12. Notices**

- 12.1 A notice under this Agreement must be:
- (a) in writing, directed to the representative of the other party as specified in the Annexure
  - (b) forwarded to the address, facsimile number or the email address of that representative as specified in the Annexure or the address last notified by the intended recipient to the sender.
- 12.2 A notice under this Agreement will be deemed to be served:
- (a) in the case of delivery in person - when delivered to the recipient's address for service and a signature received as evidence of delivery
  - (b) in the case of delivery by post - within three business days of posting
  - (c) in the case of delivery by facsimile—at the time of dispatch if the sender receives a transmission report which confirms that the facsimile was sent in its entirety to the facsimile number of the recipient
  - (d) in the case of delivery by email, on receipt of confirmation by the recipient that the recipient has received the email.
- 12.3 Notwithstanding the preceding clause 12.2, if delivery or receipt of a communication is on a day which is not a business day in the place to which the communication is sent or is later than 5 pm (local time in that place) it will be deemed to have been duly given or made at 9 am (local time at that place) on the next business day in that place.

## **13. Variation**

- 13.1 If the Applicant's Approval to discharge liquid trade waste from the Premises is varied, this Agreement shall be deemed to be varied in accordance with the variation made to that approval or to the fees, by operation of this clause.
- 13.2 In addition to automatic variation under clause 13.1, this Agreement may be varied by written agreement of the parties, provided that a variation to this Agreement that is inconsistent with:
- (a) the Approval, including rights granted under, and conditions attached to, the Approval
  - (b) any applicable legislation; or
  - (c) Council's Annual Management Plan in respect of applicable fees and charges, shall have no force or effect.



**14. Severability**

If any part of this Agreement is prohibited, void, voidable, illegal or unenforceable, then that part is severed from this Agreement but without affecting the continued operation, so far as possible, of the remainder of this Agreement.

**15. Applicable law**

- 15.1 This Agreement is governed by, and must be construed in accordance with, the laws in force in the State of New South Wales.
- 15.2 Each party submits to the exclusive jurisdiction of the courts exercising jurisdiction in the State of New South Wales and the courts of appeal there from.

**16. Rights cumulative**

The rights and remedies provided under this Agreement are in addition to, and not exclusive of, any other rights or remedies provided by law.

**Executed as an agreement**

**Execution by the Council:**

**THE COMMON SEAL OF**

(Corporate Seal)

..... was affixed this .....day of  
..... 20.....

in the presence of:

.....

General Manager

(Signature of General Manager)

and

.....

[print name of witness]

(Signature of witness)

**Executed by the Applicant (corporate entity):**

**THE COMMON SEAL OF**

..... PTY LIMITED

was affixed this .....day of ..... 20..... in  
the presence of:

.....

[name of Director]

(Signature of Director)

.....

[name of Director/Secretary]

(Signature of Director/Secretary)

**Executed by the Applicant (individual):**

Signed by:.....

[print name of applicant]

(Signature of Applicant)

This .....day of ..... 20..... in the  
presence of:

.....

[print name of Witness]

(Signature of Witness)

## ANNEXURE

### A. The Council

1 Full Name of Council	
2 ABN	
3 Address	
4 Telephone	
5 Emergency Contact	
Telephone	

### B. The Applicant

1 Full Name of Applicant	
2 ABN	
3 Business or Trading Name	
4 Address	
5 Telephone	
6 Emergency Contact	
Telephone	

**C. The Premises**

1 Lot and DP Number:	Lot(s)		DP	
2 Location				
3 Description				
4 Nature of Business				

**D. Notices**

Applicant's Representative	
Postal Address	
Facsimile	
Email	
Council's Representative	
Postal Address	
Facsimile	
Email	

**E. Public Liability Insurance**

Minimum Cover:	\$
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**F. Bond**

Bond:	\$
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## ATTACHMENT 2

### PROVISIONS IN THE *LOCAL GOVERNMENT (GENERAL) REGULATION 2005* IN REGARD TO ACCEPTANCE OF LIQUID TRADE WASTE INTO THE SEWERAGE SYSTEM

#### Clause 25 Matters to accompany applications relating to discharge into sewers

An application for approval to discharge trade waste into a sewer under the control of a Council or that connects with such a sewer must be accompanied by the information required by Table 1 to the Liquid Trade Waste Management Guidelines#.

#### Clause 28 Approval to discharge waste into sewers: concurrence required

A council must not grant an approval under section 68 of the Act to discharge trade waste (whether treated or not) into a sewer of the council unless the Director-General of the Department of Energy, Utilities and Sustainability\* has concurred with the approval.

Note: Section 90 (2) of the Act permits any person or authority whose concurrence is required before an approval can be granted to give the council notice that the concurrence may be assumed (with such qualifications or conditions as are specified in the notice).

#### Clause 32 Disposal of trade waste

(1) An approval to dispose of trade waste into a sewer of the council is subject to such conditions (if any) as the council specifies in the approval.

(2) In imposing any such conditions, the council is to have regard to the matter set out in Table 5 to the Liquid Trade Waste Management Guidelines#.

#### Clause 159 Prevention of waste and misuse of water

The owner, occupier or manager of premises to which water is supplied by the council must:

(a) prevent waste of water by taking prompt action to repair leaking taps, pipes or fittings located on the premises

(b) take any other action that is reasonable to prevent waste and misuse of water.

# "Liquid Trade Waste Management Guidelines" means the Guidelines of that name produced by the Department of Energy, Utilities and Sustainability in March 2005, as in force from time to time. The 2005 Guidelines have now been superseded by *Liquid Trade Waste Regulation Guidelines*, April 2009.

\* From 27 July 2009 a reference to the Director-General of the Department of Energy, Utilities and Sustainability is to be construed as a reference to the Director-General of the Department of Environment, Climate Change and Water.

End of Policy

<b>Adopted:</b>	<b>Date:10/12/2007</b>	<b>Minute:07/316</b>
<b>Lasted Reviewed:</b>	<b>Date: 10/10/2011</b>	<b>Minute:1110/025</b>
	<b>12/11/2012</b>	<b>1211/014</b>
	<b>16/07/2018</b>	
<b>Next Reviewed:</b>	<b>Date: 19/04/2021</b>	

#### Minor Amendments:

Date	Description
07/02/2013	Minor typographical errors as advised by NSW Office of Water (Ref:367438)
12/03/2013	Minor typographical errors as advised by NSW Office of Water (Ref:Email:26/02/13)





## Vandalism Policy

<b>Policy</b>	28A
<b>Officer Responsible</b>	Director Infrastructure Services
<b>Last Review Date</b>	16/07/2018

### Strategic Policy

## **Policy**

- ~~a. That Blayney Shire Council offer a reward for information leading to the conviction of person or persons involved in the vandalism of Council assets, in particular, street signs, Council buildings and the destruction of street trees in Adelaide Street, Blayney.~~
- ~~b. That the value of the reward be up to \$2,000.~~

## **Purpose**

To minimise the unsightliness and cost of graffiti and intentional damage to Council and the community.

To engage community support in the prompt reporting of graffiti and intentional damage as soon as practicably possible, after identification of an offence.

The policy provides for a reward where information regarding an offence results in the conviction of an offender.

## **Objectives**

The objectives of this policy are to:-

- Reduce acts of vandalism and intentional damage to public and commercial/retail property in the Blayney Shire local government area.
- Encourage the public to report acts of vandalism and intentional damage.
- Provide for a reward where information regarding an offence results in the conviction of an offender.

## **Policy**

### **Principles**

Any person who witnesses, or has information regarding an act of graffiti or intentional damage should in the first instance report the matter through the NSW Police Force Community Portal or other NSW Police Force Channel or contact the Police Assistance Line (13 14 44).

Any person who witnesses graffiti or intentional damage to Blayney Shire Council property should also report the matter to Council Customer Service staff, either by attending Council offices, via email, or phone.

Information provided shall be in accordance with NSW Police Force requirements, and as a minimum include:-

- Time of incident
- Place of incident
- Description of damage
- Possible offender's details
- Photographs



The NSW Police Force will examine the information and may investigate the offence. Should an offender be identified, and either admit guilt or be found guilty, the informant should then write to Council seeking payment of the reward.

Council will, where appropriate, seek compensation for graffiti and intentional damage offences where an offender has been identified and admitted, or been found guilty.

#### Rewards

Council will offer a reward on a graduated scale, for information provided by the public leading to the conviction of a person or persons involved in graffiti or intentional damage to Council property. The scale is as follows:-

Category	Damage Amount	Reward
1	Up to \$2,500	\$500
2	\$2,500 - \$10,000	\$1,000
3	\$10,000 and above	\$2,000

#### Responsibilities

Determination of the reward will be at the absolute discretion of the General Manager.

Persons providing information may be required to appear in a Court to provide evidence where required.

#### Related Legislation

##### Graffiti Control Act 2008

The Graffiti Control Act 2008 deals directly with graffiti specific offences, which encompasses intentional damage to property and the possession and sale of spray cans. Powers granted to LGAs to manage graffiti vandalism is detailed at Part 4 of the Act.

##### Blayney Shire Council Community Strategic Plan 2018/2028

The Blayney Shire Community Strategic Plan 2018/2028 is the community's 10-year vision for the Shire. It aims to protect the features and qualities that make the Blayney Shire a great place to live, as well to enable communities which are strong and well connected. Graffiti and intentional damage has the potential to impact its strategic priorities of: Maintain and Improve Public Infrastructure and Services, Build the Capacity and Capability of Local Governance and Finance, Promote Blayney Shire to grow the Local and Visitor Economy, Enhance facilities and networks that supports Community, Sport, Heritage and Culture and Protect our Natural Environment.

End of Policy

	<b>Date</b>	<b>Minute</b>
<b>Adopted:</b>	<b>13/03/1997</b>	<b>134</b>
<b>Lasted Reviewed:</b>	<b>13/11/2006</b>	<b>06/281</b>
	<b>14/05/2007</b>	<b>07/094</b>
	<b>12/11/2012</b>	<b>1211/014</b>
	<b>16/07/2018</b>	
<b>Next Reviewed:</b>	<b>19/04/2021</b>	



## **Signs as Remote Supervision Policy**

<b>Policy</b>	26D
<b>Officer Responsible</b>	Manager Infrastructure
<b>Last Review Date</b>	16/07/2018

### **Strategic Policy**

## Policy

- ~~1. Council will adopt the Statewide "Signs as Remote Supervision Best Practice Manual" as the process for the assessment, selection and placement of signs at Centrepont Sport and Leisure Centre, parks and reserves. Such signage shall be used to direct, advise or warn the public of inherent dangers in the environment in which they are operating.~~
- ~~2. Council may refer to other documents for style and layout of its signs.~~
- ~~3. A regular inspection program of Council's remote supervision signage shall be included in risk inspections by Council staff.~~
- ~~4. When Council becomes aware of potential risk, endeavour to follow the order of risk control principals to:~~
  - ~~• Eliminate the risk~~
  - ~~• Reduce the risk~~
  - ~~• Accept the risk~~

### ~~Using signs as remote supervision~~

- ~~5. Signs in existence not meeting the current best practice and/or Australian Standards shall be replaced as funds permit in priority order based on hazards and public usage of the respective areas and the rating formula detailed in the manual.~~

1. Users of Blayney Shire Council's owned, operated or controlled land are exposed to varying degrees of risk associated with the use of the land. The risk comes from the hazards which exist on the land: both natural hazards, and hazards related to developed facilities. The law says that if it is "reasonably foreseeable" that a person might suffer some sort of loss or harm because of something someone else does, then that person is owed a Duty of Care. It is desirable for Blayney Shire Council to provide a warning to users of the land about the nature of any hazards, to exercise its Duty of Care.

The Blayney Shire Council supports this methodology through Community Consultation Committees and through the development of the strategic plan of the Blayney Shire Community. Signs as remote supervision are supported through other operational related policies.

2. Council has adopted the Blayney Best Practice Guide for Signs as Remote Supervision as the process for the assessment, selection and placement of signs at Blayney Shire Council facilities. Such signage shall be used to direct, advise or warn the public of inherent dangers in the environment in which they are operating.

The implementation of this policy is set out in the Blayney Best Practice

Guide for Signs as Remote Supervision.

3. The Blayney Best Practice Guide for Signs as Remote Supervision will identify Blayney Shire Council's facilities. The Manager Infrastructure will site risk audit Pools, Parks/Reserves, Skate parks and BMX facilities once a year. The information from the site risk audits will be entered into Council's asset management system with the condition and appropriateness of each sign.
4. The Blayney Best Practice Guide for Signs as Remote Supervision will apply to Blayney Shire Council's facilities, Pools, Parks/Reserves, Skate/BMX parks or elsewhere that it is identified that the Council is in control of the asset. Blayney Shire Council's Infrastructure will conduct site risk audits on these facilities for appropriateness of using Signs as Remote Supervision. The information from the site risk audits will be entered into Council's asset management system describing the location, condition and appropriateness of each sign.
5. This Policy has been developed taking into account the principles of AS/NZ 4360 – 2005 Risk Management Standard and Statewide Mutual's Best Practice Manual, Signs As Remote Supervision (Version 7, Oct 2011) with a view to limiting Council's (i.e. the community's) exposure to potential litigation claims.
6. To bring Blayney Shire Council's signs up to best practice, signs in existence not meeting the current Blayney Best Practice Guide for Signs as Remote Supervision and/or Australian Standards shall be replaced as funds permit based on a priority order.
7. Council may refer to other documents for style, layout and regulatory requirements relating to the use of signs in specific circumstances, for example: Roads Maritime Service for roadside signage.
8. A regular inspection program of Blayney Shire Council's remote supervision signage shall be included in risk inspections by Council staff.
9. When Blayney Shire Council becomes aware of a potential risk, it will endeavor to follow the hierarchal order of risk control principals ie:
  - Eliminate the risk
  - Reduce the risk
  - Accept the risk, using signs as remote supervision where possible.

End of Policy

	Date	Minute No.
Adopted:	17/06/2013	1306/011
Last Reviewed:	17/06/2013	1306/011
	16/07/2018	
Next Reviewed:	19/04/2021	



## **PLANNING PROPOSAL TO BLAYNEY SHIRE COUNCIL**

### **CADIA BIODIVERSITY OFFSET AREAS**



### **CADIA VALLEY OPERATIONS**

APRIL 2018

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## Introduction

### overview

The purpose of this report is to support a request to rezone two areas of land generally to the south of the Cadia Valley Operations by amending Blayney Local Environmental Plan 2012 (BLEP2012). This will satisfy, in part, the requirements for implementing a conservation offset strategy under condition 41 schedule 3 of the Cadia East Project Approval (CEPA) as specifically modified in modification 7 approved by the delegate to The Minister for Planning on 4 August 2015.

Condition 41, schedule 3 of CEPA as amended reads as follows:

#### Landscape Management Plan

41. The Proponent shall prepare and implement a Landscape Management Plan for the project to the satisfaction of the Secretary. This plan must:
- (a) be prepared in consultation with OEH, DPI Water and the Councils, and be submitted to the Secretary within 18 months of the date of this approval;
  - (b) include:
    - (i) the rehabilitation objectives for the site and offset areas;
    - (ii) a description of the short, medium, and long term measures that would be implemented to:
      - rehabilitate the site in accordance with the Rehabilitation Strategy (see condition 36);
      - implement the offset strategy; and
      - manage the remnant vegetation and habitat on the site and in the offset areas;
    - (iii) detailed performance and completion criteria for the site rehabilitation and implementation of the offset strategy;
    - (iv) a detailed description of the measures that would be implemented over the next 3 years, including the procedures to be implemented for:
      - progressively rehabilitating disturbed areas;
      - implementing revegetation and regeneration within the disturbance areas and offset areas, including establishment of canopy, sub-canopy (if relevant), understorey and ground strata;
      - investigating ways to salvage and beneficially use resources in areas subject to subsidence (including timber, fauna habitat, seed and soil resources);
      - protecting vegetation and soil outside the disturbance areas;
      - rehabilitating creeks and drainage lines on the site (both inside and outside the disturbance areas);
      - managing potential acid forming material (including ensuring effective isolation of potential acid forming material in rock dumps);
      - managing salinity;
      - conserving and reusing topsoil;
      - undertaking pre-clearance surveys;
      - managing impacts on terrestrial and aquatic fauna (including a Squirrel Glider conservation strategy);
      - landscaping the site to minimise visual impacts;
      - collecting and propagating seed for rehabilitation works;
      - salvaging and reusing material from the site for habitat enhancement;
      - controlling weeds and feral pests, including terrestrial and aquatic species;
      - managing grazing and agriculture on site;
      - controlling access;
      - bushfire management;
      - managing and minimising any potential adverse impacts associated with the final voids; and
      - managing and minimising any adverse socio-economic effects associated with mine closure;

- (v) a program to monitor the effectiveness of these measures, and progress against the performance and completion criteria;
- (vi) a description of the potential risks to successful rehabilitation and/or revegetation, and a description of the contingency measures that would be implemented to mitigate these risks; and
- (vii) details of who would be responsible for monitoring, reviewing, and implementing the plan.

Condition 41(b)(ii) above requires a description of measures that would be implemented to implement the offset strategy. The *CVO Land and Biodiversity (Landscape) Management Plan* (L&BMP) references a number of measures in the offset strategy, including proposed actions for the rezoning consideration of the offset areas to *E2 Environmental Conservation*. An extract of the L&BMP relating to the implementation of the offset strategy, including rezoning is included in Appendix B.

Blayney Council is the Planning Proposal Authority (PPA) for this proposal by virtue of Section 3.32 of the Environmental Planning & Assessment Act 1979 (The Act.)

This Planning Proposal report is accordingly submitted to Blayney Council in its role as the PPA to consider resolving to rezone the land in accordance with the requirements of the Environmental The Act. The Gateway Determination from NSW Planning will outline any additional information, studies and consultations required.

The report seeks an amendment to BLEP2012 to reflect the offset requirements under the Cadia East Project Approval.

This Planning Proposal has been prepared in accordance with the Department of Planning and Environment's advisory document *A Guide to Preparing Planning Proposals* issued in accordance with former section 55(3) [now 3.33(3)] of The Act. Generally consistent with Section 3.33(2) of the Act, the Guide requires the Planning Proposal to address the following:

- **Part 1** – A statement of the **Objectives or Intended Outcomes** of the proposed LEP;
- **Part 2** – An **Explanation of the Provisions** that are to be included in the proposed LEP;
- **Part 3** – The **Justification** for those objectives, outcomes and provisions and the process for their implementation;
- **Part 4** – **Mapping**;
- **Part 5** – Details of the **Community Consultation** that is to be undertaken on the Planning Proposal.
- **Part 6** – **Project Timeline**

The Secretary of the Department of Planning and Environment has, under former Section 55 (3) of the EP&A Act, issued requirements regarding specific matters that must be addressed in the **Justification** for the planning proposal and requires a project timeline to detail the anticipated timeframe for the plan making process for each planning proposal (Part 6.)

## LOCATION OF SUBJECT LAND

The two subject areas are located generally south of the Cadia Valley Operations between Panuara Road and the Belubula River (as circled in blue in Figure 1).



Figure 1 Locations of "Stratton Vale" and "Flyers Creek - Belubula River" offset areas

## **SITE DESCRIPTION**

The land proposed to be the subject of an amendment to Blayney Local Environmental Plan 2012 comprises:

“Stratton Vale”

Proposed Lot 202 in the subdivision of Lot 201 DP 1037198 Parish of Carlton as shown in survey plan reference 21175A prepared by Glyndwr Carpenter of Carpenter Collins and Craig dated 8 June 2016

“Flyers Creek – Belubula River”

Proposed Lot 204 in the subdivision of Lot 1422 DP 1168271 Parish of Blake as shown in survey plan reference 21175B prepared by Timothy Collins of Carpenter Collins and Craig dated 22 November 2016.

The subject areas are owned by Cadia Holdings Pty Limited and Contango Agricultural Company Pty Ltd, being wholly owned subsidiaries of Newcrest Mining Limited. Proposed survey plans are reproduced in Appendix A

## Part 1 Objectives or Intended Outcomes

The objectives or intended outcomes of this Planning Proposal are to rezone the two subject sites to provide for environmental conservation in association with the Cadia East Project.

The objectives or intended outcomes of this Planning Proposal would be achieved by:

- Amending *Blayney Local Environmental Plan 2012* to include reference to Zone E2 Environmental Conservation in section 2.1 *land use zones*;
- Amending *Blayney Local Environmental Plan 2012*. to insert Zone E2 Environmental Conservation provisions at the end of the Land Use Table;
- Adding reference to zone E2 Environmental Conservation to the Land Zoning Map; and
- Rezoning the subject land from RU1 Primary Production to Zone E2 Environmental Conservation under *Blayney Local Environmental Plan 2012*.

## Part 2 Explanation of Provisions

It is proposed by this submission to rezone the lands under BLEP2012 to Zone E2 Environmental Conservation. The following provisions are proposed to amend Blayney Local Environmental Plan 2012 by:

1. Adding reference to *Zone E2 Environmental Conservation* to Part 2.1 Land Use Zones;
2. Adding the following to the Land Use Table after the reference to Zone RE2 Private Recreation:

### **Zone E2 Environmental Conservation**

#### **1 Objectives of zone**

- To protect, manage and restore areas of high ecological, scientific, cultural or aesthetic values.
- To prevent development that could destroy, damage or otherwise have an adverse effect on those values.

#### **2 Permitted Without Consent**

Environmental protection works

#### **3 Permitted With Consent**

Environmental facilities; Flood mitigation works; Roads

#### **4 Prohibited**

Business premises; Hotel or motel accommodation; Industries; Multi dwelling housing; Recreation facilities (major); Residential flat buildings; Restricted premises; Retail premises; Seniors housing; Service stations; Warehouse or distribution centres; Any other development not specified in item 2 or 3

3. Amending the Land Zoning Map in respect to the two subject lands in accordance with the proposed zoning map shown as Figure 3 in Part 4 below.

## Part 3 Justification

### Section A – Need for the planning proposal

**Q1. Is the planning proposal a result of any strategic study or report?**

The planning proposal stems from Cadia East Project Modification 7 which was approved by the Minister for Planning's delegate on 4 August 2015.

**Q2. Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?**

The planning proposal forms one of a number of associated measures to ensure the long-term security of conservation offsets required for the Cadia East Project

### Section B – Relationship to strategic planning framework.

**Q3. Is the planning proposal consistent with the objectives and actions of the applicable regional, sub-regional or district plan or strategy (including any exhibited draft plans or strategies)?**

The *Central West and Orana Regional Plan 2036* was released in June 2017. Direction 13 of the Regional Plan to protect and manage environmental assets states that:

*The region supports environmental assets and native vegetation communities, many of which are protected through existing legislation. Protecting these values is important for communities and the economic and environmental wellbeing of the region.*

The regional plan identifies areas of high environmental value in Figure 7 – *Environmental Assets*.

The subject lands are identified as containing high environmental value. This planning proposal is consistent with the Regional Plan's proposed action 13.1 to "protect high environmental value assets through local environmental plans."

**Q4. Is the planning proposal consistent with a council's local strategy or other local strategic plan?**

The *Councils of Blayney Cabonne and Orange City Sub-Regional Rural and Industrial Land Use Strategy* was adopted by Blayney Shire Council in 2010. The Department of Planning & Infrastructure endorsed the strategy on 30 June 2011.

This Sub-Regional Strategy relates to the rural and industrial areas of Blayney Shire. It provides land use recommendations for:

- Agriculture
- Industry
- Residential and rural subdivision

- Natural and scenic environment
- Heritage and culture

The natural and scenic environment recommendations of the Sub-Regional strategy have relevance to this planning proposal.

Section 3.4 of the Sub-Regional Strategy in relation to the natural environment states that:

*The natural environment provides the basis for the Sub-Region's important agricultural industries and their viability depends on maintaining the natural resource base.*

*Environmental protection zoning could be used to identify, protect and conserve environmentally sensitive lands and their high conservation values.*

*Provision of suitable buffers to development is critical in facilitating appropriate outcomes for natural resources, including groundwater, surface water, remnant vegetation and riparian corridors.*

The guiding principles for the Sub-Regional Strategy include the following:

Ensure areas of environmental and cultural significance are protected and that land use and development within the Sub-Region is environmentally sustainable.

There are no strategic development areas identified in the Sub-Regional Strategy that are located in, or near, the areas the subject of this planning proposal.

The planning proposal is consistent with *the Councils of Blayney Cabonne and Orange City Sub-Regional Rural and Industrial Land Use strategy*.

***Q5. Is the planning proposal consistent with applicable State Environmental Planning Policies?***

State Environmental Planning Policy (Rural Lands) 2008 is the only State Environmental Planning Policy which may have relevance to this planning proposal.

Section 7 of State Environmental Planning Policy (Rural Lands) 2008 includes the following Rural Planning Principle:

... (e) the identification and protection of natural resources, having regard to maintaining biodiversity, the protection of native vegetation, the importance of water resources and avoiding constrained land,

This planning proposal is consistent with the rural planning principles of State Environmental Planning Policy (Rural Lands) 2008.

***Q6. Is the planning proposal consistent with applicable Ministerial Directions (s.117 directions)?***

This planning proposal relates to s117 Direction 2.1 *Environment Protection Zones* issued 1 July 2009.

The objective of s117 Direction 2.1 *Environment Protection Zones* is to protect and conserve environmentally sensitive areas.



Subsection (4) of the Direction states that a planning proposal must include provisions that facilitate the protection and conservation of environmentally sensitive areas.

This planning proposal is consistent with the Direction.

### **Section C – Environmental, social and economic impact**

***Q7. Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?***

The planning proposal will enhance the quality of ecological communities through conservation measures.

***Q8. Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?***

The management of the Cadia East offset areas is addressed in the Landscape Management Plan approved by the Department of Planning and Environment and Environment Australia. There are measures to manage environmental weeds and pests within the CVO Land and Biodiversity (Landscape) Management Plan [L&BMP].

The CVO Land and Biodiversity (Landscape) Management Plan can be found in full here:

[http://www.cadiavalley.com.au/client\\_images/1934183.pdf](http://www.cadiavalley.com.au/client_images/1934183.pdf)

Section 9 of the CVO Land and Biodiversity (Landscape) Management Plan relates specifically to the Conservation Offsets, which is included in Appendix B to this planning proposal.

There are no other environmental effects as a result of the planning proposal.

***Q9. Has the planning proposal adequately addressed any social and economic effects?***

Socio-economic effects were addressed in the Cadia East Environmental Assessment in 2009.

The Conservation offset areas are required to be maintained in perpetuity and accordingly natural assets will be conserved over the long term to the benefit of the community.

### **Section D – State and Commonwealth interests**

***Q10. Is there adequate public infrastructure for the planning proposal?***

Access to the conservation areas for management and maintenance is available via Panuara Road which is adequate.

***Q11. What are the views of state and Commonwealth public authorities consulted in accordance with the Gateway determination?***

The current version of the CVO Land and Biodiversity (Landscape) Management Plan was approved by the Australian Government's Department of Environment and Energy on 20 December 2016 and by the NSW Department of Planning and Environment on 30 May 2017.

The zoning of the subject land for environmental conservation as approved by the State and Commonwealth Departments is identified as a proposed action in the L&BMP which states that:

“Submission of Flyers Creek and Stratton Vale offset areas following subdivision plan finalisation of these two areas to Blayney Council for rezoning consideration to Zone E2 *Environmental Conservation*.”

Cadia East Project Modification 7 was referred to the Office of Environment and Heritage (OEH), Orange City Council, Cabonne Council and Blayney Council.

None of the Councils objected to the proposed modification.

The Department of Planning and Environment’s assessment report regarding Modification 7 stated that:

“OEH is satisfied that the revised offset strategy is adequate although it recommended that Cadia be required to develop a Biodiversity Management Plan to improve the relatively poor condition of the native vegetation on the Stratton Vale offset site.”

Measures to improve the condition of native vegetation within the offset areas are incorporated in the L&BMP.

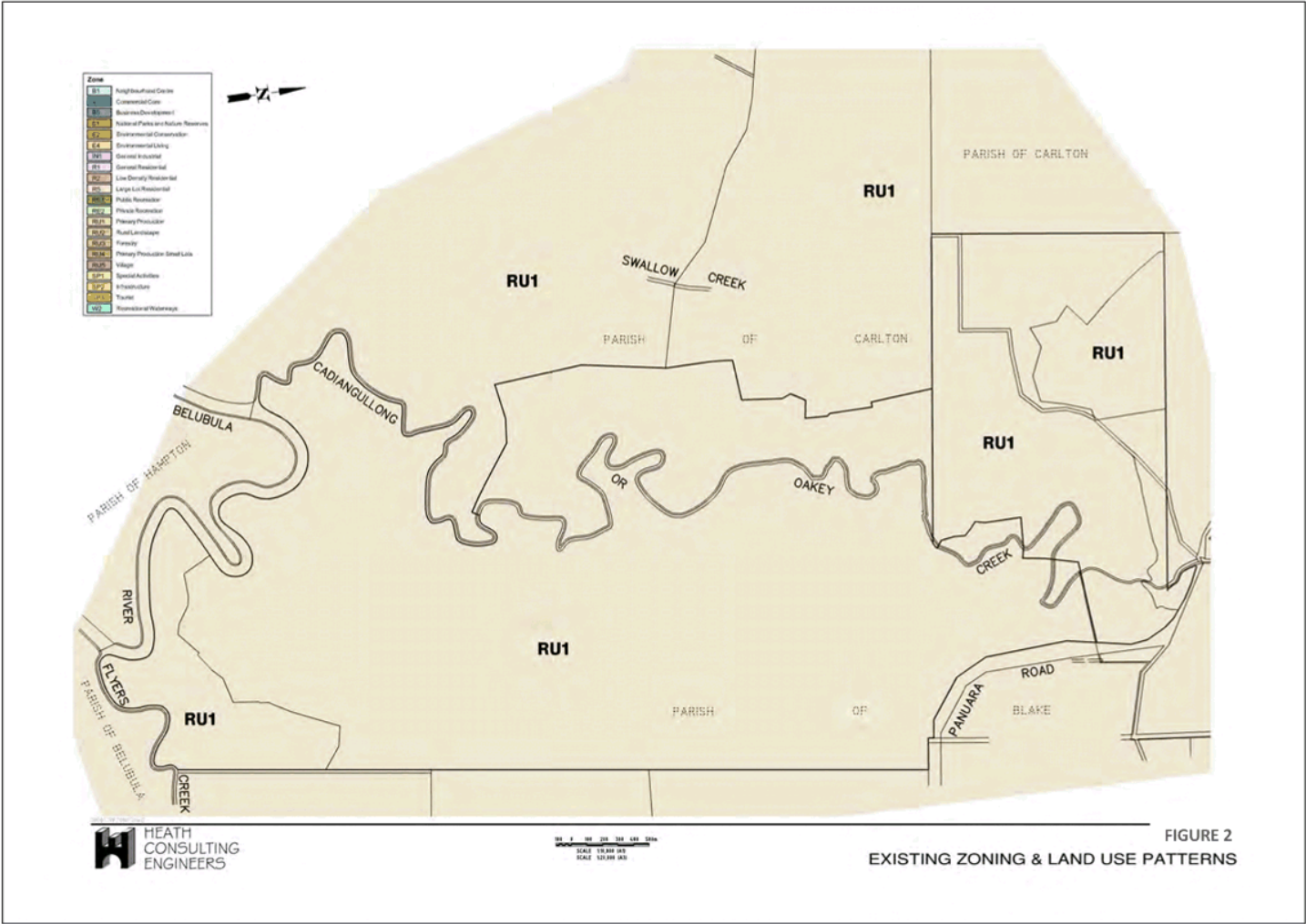
The Environmental Assessment report for the CVO Biodiversity Offset Modification is reproduced in Appendix C. The Department of Planning and Environment’s assessment report for *Cadia East Project Modification 7* can be found at:

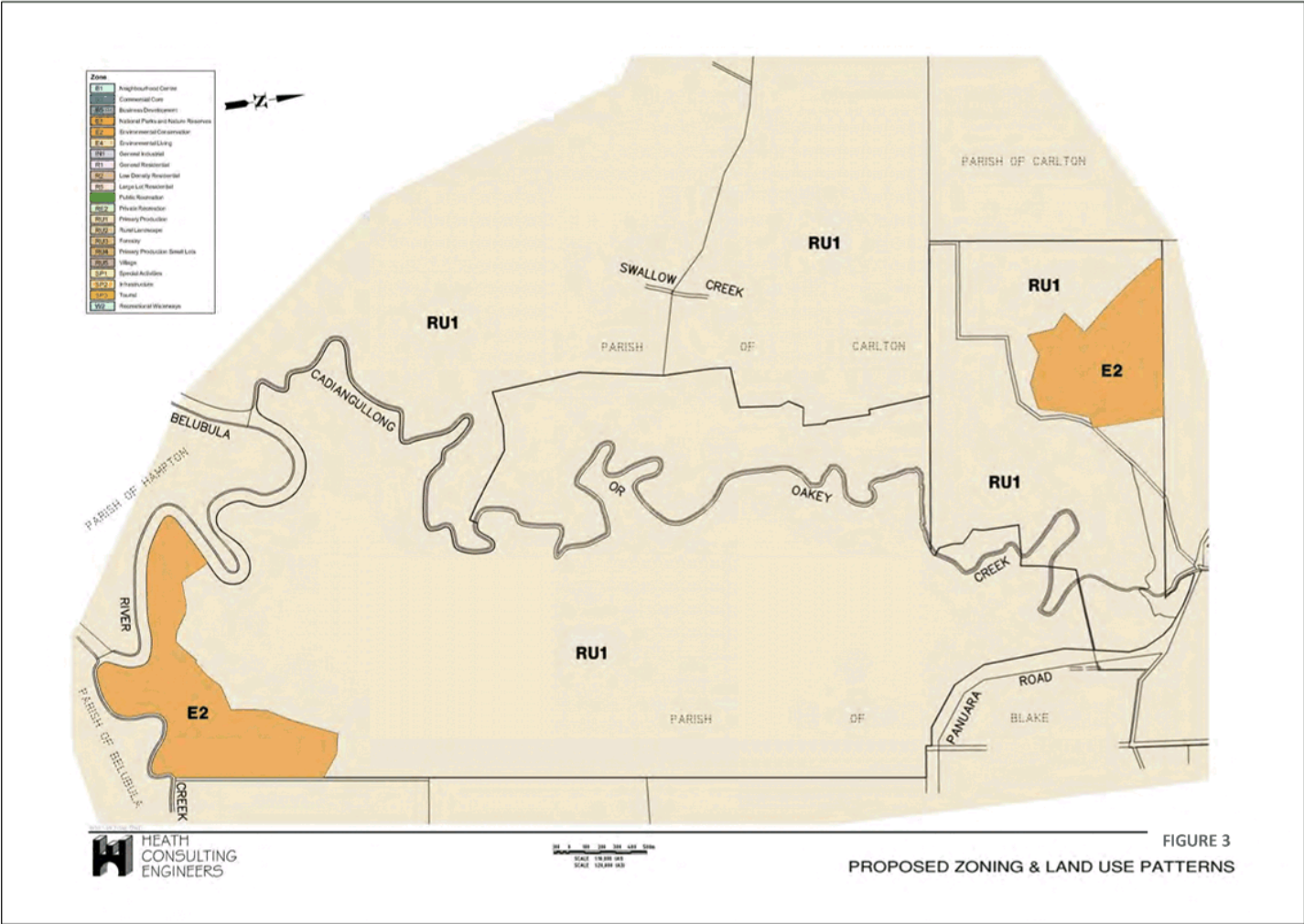
<https://majorprojects.accelo.com/public/4e543078ce199b08a0d8970dd9af5b58/20150804%20Cadia%20East%20Mod%207%20report.pdf>

## Part 4. Mapping

The existing and proposed land use zoning under Blayney Local Environmental Plan 2012 are presented below in Figures 2 and 3 respectively.

The offset areas as included in Cadia East Project Approval 06\_0295 as modified are included in Appendix A. The survey plans for the two subject offset areas are also provided in Appendix A.





## Part 5. Community Consultation

CHPL consulted with the NSW Department of Planning and Environment (DP&E) and the Commonwealth Department of the Environment (DotE) with regard to the proposed Project Modification for the subject biodiversity offset areas in February 2015.

The Department of Planning and Environment also referred the application to the Office of Environment and Heritage (OEH), Orange City Council, Cabonne Council and Blayney Council for comment in 2015.

The Councils did not object to the proposal.

OEH was satisfied that the revised offset strategy was adequate although it recommended that Cadia be required to develop a Biodiversity Management Plan to improve the relatively poor condition of the native vegetation on the Stratton Vale offset site. The offset management strategy in the Cadia land and Biodiversity Management Plan is contained in section 9 of the Plan, and which is included in Appendix B.

The Planning Proposal will be subject to public exhibition and agency consultation as part of the Gateway process. The Gateway determination will specify the community consultation that must be undertaken on the Planning Proposal.

This Planning Proposal is a minor proposal for the following reasons:

- This Planning Proposal provides information to demonstrate that it is consistent with the strategic planning framework.
- Issues pertaining to infrastructure servicing (i.e. road access) are not significant and can be adequately addressed.
- The Planning Proposal is not for a principal LEP.
- The Planning Proposal does not seek to reclassify public land.

Community consultation would involve:

- An exhibition period of 28 days.
- The community is to be notified of the commencement of the exhibition period via a notice in the local newspaper and on Council's website. The notice will:
  - Give a brief description of the objectives or intended outcomes of the planning proposal;
  - Indicate the land affected by the planning proposal;
  - State where and when the planning proposal can be inspected;
  - Provide the name and address for the receipt of submissions; and
  - Indicate the closing date for submissions.
- Written notification to land owners in the vicinity.

During the exhibition period, it is expected that Council would make the following material available for inspection:

- The planning proposal in the form approved for community consultation by the Secretary of the Department of Planning and Environment;
- Any studies (if required) relied upon by the planning proposal.

Electronic copies of relevant exhibition documentation will be made available to the community upon request, free of charge. At the conclusion of the notification and public exhibition period Council staff will consider submissions made in respect of the Planning Proposal and prepare a report to Council.

## Conclusion

This Planning Proposal is appropriate for support due to the following:

- It accords with the Cadia East Project Approval 06\_0295 as modified (Mod 7) in relation to the securing of biodiversity offsets
- It is consistent with the measures established in the Cadia Land and Biodiversity Management Plan (Version 3 - 15/05/2017) for securing biodiversity areas as approved by the Department of Planning and Environment.
- The information presented in Part 3 above reinforces the consistency of the proposal with the *Sub-Regional Rural and Industrial Land Use Strategy July 2008* and the *Central West and Orana Regional Plan 2036*.



**Andrew Wannan**  
**Approvals Manager**  
**Cadia Valley Operations**



## **Appendix A**

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PLAN SET

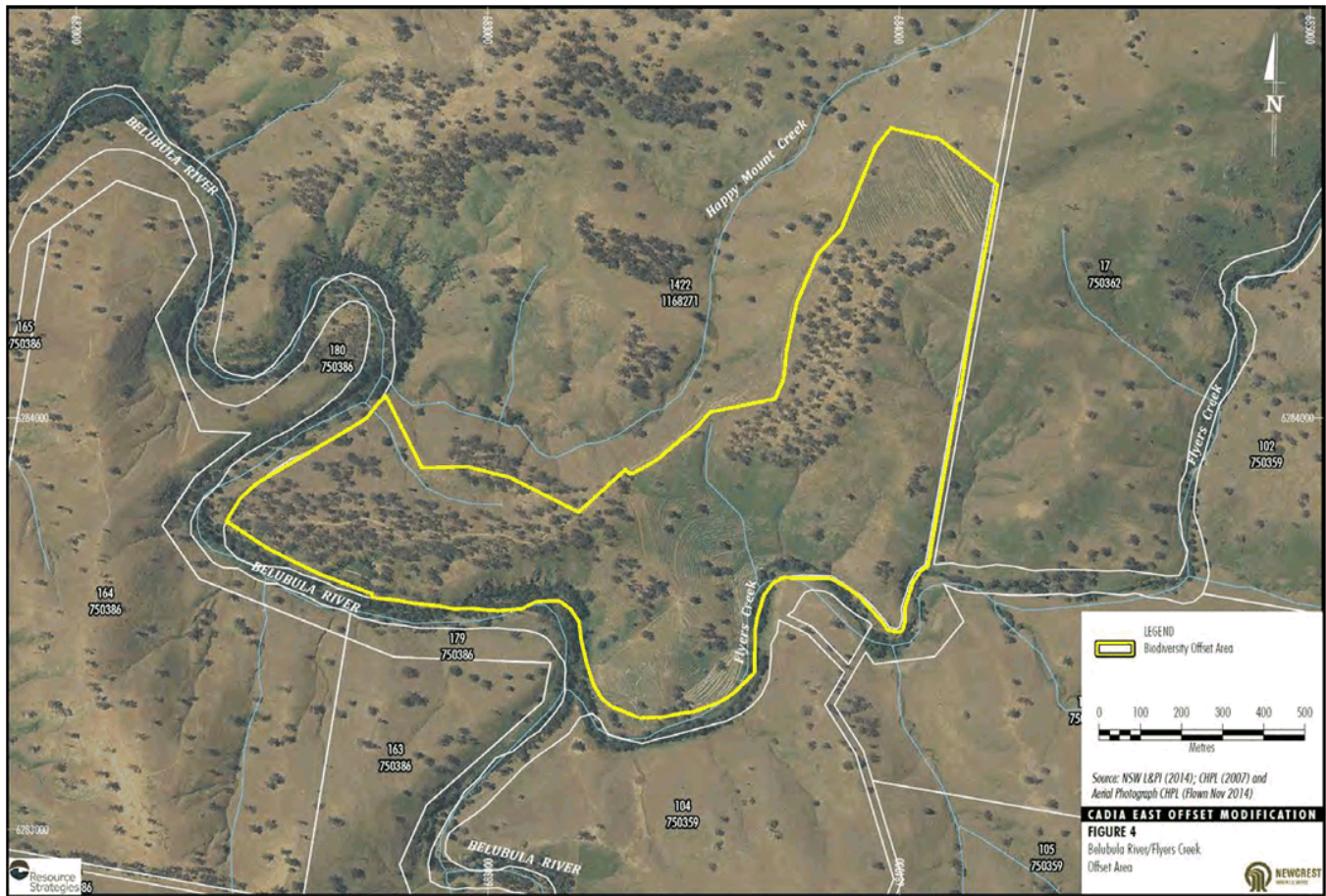
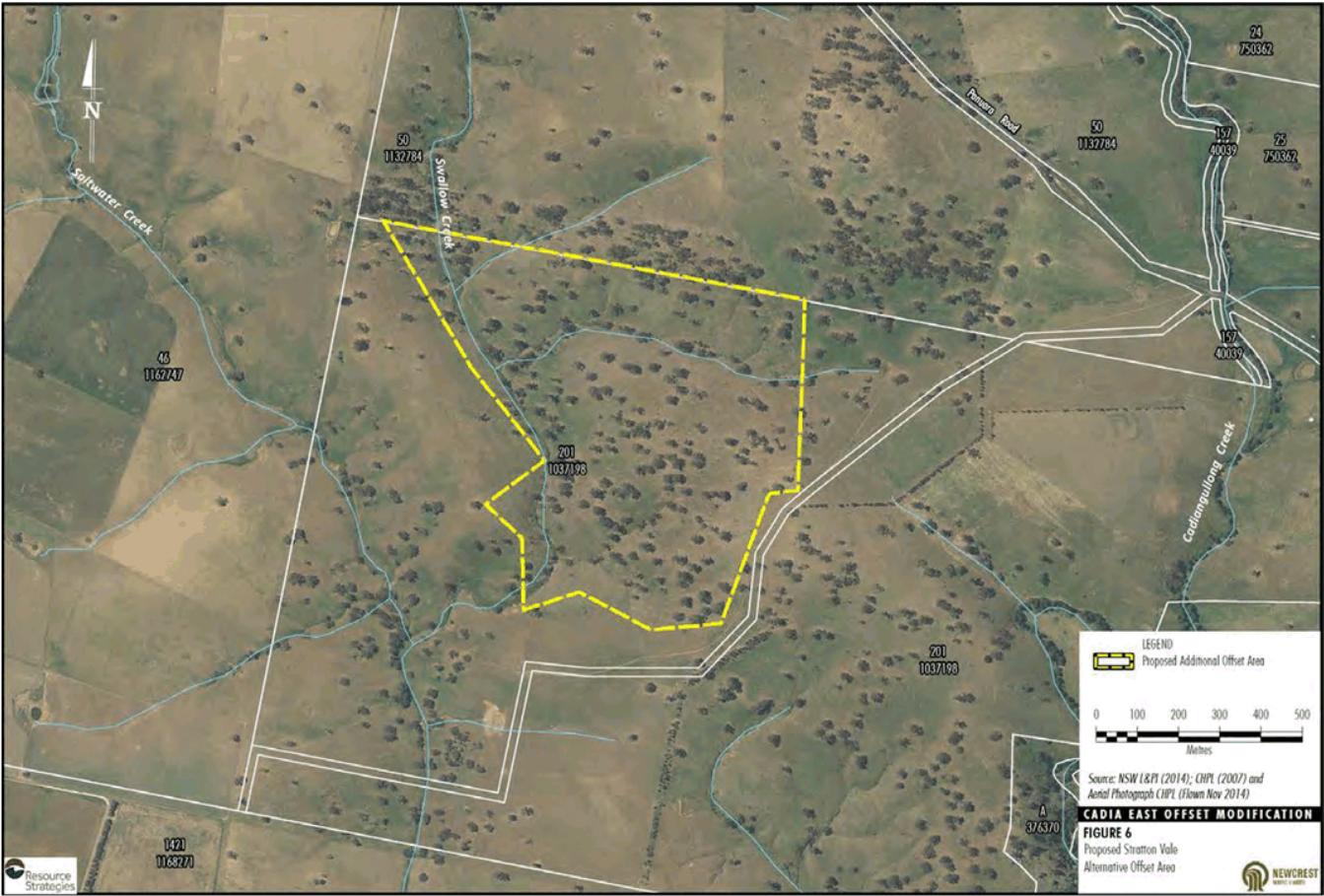


Figure 6.2: Belubula River/Flyers Creek Offset Area

NSW Government  
Department of Planning and Environment



NSW Government  
Department of Planning and Environment





No.	BEARING	DIST
84	176°51'20"	32.56
83	196°25'00"	39.710
82	184°25'20"	45.95
81	195°24'40"	8.515
80	174°55'30"	12.230
79	192°05'30"	22.715
78	179°08'30"	7.215
77	199°26'20"	29.33
76	215°25'00"	26.410
75	219°28'20"	18.095
74	229°32'30"	14.165
73	210°48'50"	12.0
72	235°28'10"	8.24
71	198°57'30"	6.21
70	235°35'10"	26.64
69	242°01'30"	31.230
68	240°40'00"	39.07
67	181°54'30"	16.53
66	192°14'20"	31.30
65	176°07'50"	22.05
64	135°08'20"	16.665
63	127°50'00"	16.65
62	117°55'10"	24.820
61	140°38'20"	41.525
60	133°43'20"	34.05
59	191°46'30"	28.635
58	232°46'20"	22.01
57	244°03'10"	39.695
56	265°44'10"	32.685
55	280°26'50"	26.19
54	275°17'10"	47.49
53	268°25'30"	31.63
52	246°07'00"	17.5
51	233°10'20"	26.60
50	226°06'40"	14.705
49	220°38'10"	13.37
48	215°29'20"	19.185
47	200°55'30"	46.13
46	157°09'30"	26.10
45	157°09'30"	46.455
44	123°48'10"	29.555
43	91°54'10"	27.40
42	75°49'00"	21.205
41	52°20'30"	16.93
40	103°05'20"	20.01
39	145°14'10"	15.305
38	157°49'00"	21.98
37	171°44'00"	21.955
36	193°13'40"	24.16
35	171°36'50"	58.665
34	177°18'20"	33.125
33	164°33'30"	35.645
32	171°04'20"	42.685
31	191°36'20"	41.21
30	162°04'40"	16.62
29	220°09'30"	13.145
28	248°19'20"	28.575
27	279°07'30"	31.515
26	279°10'00"	32.445
25	291°39'40"	9.925
24	201°59'10"	6.415
23	277°05'30"	15.21
22	285°52'00"	30.385
21	281°26'25"	31.085
20	284°44'25"	29.08
19	273°40'25"	35.685
18	279°54'15"	36.005
17	277°20'00"	18.86
16	279°34'50"	15.64
15	291°59'00"	7.58
14	250°59'40"	4.895
13	278°21'20"	11.105
12	343°22'40"	10.09
11	274°16'40"	19.435
10	261°30'00"	6.60
9	249°33'25"	16.51
8	258°51'20"	33.045
7	288°51'40"	6.53
6	251°38'00"	6.785
5	269°27'20"	35.32
4	265°35'40"	22.655
3	255°40'00"	18.39
2	253°58'40"	25.605
1	176°51'20"	32.56

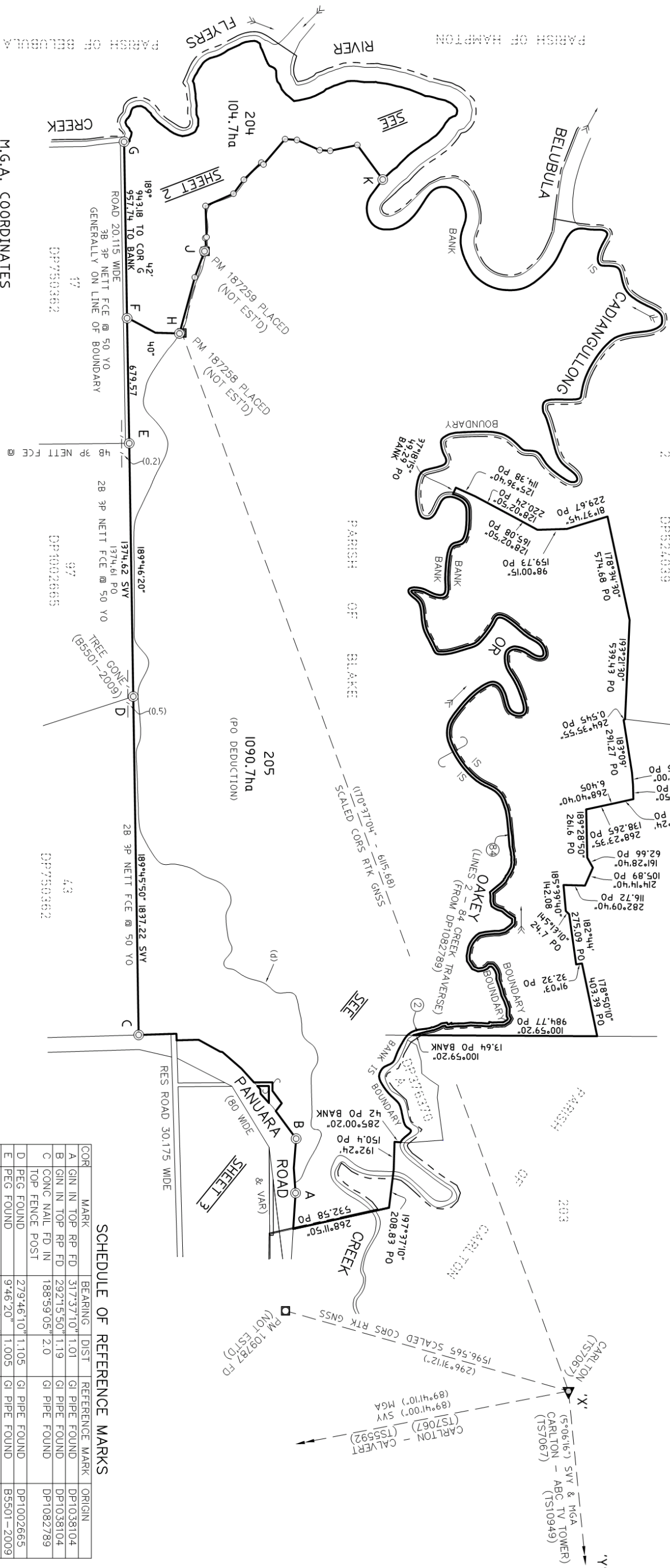
SCHEDULE OF CREEK TRAVERSE (DP1082789)



- NOTE:
- 1: ALL FENCING ON BOUNDARIES OF LOT 204 IS 2B 3P H/JOINT @ 15 YO UNLESS NOTED OTHERWISE
  - 2: ALL CORNERS OF LOT 204 ARE MARKED BY ROUND STEEL FENCE POSTS UNLESS NOTED OTHERWISE
  - 3: BANKS OF FLYERS CREEK & BELUBULA RIVER ARE STABLE AND SHOW NO VISIBLE SIGNS OF ACCRETION OR EROSION

14.21 DP1082789

TRIG & PM CONNECTIONS - CORNERS  
PM109787 - COR A (195°32'37" - 641.77)  
TS 7067 - COR K (181°57'55" - 6654.12)  
PM187259 - COR K (258°39'28" - 1039.57)



M.G.A. COORDINATES

CLAUSE 35(1)(b) & CLAUSE 6(1)(2) OF THE  
SURVEYING & SPATIAL INFORMATION REGULATION 2012

MARK	EASTING	NORTHING	CLASS	ORDER	METHOD	ORIGIN
PM 109787	684392	6290023	U	U	SCIMS	SCIMS
TS 5592	693253.459	6290792.436	2A	0	SCIMS	SCIMS
TS 7067	682963.518	6290736.071	2A	0	SCIMS	SCIMS
TS 10949	684596.056	630902.216	-	3	SCIMS	SCIMS
PM 187258	683960.45	6284702.76	-	-	RTK	SURVEY
PM 187259	683784.335	6284290.88	-	-	RTK	SURVEY

SOURCE: SCIMS DATE 7 JUNE 2016

COMBINED SCALE FACTOR : 0.999891 ZONE 55

(d) RIGHT OF CARRIAGEWAY OVER TRACK IN USE

NOTE:  
1.) LOT 204 SURVEYED BY THEODOLITE.  
2.) PART LOT 205 & PM CONNECTIONS SURVEYED BY GNSS

COR	MARK	BEARING	DIST	REFERENCE MARK	ORIGIN
A	GIN IN TOP RP FD	317°37'10"	1.01	GI PIPE FOUND	DP1038104
B	GIN IN TOP RP FD	292°15'50"	1.19	GI PIPE FOUND	DP1038104
C	CONC NAIL FD IN	188°59'05"	2.0	GI PIPE FOUND	DP1082789
D	TOP FENCE POST	279°46'10"	1.105	GI PIPE FOUND	DP1002665
E	PEG FOUND	9°46'20"	1.005	GI PIPE FOUND	B5501-2009
F	PEG AT BASE VORP	283°41'30"	0.795	GI PIPE PLACED	-
G	GIN IN VORP ADP'D	101°9	4.205	GI PIPE PLACED	-
H	PEG SET	87°44'40"	13.38	PM187258 PLACED	-
J	STEEL FP AT COR	114°43'20"	3.51	PM187259 PLACED	-
K	PEG SET ON BANK	32°43'50"	14.7	GI PIPE PLACED	-

SCHEDULE OF REFERENCE MARKS

Surveyor: TIMOTHY COLLINS

Date of Survey: 22/11/2016

Surveyor's Reference: 21175B

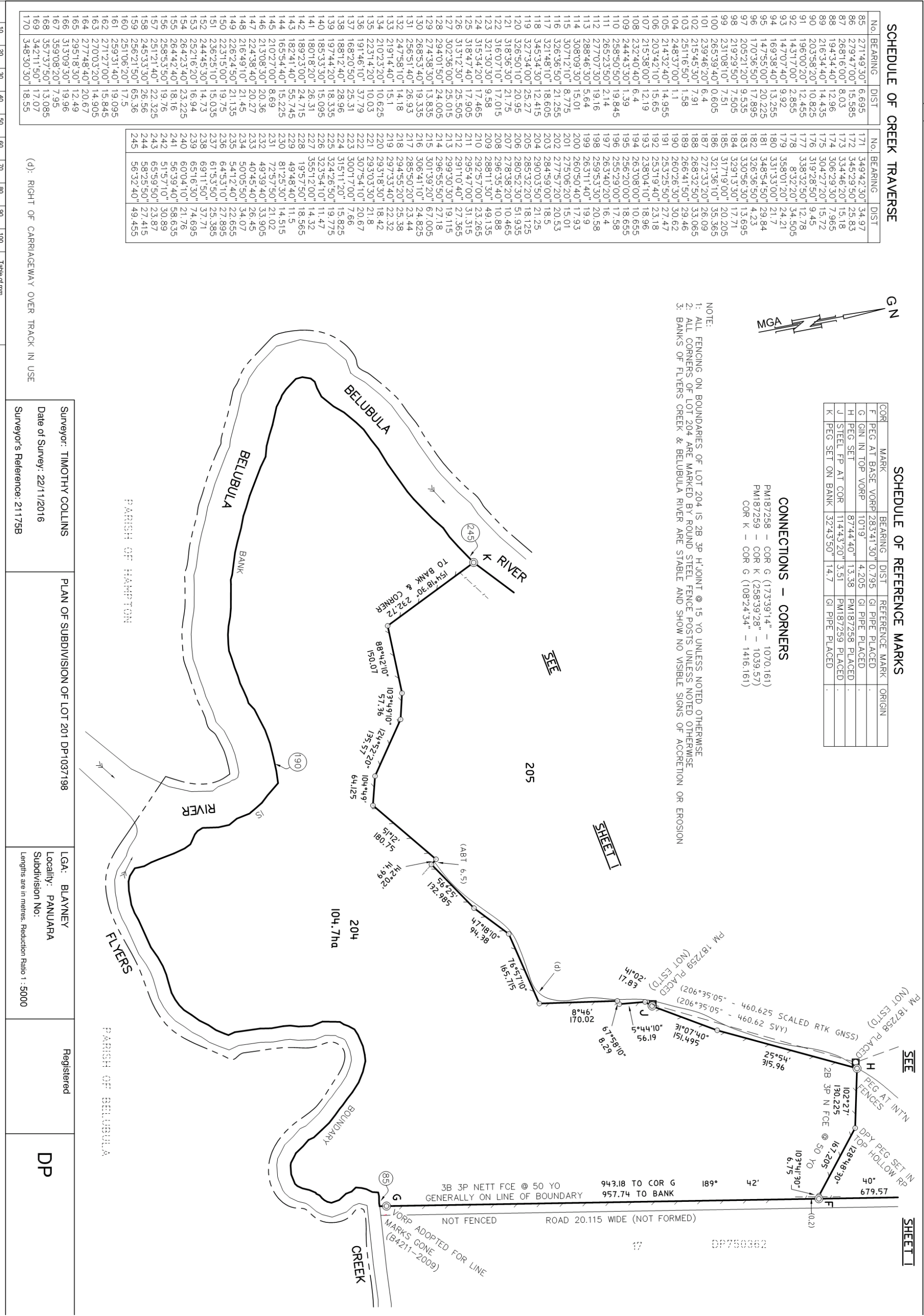
PLAN OF SUBDIVISION OF LOT 1422 DP1168271

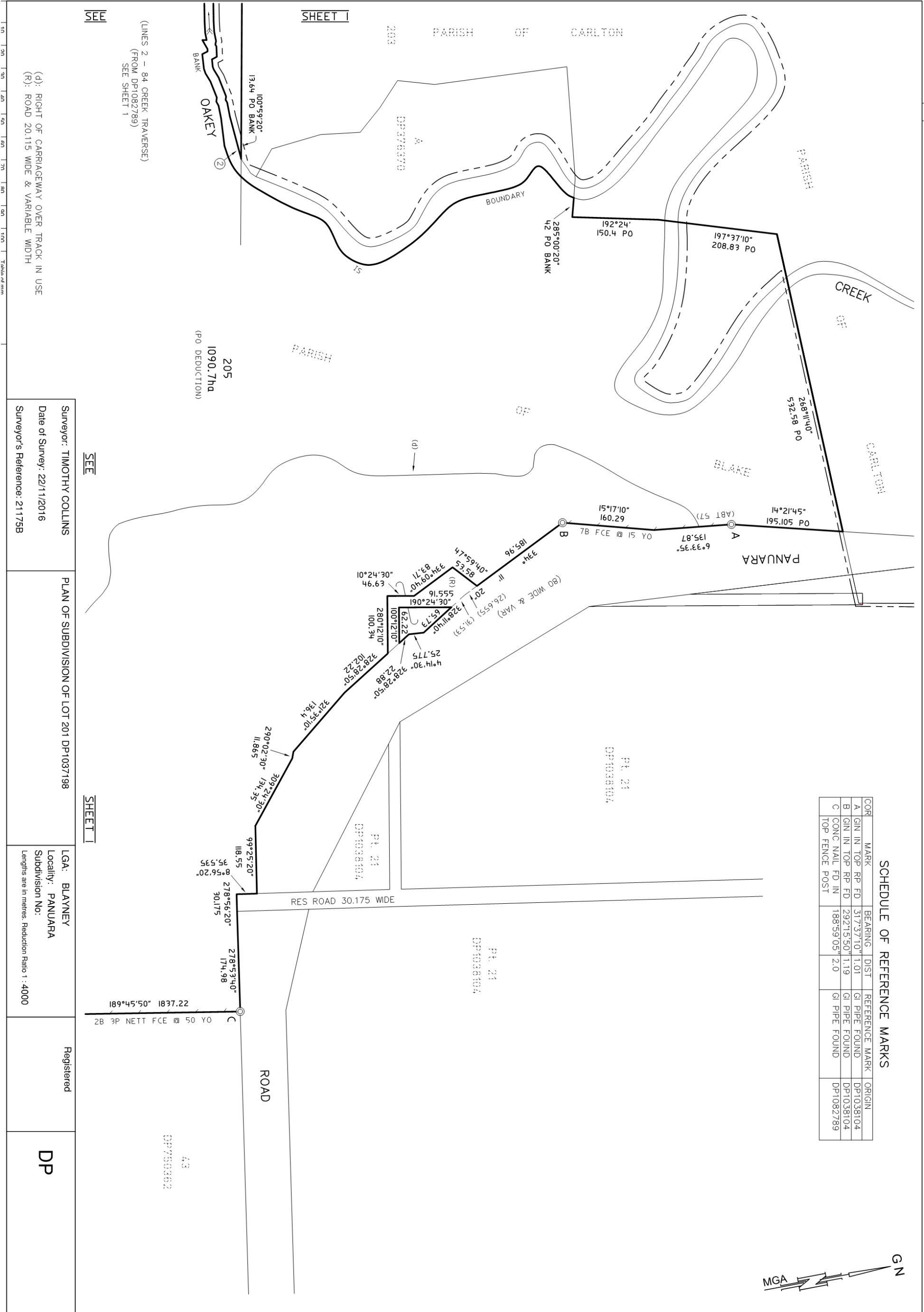
LGA: BLAYNEY  
Locality: PANIUIRA  
Subdivision No:

Lengths are in metres. Reduction Ratio 1 : 15000

Registered

DP









PLAN FORM 6 (2012)

WARNING: Creasing or folding will lead to rejection

DEPOSITED PLAN ADMINISTRATION SHEET		Sheet 1 of 2 sheet(s)
Registered: Title System: Purpose:	Office Use Only	Office Use Only
<b>PLAN OF SUBDIVISION OF LOT 1422 DP1168271</b>	LGA: <b>BLAYNEY</b> Locality: <b>PANUARA</b> Parish: <b>BLAKE &amp; CARLTON</b> County: <b>BATHURST</b>	
<p>Crown Lands NSW/Western Lands Office Approval</p> <p>I, ..... (Authorised Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.</p> <p>Signature: .....</p> <p>Date: .....</p> <p>File Number: .....</p> <p>Office: .....</p>	<p>Survey Certificate</p> <p>I, <b>TIMOTHY COLLINS</b> of <b>CARPENTER COLLINS &amp; CRAIG, PO BOX 685 ORANGE 2800</b> a surveyor registered under the <i>Surveying and Spatial Information Act 2002</i>, certify that:</p> <p><del>*(a) The land shown in the plan was surveyed in accordance with the Surveying and Spatial Information Regulation 2012, is accurate and the survey was completed on .....</del></p> <p>*(b) The part of the land shown in the plan being <b>Lot 204, part Lot 205 and connections</b> was surveyed in accordance with the <i>Surveying and Spatial Information Regulation 2012</i>, is accurate and the survey was completed on, <b>22 November, 2016</b> the part not surveyed was compiled in accordance with that Regulation.</p> <p><del>*(c) The land shown in this plan was compiled in accordance with the Surveying and Spatial Information Regulation 2012.</del></p> <p>Signature: ..... Dated: .....</p> <p>Surveyor ID: <b>861</b></p> <p>Datum Line: <b>'X'-'Y' MGA</b></p> <p>Type: <b>Rural</b></p> <p>The terrain is <b>Steep-Mountainous</b>.</p> <p>*Strike through if inapplicable.</p> <p>^Specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey.</p>	
<p>Subdivision Certificate</p> <p>I, ..... *Authorised Person/*General Manager/*Accredited Certifier, certify that the provisions of s.109J of the <i>Environmental Planning and Assessment Act 1979</i> have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.</p> <p>Signature: .....</p> <p>Accreditation number: .....</p> <p>Consent Authority: .....</p> <p>Date of endorsement: .....</p> <p>Subdivision Certificate number: .....</p> <p>File number: .....</p> <p>*Strike through if inapplicable.</p>		
Statements of intention to dedicate public roads, public reserves and drainage reserves.	<p>Plans used in the preparation of survey/compilation.</p> <p><b>DP1002665</b></p> <p><b>DP1038104</b></p> <p><b>DP1082789</b></p> <p><b>DP1168271</b></p> <p><b>47-691</b></p> <p><b>B4211-2009</b></p> <p>If space is insufficient continue on PLAN FORM 6A</p>	
Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A	Surveyor's Reference: <b>21175B</b>	

PLAN FORM 6A (2012)

WARNING: Creasing or folding will lead to rejection

<b>DEPOSITED PLAN ADMINISTRATION SHEET</b>					Sheet <b>2</b> of <b>2</b> sheet(s)
<b>Registered:</b>  <b>PLAN OF SUBDIVISION OF LOT 1422 DP1168271</b>			<div style="text-align: right;">Office Use Only</div>		
Subdivision Certificate number: ..... Date of Endorsement: .....			This sheet is for the provision of the following information as required: <ul style="list-style-type: none"> <li>A schedule of lots and addresses - See 60(c) <i>SSI Regulation 2012</i></li> <li>Statements of intention to create and release affecting interests in accordance with section 88B <i>Conveyancing Act 1919</i></li> <li>Signatures and seals- see 195D <i>Conveyancing Act 1919</i></li> <li>Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.</li> </ul>		
<b>LOT</b>	<b>STREET NO.</b>	<b>STREET NAME</b>	<b>STREET TYPE</b>	<b>LOCALITY</b>	
204	N/A	Panuara	Road	Panuara	
205	529	Panuara	Road	Panuara	
<b>PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919 IT IS INTENDED TO CREATE:</b> <b>1. RIGHT OF CARRIAGEWAY OVER TRACK IN USE (d)</b>  <b><u>Executed</u> by Contango Agricultural Company Pty Limited</b> ACN 078 273 033 in accordance with Section 127 of the Corporations Law.  <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">             .....              Secretary/Director           </div> <div style="width: 45%;">             .....              Director           </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;">             .....  <u>Name (Block Letters)</u> </div> <div style="width: 45%;">             .....  <u>Name (Block Letters)</u> </div> </div> <b><u>Executed</u> by Cadia Holdings Pty Limited</b> ACN 062 648 006 in accordance with Section 127 of the Corporations Law.  <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;">             .....              Secretary/Director           </div> <div style="width: 45%;">             .....              Director           </div> </div> <div style="display: flex; justify-content: space-between; margin-top: 10px;"> <div style="width: 45%;">             .....  <u>Name (Block Letters)</u> </div> <div style="width: 45%;">             .....  <u>Name (Block Letters)</u> </div> </div> <div style="text-align: right; padding-right: 50px;">             If space is insufficient use additional annexure sheet           </div>					
Surveyor's Reference: <b>21175B</b>					

**INSTRUMENT SETTING OUT TERMS OF EASEMENT TO BE CREATED  
PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919.**

Lengths are in metres

Sheet 1 of 2 Sheets

**Plan**

Plan of Subdivision of Lot 1422  
DP1168271

Subdivision Certificate

No. .... Dated .....

**Full Names and addresses of the  
Registered Proprietors of the land.**

**Contango Agricultural Company  
Pty Limited ACN 078 273 033**

and

**Cadia Holdings Pty Limited**  
ACN 062 648 006

Both

c/- Level 9  
600 St Kilda Road  
**MELBOURNE**  
Vic 3004

**PART 1**

Number of item shown in the intention panel on the plan.	Identity of Easement, profit a' prendre, restriction or positive covenant to be created and referred to in the plan.	Burdened lots or parcels:	Benefited lots, roads, bodies or Prescribed Authorities:
1	Right of Carriageway over Track in Use (d)	205	204

**PART 2**

**Terms of Right of Carriageway over Track in Use numbered 2 in the plan**

Right of Carriageway as set out in Part 1 of Schedule 8 of the Conveyancing Act 1919 provided that:

1. The track in use shall be maintained to a standard that provides no less than all weather access by a four wheel drive vehicle.
2. The Right of Way defined on the plan of survey attached hereto provides benefit and is used on a regular basis by both the lots burdened and the lot benefited. The cost of repairs and maintenance of the Right of Way shall be borne equally by both the proprietors of the land hereby benefited and the proprietors of the land hereby burdened.

Lengths are in metres

Sheet 2 of 2 Sheets

**Plan**

Plan of Subdivision of Lot 1422  
DP1168271

Subdivision Certificate

No. .... Dated .....

**Executed by Contango Agricultural  
Company Pty Limited**

ACN 078 273 033 in accordance with Section  
127 of the Corporations Law.

.....  
Secretary/Director

.....  
Director

.....  
Name (Block Letters)

.....  
Name (Block Letters)

**Executed by Cadia Holdings Pty Limited**

ACN 062 648 006 in accordance with Section  
127 of the Corporations Law.

.....  
Secretary/Director

.....  
Director

.....  
Name (Block Letters)

.....  
Name (Block Letters)

PLAN FORM 6 (2012)

WARNING: Creasing or folding will lead to rejection

DEPOSITED PLAN ADMINISTRATION SHEET		Sheet 1 of 2 sheet(s)
Registered:	Office Use Only	Office Use Only
Title System:		
Purpose:		
<b>PLAN OF SUBDIVISION OF LOT 201 DP1037198</b>	LGA: <b>BLAYNEY</b> Locality: <b>PANUARA</b> Parish: <b>CARLTON</b> County: <b>BATHURST</b>	
<p>Crown Lands NSW/Western Lands Office Approval</p> <p>I, ..... (Authorised Officer) in approving this plan certify that all necessary approvals in regard to the allocation of the land shown herein have been given.</p> <p>Signature: .....</p> <p>Date: .....</p> <p>File Number: .....</p> <p>Office: .....</p>	<p>Survey Certificate</p> <p>I, <b>TIMOTHY COLLINS</b> of <b>CARPENTER COLLINS &amp; CRAIG, PO BOX 685 ORANGE 2800</b> a surveyor registered under the <i>Surveying and Spatial Information Act 2002</i>, certify that:</p> <p><del>*(a) The land shown in the plan was surveyed in accordance with the Surveying and Spatial Information Regulation 2012, is accurate and the survey was completed on .....</del></p> <p>*(b) The part of the land shown in the plan being <b>Lot 202 and connections</b> was surveyed in accordance with the <i>Surveying and Spatial Information Regulation 2012</i>, is accurate and the survey was completed on, <b>8 June, 2016</b> the part not surveyed was compiled in accordance with that Regulation.</p> <p><del>*(c) The land shown in this plan was compiled in accordance with the Surveying and Spatial Information Regulation 2012.</del></p> <p>Signature: ..... Dated: .....</p> <p>Surveyor ID: <b>861</b></p> <p>Datum Line: <b>'X'-'Y' MGA</b></p> <p>Type: <b>Rural</b></p> <p>The terrain is <b>Steep-Mountainous</b>.</p> <p>*Strike through if inapplicable.</p> <p>^Specify the land actually surveyed or specify any land shown in the plan that is not the subject of the survey.</p>	
<p>Subdivision Certificate</p> <p>I, ..... *Authorised Person/*General Manager/*Accredited Certifier, certify that the provisions of s.109J of the <i>Environmental Planning and Assessment Act 1979</i> have been satisfied in relation to the proposed subdivision, new road or reserve set out herein.</p> <p>Signature: .....</p> <p>Accreditation number: .....</p> <p>Consent Authority: .....</p> <p>Date of endorsement: .....</p> <p>Subdivision Certificate number: .....</p> <p>File number: .....</p> <p>*Strike through if inapplicable.</p>	<p>Statements of intention to dedicate public roads, public reserves and drainage reserves.</p>	<p>Plans used in the preparation of survey/compilation.</p> <p><b>DP1016031</b></p> <p><b>DP1037198</b></p> <p>If space is insufficient continue on PLAN FORM 6A</p>
Signatures, Seals and Section 88B Statements should appear on PLAN FORM 6A	Surveyor's Reference: <b>21175A</b>	

PLAN FORM 6A (2012)

WARNING: Creasing or folding will lead to rejection

<b>DEPOSITED PLAN ADMINISTRATION SHEET</b>				Sheet <b>2</b> of <b>2</b> sheet(s)
Office Use Only		Office Use Only		
<b>Registered:</b>  <b>PLAN OF SUBDIVISION OF LOT 201 DP1037198</b>		This sheet is for the provision of the following information as required: <ul style="list-style-type: none"> <li>A schedule of lots and addresses - See 60(c) <i>SSI Regulation 2012</i></li> <li>Statements of intention to create and release affecting interests in accordance with section 88B <i>Conveyancing Act 1919</i></li> <li>Signatures and seals- see 195D <i>Conveyancing Act 1919</i></li> <li>Any information which cannot fit in the appropriate panel of sheet 1 of the administration sheets.</li> </ul>		
Subdivision Certificate number: ..... Date of Endorsement: .....				
<b>LOT</b>	<b>STREET NO.</b>	<b>STREET NAME</b>	<b>STREET TYPE</b>	<b>LOCALITY</b>
202	N/A	Panuara	Road	Panuara
203	563	Panuara	Road	Panuara
<p><b>PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919 IT IS INTENDED TO CREATE:</b></p> <ol style="list-style-type: none"> <li>1. RIGHT OF CARRIAGEWAY VARIABLE WIDTH (c)</li> <li>2. RIGHT OF CARRIAGEWAY OVER TRACK IN USE (d)</li> </ol> <p><b><u>Executed</u> by Contango Agricultural Company Pty Limited</b>                      ACN 078 273 033 in accordance with Section 127 of the Corporations Law.</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%;"> <p>..... Secretary/Director</p> <p>..... <u>Name (Block Letters)</u></p> </div> <div style="width: 45%;"> <p>..... Director</p> <p>..... <u>Name (Block Letters)</u></p> </div> </div> <p><b><u>Executed</u> by Cadia Holdings Pty Limited</b>                      ACN 062 648 006 in accordance with Section 127 of the Corporations Law.</p> <div style="display: flex; justify-content: space-between; margin-top: 20px;"> <div style="width: 45%;"> <p>..... Secretary/Director</p> <p>..... <u>Name (Block Letters)</u></p> </div> <div style="width: 45%;"> <p>..... Director</p> <p>..... <u>Name (Block Letters)</u></p> </div> </div> <p style="text-align: center; margin-top: 10px;">If space is insufficient use additional annexure sheet</p> <p>Surveyor's Reference: <b>21175A</b></p>				

**INSTRUMENT SETTING OUT TERMS OF EASEMENT TO BE CREATED  
PURSUANT TO SECTION 88B OF THE CONVEYANCING ACT 1919.**

Lengths are in metres

Sheet 1 of 2 Sheets

**Plan**

Plan of Subdivision of Lot 201  
DP1037198

**Full Names and addresses of the  
Registered Proprietors of the land.**

**Contango Agricultural Company  
Pty Limited** ACN 078 273 033

and

**Cadia Holdings Pty Limited**  
ACN 062 648 006

Both

c/- Level 9  
600 St Kilda Road  
**MELBOURNE**  
Vic 3004

**PART 1**

Number of item shown in the intention panel on the plan.	Identity of Easement, profit a' prendre, restriction or positive covenant to be created and referred to in the plan.	Burdened lots or parcels:	Benefited lots, roads, bodies or Prescribed Authorities:
1	Right of Carriageway Variable Width (c)	203	202
2	Right of Carriageway over Track in Use (d)	203	202

**PART 2**

**Terms of Right of Carriageway over Track in Use numbered 2 in the plan**

Right of Carriageway as set out in Part 1 of Schedule 8 of the Conveyancing Act 1919 provided that:

1. The track in use shall be maintained to a standard that provides no less than all weather access by a four wheel drive vehicle.
2. The Right of Way defined on the plan of survey attached hereto provides benefit and is used on a regular basis by both the lots burdened and the lot benefited. The cost of repairs and maintenance of the Right of Way shall be borne equally by both the proprietors of the land hereby benefited and the proprietors of the land hereby burdened.

Lengths are in metres

Sheet 2 of 2 Sheets

**Plan**

Plan of Subdivision of Lot 201  
DP1037198

**Executed by Contango Agricultural  
Company Pty Limited**

ACN 078 273 033 in accordance with Section  
127 of the Corporations Law.

.....  
Secretary/Director                      Director

.....  
Name (Block Letters)                      Name (Block Letters)

**Executed by Cadia Holdings Pty Limited**

ACN 062 648 006 in accordance with Section  
127 of the Corporations Law.

.....  
Secretary/Director                      Director

.....  
Name (Block Letters)                      Name (Block Letters)



## **Appendix B**

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### **SECTION 9 CVO LAND AND BIODIVERSITY (LANDSCAPE) MANAGEMENT PLAN**

## **9.0 CADIA EAST OFFSET (BLACK ROCK RANGE, FLYERS CREEK & STRATTON VALE) LANDSCAPE.**

### **9.1 INTRODUCTION**

In lieu of clearing remnant vegetation as part of the Cadia East project, a conservation offset has been approved. The majority of the offset area is located on Black Rock Range, which is approximately 11 km west of Cadia Valley Operations. The Black Rock Range offset area contains approximately 647 ha of remnant vegetation and approximately 162 ha of predominately cleared agricultural land, the latter of which will be revegetated. The agreed offset also includes a portion of land at the confluence of the Flyers Creek and the Belubula River and comprises 97 ha and a portion of 60 ha on the property 'Stratton Vale' with a history of clearing for agricultural purposes.

### **9.2 LOCALITY**

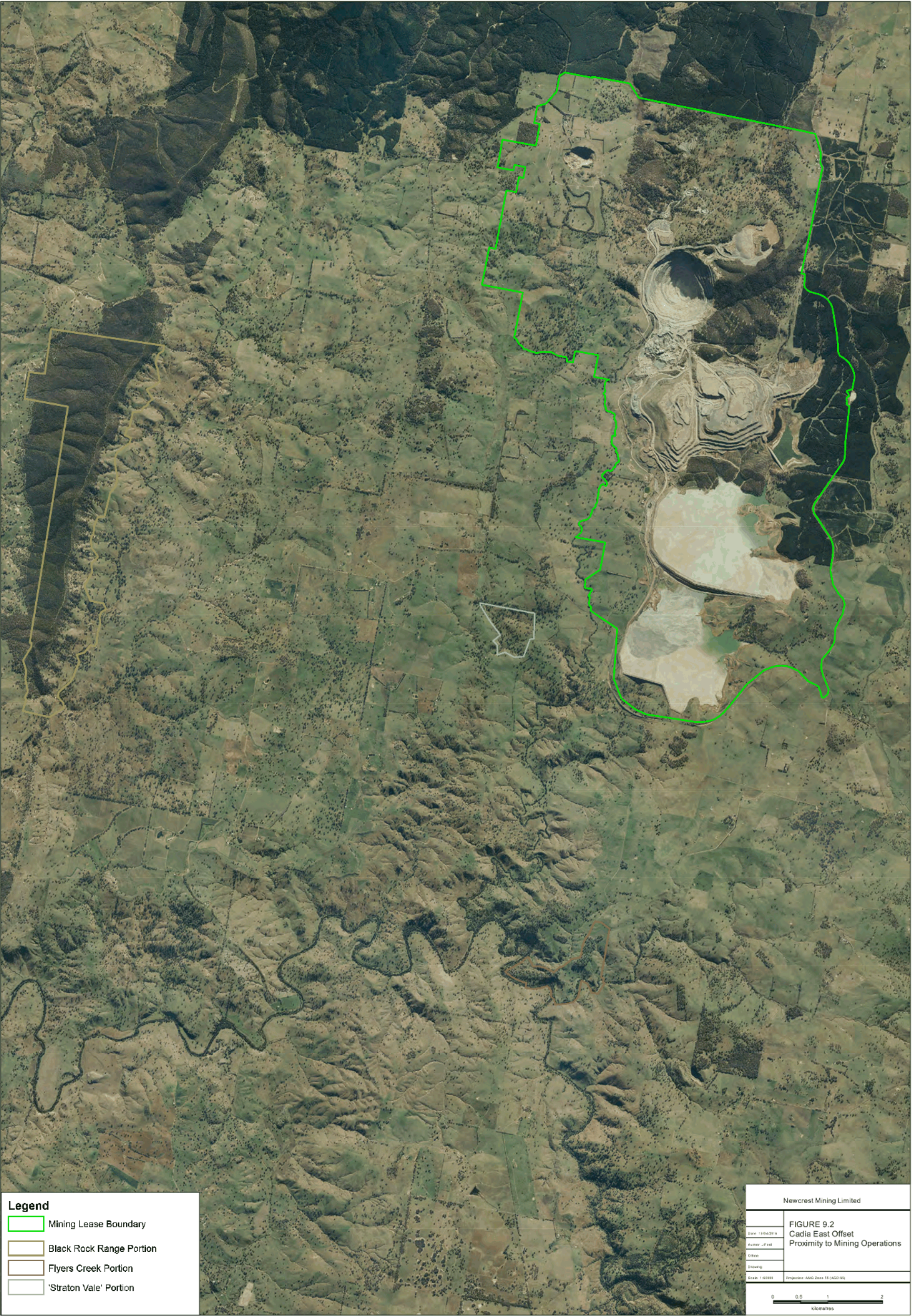
The following figures show the location of the offset areas within NSW (Figure 9.1) and relative to Cadia Valley Operations (Figure 9.2), a detailed aerial photo of the Black Rock Range Offset Area (Figure 9.3) and a detailed aerial photo of the Flyers Creek and 'Stratton Vale' portions of the Cadia East Offset (Figure 9.4). Deposited plan maps showing the formal surveyed lots are located in Appendix A.

Figure 9.1 – Site locality within NSW.

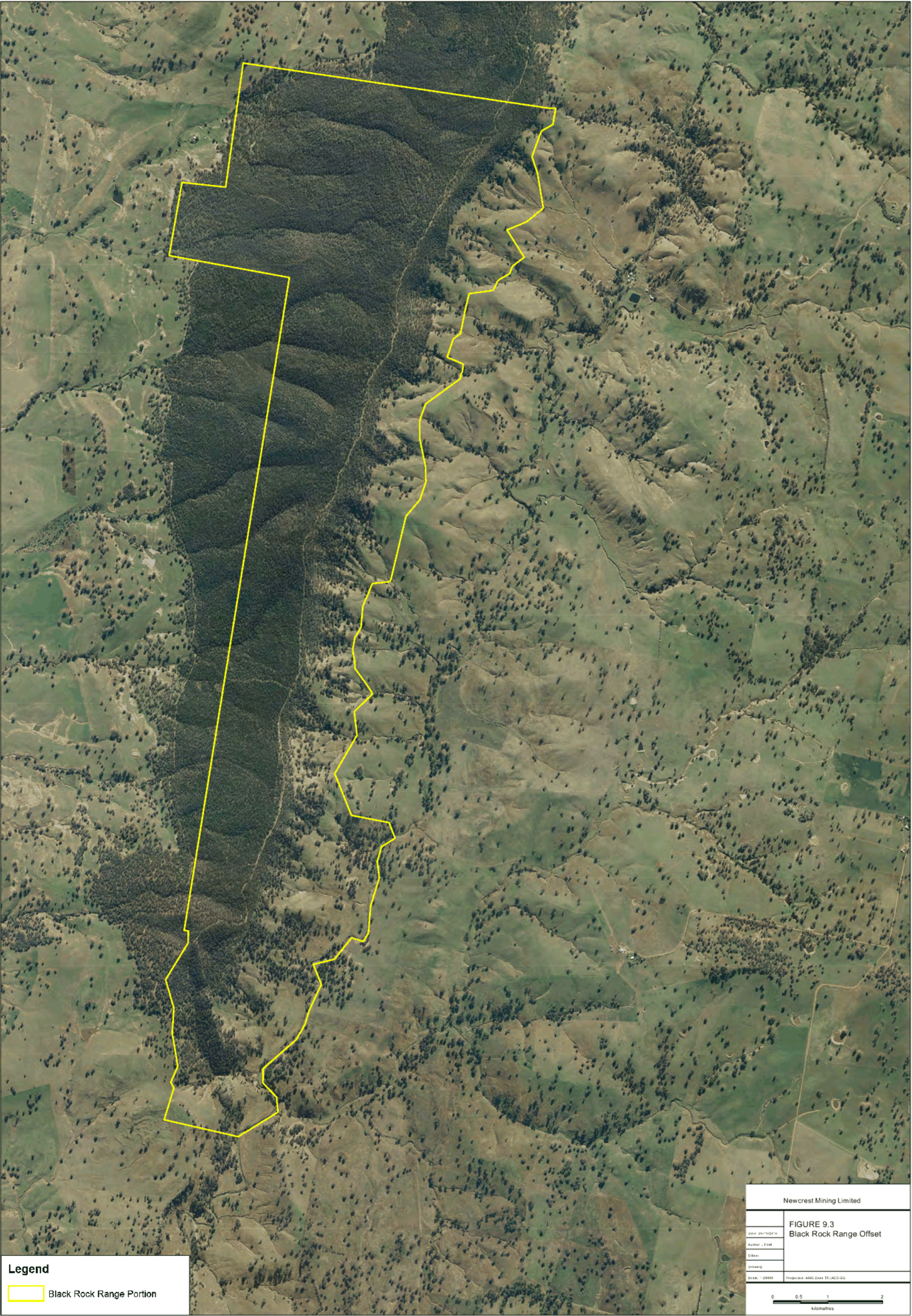






















### 9.3 BACKGROUND INFORMATION

The following section provides a general overview of the environmental context of the region surrounding Cadia Valley Operations and where appropriate specific to the conservation offset areas. The information has generally been sourced from the Cadia East Environmental Assessment (CHPL 2009) including associated studies.

#### 9.3.1 Climate

Regional meteorological data are available from the Bureau of Meteorology (BoM) weather stations at Orange Agricultural Institute (BoM Station No. 063254), Orange Airport Comparison (BoM Station No. 063231) and the discontinued Blayney Post Office (BoM Station No. 063010).

Meteorological conditions are currently monitored at the Cadia Valley Operations at on-site meteorological stations within ML 1405 (Southern Lease Boundary (SLB) Station) and ML 1449 (Ridgeway Station).

##### Temperature

Regional temperatures are warmest from November to March and coolest from May to August. Average daily maximum temperatures peak in January with 26.2°C, (Orange Airport Comparison), while average daily minimum temperatures are lowest in July with 0.6°C, (Orange Airport Comparison).

##### Rainfall

The mean annual rainfall recorded at the Orange Airport Comparison site is 884mm / year, however this varies considerably with site based weather stations where averages for SLB and Ridgeway stations are 593 and 659mm / year respectively. However the periods of records for SLB and Ridgeway Stations have coincided with a period where drought has been a feature of the climate

The months with the highest and lowest monthly average rainfalls at the SLB and Ridgeway Stations are February (71.4 mm and 83.3 mm) and April (25.7 mm and 24.6 mm), respectively.

##### Evaporation

Total mean annual evaporation based on Orange Agricultural Institute records was 1,461.0 mm per year. January (220.1 mm) had the highest monthly rates of evaporation while June (42.0 mm) had the lowest monthly rates.

##### Wind

Assessment of wind data indicates that at the Ridgeway Station, the most common winds are from the south-west and north-east. The area did not commonly experience low wind speeds with calm periods (i.e. winds less than or equal to 0.5 metres per second [m/s]) measured only 3.2% of the time.

At the SLB Station, the prevailing winds were generally from the north-eastern quadrant and from the west-southwest to the north-northwest. For the July 2007 to June 2008 period, this site recorded approximately 3.0% of calm periods (i.e. winds less than or equal to 0.5 m/s).

Annual average wind speeds for the SLB and Ridgeway Stations were 3.7 m/s and 3.5 m/s respectively for the July 2007 to June 2008 monitoring period.

### 9.3.2 Bushfire

The bushfire season experienced in the Cadia Valley area and Central West Region is generally from mid-November to mid-March.

Depending on factors such as weather, fuel loads (build-up of leaf litter and broken branches) and drought indices, this season can be extended from early September to late April.

CHPL-owned land, including conservation offset areas extends over four NSW Rural Fire Brigades brigade jurisdictions (i.e. Burnt Yards/Cadia, Panuara/Four Mile Creek, Springside and Cargo Brigades) which form part of the Canobolas Zone. CHPL operates the Cadia Valley Operations Emergency Response Team which provides emergency assistance to the NSW Rural Fire Brigade when required.

### 9.3.3 Physical environment

#### Landforms and Topography

The Orange region is located on the western side of the Great Dividing Range. Areas of higher elevation in the region include Mount Canobolas (1,396 m AHD) and Mount Towac (1,136 m AHD) located to the north of the Cadia Valley. In the Cadia Valley, elevations generally range from approximately 600 m AHD to 1,000 m AHD.

The region is predominantly characterised by gently undulating hills, cleared open grassland and vegetation consisting mainly of scattered paddock trees, with isolated patches of remnant woodland and shelterbelts. State Forests situated in the area include the Glenwood and Canobolas State Forests to the south-west of Orange.

#### Soils

The following soil types have been encountered in the area,

- alluvial soil;
- yellow podzolic;
- red podzolic;
- krasnozem;
- red earth;
- yellow earth;
- euchrozem;
- lithosol;
- yellow solodic soil.

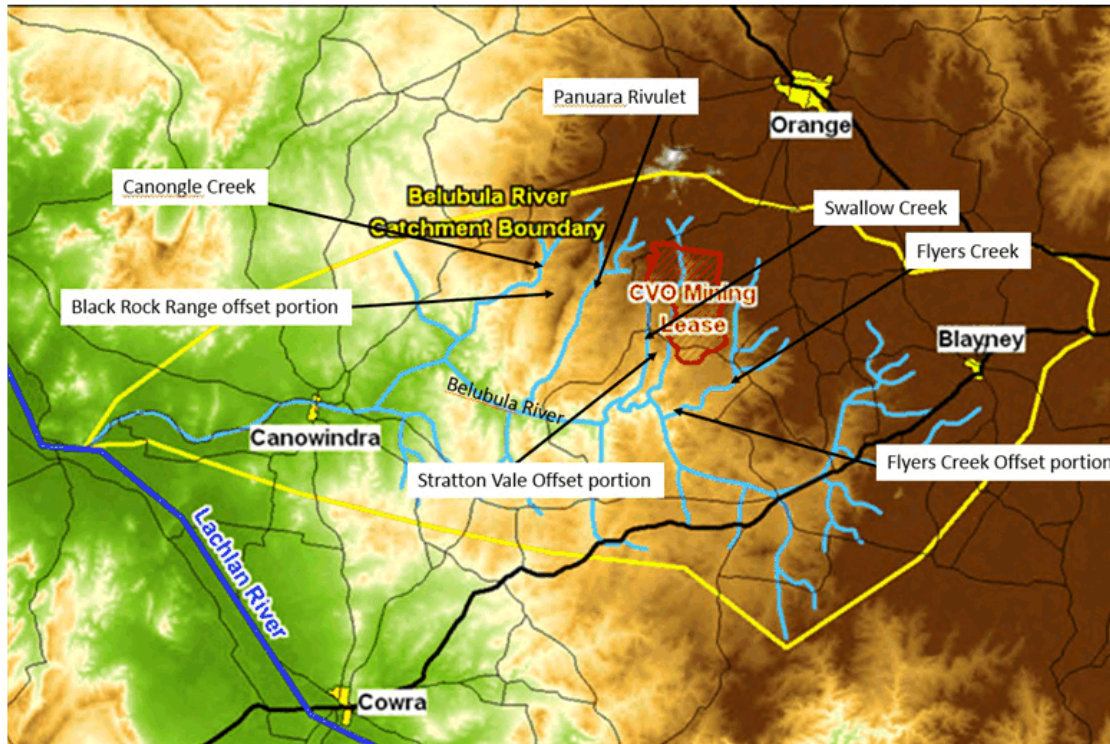
The following soil landscapes have been identified in the Cadia Valley Operations area:

- Barenore-Lyndhurst;
- Panuara;
- Quarry;
- Canobolas;
- Vittoria-Blayney; and
- Towac.

### Hydrology

Conservation Offset areas have interaction with the surface water catchments of Flyers Creek, Swallow Creek, the Belubula River, Panuara Rivulet and Canongle Creek. These creek systems generally drain to the south into the Belubula River, which forms part of the Lachlan River catchment (Figure 9.5 – Location of CVO in Upper Lachlan Catchment). At its confluence with the Lachlan River the Belubula drains a total catchment area of approximately 2,570 km<sup>2</sup> and has an estimated mean annual flow of 97,400 ML. The Lachlan is a major inland river system in the NSW section of the Murray-Darling Basin.

Figure 9.5 – Location of CVO in Upper Lachlan Catchment



## 9.4 BASELINE INFORMATION

The following is a brief summary of baseline features of conservation offset areas which is drawn from numerous studies leading to the Cadia East Project Approval and associated modifications. The relevant studies have been included as Appendices for future reference and include:

Appendix B	Black Rock Ridge Flora Assessment (Florasearch March 2006)
Appendix C	Flora and Fauna Habitat Survey of proposed changes to the Cadia Valley Operations Biodiversity Offset Areas (Florasearch April 2015)
Appendix D	Black Rock Range Vertebrate Fauna Survey (Western Research Institute March 2006)
Appendix E	An Assessment of the Bat Fauna at Black Rock Range, Cadia Valley NSW (Greg Richards & Associates (March 2006)



### 9.4.1 Flora and Fauna

#### Black Rock Range Portion

##### Flora

Five natural plant communities were defined on BRR, one of which had four distinct sub-communities. The following table provides a summary of the identified communities (corresponding maps are contained in Section 9.14).

Community Number	Common Names	Scientific Names	Landscape Position
1	White Box Woodland	<i>Eucalyptus albens</i>	Deep stony colluvial soils on upper slopes below the escarpment on the eastern side of the BRR and on deep sandy loam soils in the north western corner of the BRR Study Area on the footslopes of the range.
2	Yellow Box/Blakely's Red Gum Woodland	<i>E. melliodora</i> / <i>E. blakelyi</i>	Lower slopes and valleys on deep colluvial soils at the south end of the BRR and on colluvial/alluvial soils in the lower gullies and slopes draining to Panuara Creek. There is also a small occurrence in the north western corner of the BRR Study Area.
3	Red Stringybark/Red Box Forest	<i>E. macrorhyncha</i> / <i>E. polyanthemos</i>	This community occurs upslope of community 1 in the north west of the BRR Study Area on stony loam soils of moderate depth that may be wet for long periods in winter. It also occurs to the top of the BRR on the western side in the south.
4a	Red Stringybark/Bundy/Black Cypress Pine Forest	<i>E. macrorhyncha</i> / <i>E. gonicalyx</i> / <i>Callitris endlicheri</i>	This sub-community occurs on steep rocky slopes, often south or west facing, which afford some protection from the sun.
4b	Red Stringybark/Bundy/Black Cypress Pine/Rusty Spider Flower/Common Heath Myrtle Heathy Woodland	<i>E. macrorhyncha</i> / <i>E. gonicalyx</i> / <i>C. endlicheri</i> / <i>Grevillea floribunda</i> / <i>Calytrix tetragona</i>	Heathy woodlands are found on the upper western slopes and ridges of the BRR on shallow or skeletal soils, often where the sloping sandstone beds are exposed.
4c	Black Cypress Pine	<i>C. endlicheri</i>	Black Cypress Pine may form almost pure stands over relatively large areas on the upper slopes and ridgetops in the central and southern parts of the range.
4d	Currawang	<i>Acacia doratoxylon</i>	Currawang occurs in pure stands on slopes and ridges in the central parts of the range.
5	Gully Forest	Mixed <i>Eucalyptus</i> species	This community is characteristic of the lower ends of watercourses in the deeper gullies draining the western side of the BRR.
6	Cleared land	Many introduced and native species of grasses and herbs with scattered native trees.	Between the BRR and the Panuara Rivulet.

The 2006 vegetation survey recorded 312 vascular plant species on the study area, of which 223 are native (71.5%) and 89 introduced (28.5%). A complete list of recorded plant species is given according to vegetation community and sub-community in Appendix B.

The most prominent native plant families represented on the study area were the Daisies (Asteraceae) – 28 species, the Grasses (Poaceae) – 23 species, the Orchids (Orchidaceae) – 22 species, the Pea Flowers (Fabaceae) – 11 species and the Eucalypts and allies (Myrtaceae) - 11 species.

The dominant families of introduced species were the Grasses (Poaceae) – 23 species, the Daisies (Asteraceae) – 14 species, the Pea Flowers (Fabaceae) – 12 species and the Chickweeds and relatives (Caryophyllaceae) – 8 species. Introduced species were most prominent in communities dominated by White Box and Yellow Box on deep fertile soils at the margins of BRR, and were least evident in communities dominated by Red Stringybark, Bundy and Black Cypress Pine on low fertility skeletal soils on the upper slopes and ridges of BRR. 4 introduced species are declared noxious in the Cabonne Council area and have specific control requirements; namely Blackberry (*Rubus fruticosus* agg. spp.), St. John's Wort (*Hypericum perforatum*), Serrated Tussock (*Nassella trichotoma*) and Sweet Briar (*Rosa rubiginosa*)

No species listed as threatened under the NSW Threatened Species Conservation Act, 1995 or the Commonwealth Environment Protection and Biodiversity Conservation Act, 1999 were found during the surveys. Nor were any species listed as Rare or Poorly Known in Rare or Threatened Australian Plants (ROTAP) (Briggs and Leigh, 1995) identified.



## Cadia Valley Operations

The White Box, Yellow Box, Blakely's Red Gum Woodland EEC listed under the NSW TSC Act occurs within the BRR Study Area. This community is equivalent to the listed Grassy White Box Woodlands, together with the nominated Yellow Box/Red Gum Grassy Woodlands under the Commonwealth EPBC Act. This EEC is represented in the BRR Study Area by vegetation communities 1 and 2, which occur at the margins of the core wooded areas of BRR and as semi-cleared remnants in the agricultural land between BRR and the Panuara Rivulet. (refer to Section 9.14)

The condition of the vegetation varies across the study area. In general, vegetation condition in the communities of the densely wooded parts of BRR is good to very good, despite the effects of the 1985 wildfire and high levels of macropod grazing. Patches of remnant vegetation in the heavily grazed agricultural areas are generally in poor condition due to dominance by weeds in the understorey, although tree health is good.

### Fauna

A total of 138 species were identified in the 2006 survey of Black Rock Range including 129 native and 9 introduced species. A fully copy of the survey results is contained in Appendix D and E

Black Rock Range Study Area	
Amphibians	6
Reptiles	20
Birds	82
Mammals	10
Mammals (bats)	11
Introduced	7
<b>Totals</b>	<b>125</b>

Six threatened species were identified during the survey including:

Scientific Name	Common Name	Conservation Status	
		TSA	EPBC
<i>Varanus rosenbergi</i>	Heath Monitor	V	
<i>Pyrholaemus sagittatus</i>	Speckled Warbler	V	
<i>Climacteris picumnus</i>	Brown Tree Creeper	V	
<i>Stagonopleura guttata</i>	Diamond Fire-tail Finch	V	
<i>Polytelis swainsonii</i>	Superb Parrot	V	V
<i>Ninox connivens</i>	Barking Owl	V	
<i>Saccolaimus flaviventris</i>	Yellow-bellied Sheath-tail Bat	V	
<i>Miniopterus schreibersii</i>	the Large Bentwing Bat	V	

Nine introduced species were identified during the 2006 survey including:

- Common Blackbird,
- Common Starling,
- House Mouse,
- Fox,
- Cat,
- Rabbit,
- Brown Hare,
- Dog,
- House Sparrow,
- Common Myna
- European Cow

Habitat assessment indicated that forest/woodland types found in the study area had medium conservation value with some loss of resilience<sup>1</sup> and mid to low levels of disturbance. Under current management practice (no grazing and little disturbance), the dynamics are towards an overall increase in conservation value. In a landscape context, the 1985 fire created a successional mosaic that in a pre-European context would have been balanced by greater areas of unburnt mature age communities elsewhere in the landscape. This 'balance' no longer exists. Hence in the current agricultural context, hot wild fire can be a degrading factor and lead to local loss of species diversity. Vegetation layers ranged from 7 (litter, rock, log, grass-herb, shrub, mid canopy, and mature tree canopy in a range of configurations from sparse to dense) through to bare ground. The habitat values are further modified by aspect, slope, soil depth, and terrain (e.g. drainage line). Little dieback was evident, weed invasion other than in the western box woodlands was relatively light. Stags without hollows were relatively common.

The unburnt woodlands were located either on the western slope near the ridge between the ridge fire trail and the escarpment, or on the eastern slopes. These ranged from woodland formation with dominants spaced at 20-40 m intervals through to open woodland or cleared areas with remnant scattered old growth trees 50 - 200 m apart. Hollows were relatively common in these woodlands and were the major contributing factor to the presence of a much greater density of arboreal fauna in these woodlands compared to the expanse of hollow-limited mosaic communities on the greater proportion of the western slopes. Grazed areas, with their very modified understorey and continuing stock access, had diminished habitat value. Unburnt communities were assessed as reasonable examples of intact communities. However this assertion is not necessarily reflected in the vertebrate species diversity, given their relatively small areas. Rather, the overall habitat value of this landscape is very likely dependant on the structural and floristic variability within the landscape.

The sandstone escarpment offers very specialised habitats, with its array of ledges, small caves, nooks and crannies, vine-clad sections, protection from predators, cliff-base undercuts and a rocky basal platform protruding 2-20 m from the cliff face. This is further enhanced by mostly intact vegetation communities to east and west of the escarpment.

<sup>1</sup> Resilience Def. Resilience is the system's ability to recover from damage (sometimes called 'regeneration capacity') (Buchanan 2009). Evidence of a system's resilience can include: remnant native plants, seed stored in the soil, unmodified soil conditions, adjacent nearby seed sources. Areas which have high resilience will have several of these examples featured in the landscape, these areas will recover faster and with less effort than areas with low resilience (which will require significant intervention for recovery such as soil amendment, complete replanting / re-sowing mass removal of weed species etc).

### **Stratton Vale Portion**

#### **Flora**

The vegetation of the Stratton Vale Offset portion comprises four vegetation communities:

- Yellow Box Woodland;
- White Box Woodland;
- Derived Grassland; and
- Exotic Grassland.

The original woodland vegetation on Stratton Vale has been thinned historically and now comprises mostly widely spaced trees separated by grassland dominated by exotic grasses and legumes. Some large areas of derived native grassland also occur. These are dominated by grazing-tolerant native species including Speargrass (*Austrostipa scabra*) on dry north-facing slopes and Red Grass (*Bothriochloa macra*) on south-facing slopes.

A total of 69 flora species were identified during April 2015 surveys comprising twenty three native (33.3%) and 46 introduced (66.7%) species. The results showed the presence of low numbers of native species and that introduced species greatly predominated.

Three introduced species are declared noxious weeds under the NSW Noxious Weeds Act, 1993 for the Upper Macquarie County Council Area and occur within the offset area including;

- Bathurst Burr (*Xanthium spinosum*);
- Blackberry (*Rubus fruticosus* agg. spp); and
- St. John's Wort (*Hypericum perforatum*).

All noxious weeds occurred only in low numbers indicating they have been well controlled.

Vegetation condition assessments concluded that the vegetation was in relatively poor condition. The groundcover was in low condition with greater than 50% cover by exotic species. Despite this, the area does contain important features including groundcover containing native grasses/herbs/forbs, trees with hollows, fallen logs and a native overstory.

No threatened flora species were identified during the survey.

The vegetation assessment concluded that all Box-Gum Woodland remnants within the survey area conformed to the TSC Act EEC guidelines, but none conform to the EPBC Act CEEC guidelines owing to the very poor condition of the ground cover

The proposed Stratton Vale offset portion has relatively high fauna habitat values for the following reasons;

- Many of the remnant trees at Stratton Vale are very large and clearly pre-date European settlement. One tree hosts the nest of a Little Eagle (*Hieraaetus morphnoides*), listed as Vulnerable under the TSC Act. In addition, many of the White Box trees have hollows suitable for parrots and a nesting population of the Vulnerable Superb Parrot (*Polytelis swainsonii*) is present on and around the investigation area.
- While the groundcover is generally dominated by exotic species, there is a good representation of native perennial grasses, potentially providing habitat for granivorous birds favouring native grass seed, such as finches and the Superb Parrot.
- However, the Stratton Vale offset portion is lacking in tall and low shrubs that would provide cover and nesting habitat for many birds including finches, babbblers, thornbills and others.
- There are limited opportunities for most reptiles owing to very dense exotic grass cover over much of the area and relatively few logs on the ground. However, areas of surface rock on ridges and rock outcrops along Swallow Creek provide reptile habitat.
- Swallow Creek provides water for wildlife and habitat for aquatic fauna.



### **Flyers Creek / Belubula River Portion**

The Flyers Creek / Belubula River offset portion comprises 97 Hectares, of which approximately 23 Hectares meets the criteria for the NSW listed Box-Gum Woodland EEC and the Commonwealth listed Box-Gum Grassy Woodlands and Derived Native Grasslands CEEC. The offset area also includes frontage to approximately 600m of the Belubula River and 1370m to Flyers Creek (Figure 9.6).



### **Flora**

Figure 9.6 shows the vegetation communities and locations within the Flyers Creek offset portion. i

BioMetric data on vegetation condition in the Belubula River/Flyers Creek area indicated that the River Oak Forest and immediately adjacent Yellow Box Woodland were both in poor condition with their ground cover in 'low' condition owing to a high dominance of exotic species. Further away from riparian areas, in areas formally identified as EEC, the condition of the Yellow Box Woodland improves with a higher incidence of native grasses, herbs and forbs.

No threatened flora species were identified in the existing Belubula River/Flyers Creek offset area

### **Fauna**

Fauna habitat value for offset area is relatively low for the following reasons;

The eucalypt canopy has been thinned. Nevertheless, the remaining canopy provides habitat for a range of open woodland bird species and foraging opportunities for possums and gliders. The often dense River Oak canopy in riparian areas provides shelter for a variety of bird species, especially those associated with aquatic habitats.

The open grassland areas dominated by exotic species have limited habitat value, except for macropods, granivorous birds such as finches and common insectivorous birds adapted to grasslands such as Yellow-tailed Thornbills and Magpies.

There are limited opportunities for reptiles with few logs on the ground or surface rocks for habitat.



The area contains old growth trees with hollows suitable for a variety of wildlife, but they are scattered in a cleared landscape with limited habitat available to denning or nesting species that depend on woodlands and forests. The area lacks patches of dense shrub cover required by some bird species for nesting and foraging.

## 9.5 DESIRED OUTCOME

The broad desired outcome of the management of the conservation offset portions is to improve the overall ecological health, value and connectivity of these areas. Focus and priority will be given to Endangered Ecological Community areas to return them to a condition that is equivalent or better than local reference site condition. The following broad objectives will be applied to all three offset portions:

- Overall, offset condition is equivalent or better than local reference site condition.
- Improving the health of native vegetation:
  - Revegetation of cleared areas.
  - Progressively reduce the prominence of introduced species and replace with locally occurring native species.
  - Encourage natural resilience, regeneration and recruitment processes.
  - Provide a range of habitat resources for native fauna.
- Improving the structural diversity
  - Provide a range of vegetation age classes.
  - Conserve vegetation strata within remnant areas.
  - Revegetation of cleared areas targeting the replacement of understory, mid story and over story species.
- Improving the species diversity
  - Conserve / manage vegetation diversity within remnant areas.
  - Revegetation of cleared areas targeting the replacement of a range of locally occurring native species from understory, mid story and over story classes.
- The active management of threatening processes including:
  - Grazing.
  - Clearing (removal of old, large habitat trees)
  - Removal of firewood / bushrock
  - Bushfire.
  - Unauthorised access.
- Increasing connectivity between remnant / offset areas:
  - Establish a series of patches / corridors to progressively link remnant / offset areas (addressed in Section 3)
- Provide for long term conservation:
  - Local government zoning.
  - Voluntary Planning Agreement.

While particular focus will be on the management of Endangered Ecological Communities, the above measures will generally and progressively apply to all areas within the offset portions.

## 9.6 LONG TERM SECURITY OF OFFSET AREAS

This section outlines the efforts taken by CVO to secure biodiversity offset areas to meet obligations under approvals issued in accordance with the Environmental Protection and Biodiversity Conservation Act (Commonwealth) and the Planning and Assessment Act (NSW).

Securing conservation/biodiversity offsets is a requirement of condition 39, Schedule 3 of the NSW Project Approval (06\_0295) dated 6 January 2010 and condition 1 of the Approval granted under the Commonwealth Environment Protection and Biodiversity Conservation Act, 1999 (EPBC 2006/3196) on 18 February 2010.

Condition 39 (Schedule 3) of PA 06\_0295 reads:

*39. Within 2 years of the date of this approval, the Proponent shall make suitable arrangements to provide appropriate long term security for the offset areas to the satisfaction of the Secretary.*

Condition 1 of the EPBC approval 2006/3196 reads:

*1. The person taking the action must prepare a plan to offset the loss of 23 ha of the White Box-Yellow Box-Blakely's Red Gum grassy woodland and derived native grassland ecological community.*

*The plan must include:*

- *The desired outcomes of implementing the plan;*
- *The short (12 months from the date of the approval), medium (five years from the date of the approval) and long term measures that will be employed to implement the plan;*
- *Details of how the person taking the action will provide for the long term security of the offset areas and details of the timing of when this will occur;*
- *Detailed performance and completion criteria for the implementation of the plan, including details of methods to rehabilitate areas of the ecological community, and methods to control weeds, feral animals, grazing, access and bushfires;*

*The plan must be submitted to the Minister within 18 months of the date of this approval and prior to any subsidence impacts on the White Box-Yellow Box-Blakely's Red Gum grassy woodland and derived native grassland ecological community. The plan must be approved by the Minister and the approved plan must be implemented.*

(Note: The third dot point above is highlighted in red as it relates specifically to this section.)

The Plan (LBMP) was submitted to the Department of Environment, Water Heritage and the Arts and NSW Department of Planning on 30 June 2011.

The June 2011 LBMP presented — in the form of an "Action Plan" — the following details (among others) in respect of the long term security of the offset areas:

(a) within one year of approval of the June 2011 LBMP, CHPL will take the following action:

*Liaise with Cabonne Council and Blayney Shire Council regarding the re-zoning of Offset areas for conservation. Initiate process for rezoning. Consideration will be given to re-zoning as Zone E2 Environmental – Conservation or Zone E3 Environmental Management in liaison with Councils.*

The "Performance measure" indicated for this action is stated to be:

*Area re-zoned by the 6th of January 2012;*

- (b) within one year of approval of the June 2011 LBMP, CHPL will take the following action:

*Investigate options (such as voluntary conservation agreements, covenant etc) for the long term conservation (in perpetuity) of offset areas.*

The "Performance measure" indicated for this action is stated to be:

*Preferred option selected and implemented by the 6th of January 2012*

and

- (c) within one year of approval of the June 2011 LBMP, CHPL will take the following action:

*To ensure implementation of the plan, a security deposit will be lodged with I&I NSW.*

The "Performance measure" indicated for this action is stated to be:

*Security lodged within 6 months of approval of Land and Biodiversity Management Plan (Landscape Management Plan).*

Measures taken since 2011 to implement these actions are addressed below.

The Department of Sustainability, Environment, Water, Population and Communities (DSEWP&C) wrote to CVO on 9 September 2011 expressing concerns regarding the details for the long term security of the offset areas.

CVO replied to DSEWP&C on 23 September 2011 regarding its proposal to secure the required offset in part through use of a Voluntary Planning Agreement. CVO was advised that this met the requirements of DSEWP&C pending approval from NSW Department of Planning Infrastructure.

On 4 January 2012 CVO wrote to NSW Department of Planning and Infrastructure outlining its proposal to secure the offset required by condition 39 of the Project Approval.

On 9 March 2012 CVO advised the DOP by email of the reasoning behind the use of the VPA according to legal advice dated 24 February 2012 from Blake Dawson (now Ashurst Australia).

A VPA was considered in 2012 to be an appropriate mechanism to secure the biodiversity offset for the following reasons:

- (a) the legal status and operation of a VPA is clear under the Environmental Planning & Assessment Act 1979 (EP&A Act);
- (b) it has the ability to ensure the long term protection of the offset through a number of different mechanisms including registration of the VPA on title and the use of terms requiring the registration of positive covenants;
- (c) it is a NSW mechanism for securing biodiversity offsets which is accepted by the Federal Department of Sustainability, Environment, Water, Population and Communities (SEWPAC)
- (d) notification requirements provide enhanced public accountability; and
- (e) there has been considerable time, effort and expense already incurred in preparing the draft VPA.

#### BENEFITS OF USING VPA TO SECURE BIODIVERSITY OFFSETS

Benefits for using a VPA are considered to be:

- Legal status and operation of VPA
- Provision of long term security
- VPA allows for dedication of lands
- Recognition and use by Department of Planning and Environment
- Approval of VPAs by the Federal Minister and Department of Environment and Energy (DE&E)
- Public accountability

These benefits are outlined below:

#### **Legal status and operation of VPA**

A VPA is a mechanism created under the EP&A Act which may be used for securing biodiversity offsets. It is a voluntary agreement between a planning authority and a developer under which a developer agrees to provide a material public benefit to be used for or applied for a public purpose. Relevantly a public benefit includes the conservation or enhancement of the natural environment.

One benefit of a VPA is that its legal status in the planning system is clear and there are statutory controls in relation to its content. For example, a VPA is required to provide the following information:

- (a) the time by which the provision is to be made;
- (b) the manner by which the provision is to be made;
- (c) a mechanism for the resolution of disputes under the agreement; and
- (d) the enforcement of the agreement by a suitable means in the event of a breach of the agreement by the developer.

These statutory requirements ensure that VPAs are clear in their operation and ensure the VPA fulfils the purpose for which it was created.

#### **Provision of long term security**

The EP&A Act provides that a VPA can be registered on title so that it becomes binding on and enforceable against subsequent owners of the land as if each owner had entered into the VPA:

Section 93H of the Act is an important feature in the long term protection of an offset as it ensures that even if the land the subject of the offset is sold the land is still subject to the requirements of the VPA. We note that the draft VPA we prepared provides for registration of the VPA on title.

Another benefit of a VPA is that it can be used together with other legal mechanisms to provide additional protection to the offset. For example, the draft VPA we prepared requires that a section 88E instrument under the Conveyancing Act 1919 be registered prior to the transfer of the Offset Areas which will restrict the use of the Offset Areas for conservation purposes only.

VPAs also offer the flexibility to include terms that further ensure the long term protection of the offset area. For example, the draft VPA we prepared includes a clause stating that the landowner will not transfer the Offset Areas without the written permission of the Minister. Further, it also sets out a mechanism for CHPL and the Minister to agree on a transferee within 12 months of mine closure. In the event that agreement cannot be reached the VPA provides that the Minister is to nominate the transferee. This ensures that the transferee is suitable and acceptable to the Minister.

The benefits of a covenant is that there is a strong legal framework to enforce conditions. For example the Minister can undertake the work required to be undertaken by the landowner and then recover costs; the Minister can seek a judgment and register a charge



over the land, or have the land conveyed or transferred to the Minister; and the Minister can seek an injunction to prevent or rectify a breach and can obtain damages: Conveyancing Act 1919 sections 88F, 88H and 88I.

#### **VPA allows for dedication of lands**

During the life of the Cadia East Project, CVO will actively manage the Offset Areas in accordance with the Landscape Management Plan and the Approval. However, after closure of the mine it is sensible that the Offset Areas be transferred to an appropriate party to act as the custodian of the Offset Areas.

A VPA allows for the dedication of the Offset Areas to be provided in the agreement itself, which is not the case for a Conservation Agreement for example.

#### **Recognition and use by Department of Planning and Environment**

The Department of Planning and Environment is party to a number of VPAs and is familiar with their negotiation and operation. Accordingly, in our view, the use of a VPA where the Department of Planning and Environment is a party results in a more efficient process for all involved.

#### **Approval of VPAs by the Federal Minister and DE&E**

The use of VPAs to secure biodiversity offsets required for projects in NSW is recognised by the Federal Minister and Department of Environment and Energy. For example, in the Federal Minister's approval for the Duralie Coal Extension Project, which he granted on 22 December 2010, a VPA was only one of the three mechanisms which he stipulated would be satisfactory for securing protection of a required offset area. The Federal Minister stipulated this in condition 16 of his approval. It states:

*16. Within one year of the commencement of the action, the person taking the action must demonstrate in writing to the satisfaction of the Minister that a conservation covenant or similar instrument has been registered on the title/s of land containing the offset area required in Condition 12. This must provide for the protection of this offset area in perpetuity through one of the following means:*

- *a Conservation Agreement under s 69 of the National Parks and Wildlife Act 1974 (NSW),*
- *placing a restrictive or public positive covenant over the offset land under s 888-E of the Conveyancing Act 1919 (NSW), or*
- *a Planning Agreement under s 93F(1) of the Environmental Planning and Assessment Act 1979 (NSW)*

#### **Public accountability**

A VPA increases public accountability as it cannot be entered into, or amended or revoked, unless public notice has been given of the proposed agreement, amendment or revocation and a copy of the proposed agreement, amendment or revocation has been made available for inspection by the public for a period of not less than 28 days: s 93G.

Further, a planning authority proposing to enter into a VPA, or an agreement that revokes or amends a VPA, must prepare a written statement (explanatory note) that:

- (a) summarises the objectives, nature and effect of the proposed agreement, amendment or revocation; and

- (b) contains an assessment of the merits of the proposed agreement, amendment or revocation, including the impact (positive or negative) on the public or any relevant section of the public.

The explanatory note must be prepared jointly with the other parties proposing to enter into the VPA. A copy of the explanatory note must be exhibited with the copy of the proposed agreement, amendment or revocation when it is made available for inspection by the public.

The Black Rock range area was zoned E2 Environmental Conservation with 18 January 2013 commencement of the Cabonne Local Environmental Plan 2012

CVO received advice from DP&I on 5 June 2013 that the VPA was considered to be an appropriate means for securing the offset area where it was stated that "I see no reason why this should not be an appropriate mechanism for securing the offsets for the Cadia East Project."

On 21 May 2013 DSEWP&C advised CVO that details and mechanisms for securing the long term protection of the offset areas still remained unresolved/

CVO in response by letter dated 14 June 2013 advised DSEWP&C that it had become aware of discrepancies in areas of the offset areas as proposed in the offset plan.

CVO advised DoE on 14 June 2013 of progress with securing the offset and that the LBMP as posted on the Cadia Valley website was considered appropriate for reconsideration for the purposes of the EPBC approval.

On 14 March 2014 the Commonwealth Department of Environment (DoE) wrote to CVO alleging a breach of condition of 1 attached to the EPBC approval 2006/3196.

CVO responded on 7 April 2014 with the view that CVO had not contravened Condition 1 of the EPBC Approval, citing correspondence referenced above.

A security deposit was lodged with the Department of Planning on 14 May 2014 as required by condition 40, schedule 3 of the Project Approval (PA 06\_0295).

An application to modify the Project Approval was lodged with DPE on 25 May 2015. The DoP assessment report on the application stated that:

*In finalising in-perpetuity security arrangements for the biodiversity offset strategy CVO become aware that some small land parcels within the Black Rock Range and Belubula River/Flyers Creek offset areas are not able to be secured as planned due to a number of cadastral issues.*

The modification proposed approximately:

- 14.2 ha being removed from the Belubula River/Flyers Creek offset area;
- 16.5 ha being removed from the Black Rock Range offset area; and
- 60.7 ha being added to the offset strategy from Cadia's 'Stratton Vale' property

The modification was approved on 4 August 2015 which adjusted the offset areas as follows:

Table 14: Biodiversity Offset Strategy

Area	Minimum Size*
Black Rock Range Offset Area – Enhancement Area	647 ha
Black Rock Range Offset Area – Revegetation Area	162 ha
Flyers Creek and Belubula River Offset Area	97 ha
Stratton Vale Offset Area	60 ha
<b>Total</b>	<b>966 ha</b>

\*Subject to final survey constraints



## Cadia Valley Operations

The Black Rock Range land (lot 21) was formally acquired on 26 April 2016. All offset areas are under the ownership of Contango Agricultural Company which is a related body corporate to Cadia Holding Pty Limited.

The Department of the Environment and Energy was advised of the modification in the Annual Report dated 19 May 2016.

In May 2016 CVO arranged for surveys of the other offset areas to be undertaken. Survey for the 'Stratton Vale' area was completed in August 2016. Record winter rainfalls have delayed surveys of the Belubula River frontage area for the Flyers Creek offset area. The subdivision plans for Black Rock range (lot 21 DP 1204782) and Stratton Vale (subdivision of are attached. The subdivision plan for the Belubula and Flyer Rivers offset area in the subdivision of lot 1422 DP 1168271 as generally indicated in the project approval will be attached once completed.

Once the plans of subdivision are finalised applications will be made to the relevant council to progress the E2 zoning for the 'Stratton Vale' and Belubula River/Flyers Creek offset areas, consistent with the zoning of the BRR area and for the VPA to progress through the NSW Department of Planning and Environment.

### PROPOSED ACTIONS

Action	Estimated timetable*
Completion of survey of the Flyers Creek and Belubula River offset area that meets the area requirements of Table 14 Cadia East Project Approval (06_0295).	November 2016
Subdivision Certificate Blayney Council	December 2016
Subdivision plan registration NSW LPI	February- March 2017
Resubmission of the updated VPA to the Department of Planning and Environment to incorporate the Stratton Vale offset area and include finalised survey plans	Resubmission of updated VPA to DP&E: November 2016  Submission of Subdivision Plans: After registration (March 2017)
Submission of Flyers Creek and Stratton Vale offset areas following subdivision plan finalisation of these two areas to Blayney Council for rezoning consideration to <i>Zone E2 Environmental Conservation</i> .	March 2017

\* Timeframes are subject to procedures by various agencies and as such are estimates only

Correspondence between Cadia Valley Operations and the Federal Department of the Environment and Energy relating to the establishment of the Voluntary Planning Agreement and compliance with the federal project approval conditions are located in Appendix F

### 9.7 CONSERVATION BOND

Schedule 3, Condition 40 of the Cadia East Project Approval requires that a conservation bond be lodged with the Department of Planning and Environment. A detailed and costed conservation estimate was submitted to the Department on 3 September 2013 and was subsequently accepted (email dated 29 November 2013). The bond dated 14 May 2014 provides for the full cost of management and restoration of offset areas over the life of the project.

## 9.8 ROLES AND RESPONSIBILITIES

The following roles and responsibilities relate to the management of conservation offset areas and the implementation of this management plan.

Role	Responsibility
CVO General Manager	<ul style="list-style-type: none"> <li>- Compliance with project approval and EPBC requirements.</li> <li>- Overall implementation of the Land and Biodiversity Management Plan.</li> <li>- Ensure sufficient resources are allocated for the implementation of this plan</li> </ul>
Manager – Health, Safety, Environment, Social Responsibility and Training (HSESRT)	<ul style="list-style-type: none"> <li>- High level endorsement of budgets, schedules and works.</li> <li>- High level tracking of compliance with the Land and Biodiversity Management Plan.</li> <li>- Internal approval of the Land and Biodiversity Management Plan.</li> <li>- Escalate any risks of non-compliance.</li> <li>- Ensure sufficient resources are allocated for the implementation of this plan</li> <li>- Approve monitoring results / reports for publishing</li> </ul>
Manager – Approvals	<ul style="list-style-type: none"> <li>- Facilitate / arrange and required project modifications.</li> <li>- Arrange any formal compliance audits.</li> <li>- Arrange long term security of offset areas.</li> <li>- Escalate any risks of non-compliance</li> </ul>
Superintendent – Environment and Community Relations	<ul style="list-style-type: none"> <li>- Approval of budgets, schedules and works.</li> <li>- Periodically review compliance with the Land and Biodiversity Management Plan.</li> <li>- Review and update of the Land and Biodiversity Management Plan.</li> <li>- Escalate any risks of non-compliance</li> <li>- Review and approve monitoring results and reports</li> </ul>
Environmental Scientist (Land and Biodiversity (L&B))	<ul style="list-style-type: none"> <li>- Planning, Scheduling, costing and implementing the Land and Biodiversity Management Plan.</li> <li>- Supervision of field works.</li> <li>- Conducting field monitoring and recording of actions and progress against the Land and Biodiversity Management Plan.</li> <li>- Reporting as required by the Land and Biodiversity Management Plan.</li> <li>- Escalate any risks of non-compliance</li> </ul>
Contractors	<ul style="list-style-type: none"> <li>- Undertake field based works in accordance with directions provided and in accordance with the Land and Biodiversity Management Plan.</li> </ul>



## 9.9 ACTION PLANS

The following section provides a series of specific action plans for key operational aspects relating to the offset areas including:

1. Revegetation of cleared / grazed / riparian areas	2. Management of remnant vegetation
3. Bushfire Management	4. Weed management
5. Pest management	6. Fauna Management
7. Unauthorised access (including livestock grazing)	8. Erosion
9. European / Aboriginal Heritage	10. Resource salvage

The action plans:

- Outline the current state and the future desired state for each management aspect.
- Provide specific and measureable management actions, responsibilities and timeframes.
- Identifies performance measures and how the delivery of the plan will be monitored and reported.
- Provides a risk assessment for each management aspect, identifies corrective actions, contingencies, responsibilities and timing. (Refer to risk matrix – Section 4.0)
- Assesses a range of possible contingencies based on a 'worst case scenario' and justifies the preferred option to achieve the desired outcome (assessment matrix embedded in action tables).

### Clarification of timing

Annual	Action to occur on an annual basis
1 year	Action to be undertaken within 1 year of the approval of the plan (approved by both the NSW Department of Planning and Environment and the Federal Department of the Environment and Energy)*.
2-5 years	Action to be undertaken within 2-5 years of the approval of the plan (approved by both the NSW Department of Planning and Environment and the Federal Department of the Environment and Energy)*.
5-10 years	Action to be undertaken within 5-10 years of the approval of the plan (approved by both the NSW Department of Planning and Environment and the Federal Department of the Environment and Energy)*.
* Refer to 'Document Status and History' located inside the cover of this plan.	
# signifies a recurring action as per the specified frequency in the action plan.	

### Acronyms

BRR = Black Rock Range

FC = Flyers Creek Portion

SV = Stratton Vale Portion

### Annual reporting requirements

EPBC Annual Report (due before 22 May each year)

NSW Project Approval (AEMR) (nominally due before 31 October each year)



## Cadia Valley Operations

<b>Management Aspect : 1. Revegetation of cleared / grazed / riparian areas</b>								
<b><u>Current Situation</u></b>  Areas cleared for agricultural purposes are present within each conservation offset portion including the eastern portions of Black Rock Range and all of the Flyers Creek and Stratton Vale areas. These open areas have (in places) remnant canopy trees, an absent mid / shrub story and a highly disturbed understory dominated by introduced grasses and weeds.			<b><u>Desired Outcome</u></b>  Areas of EEC are protected, enhanced and expanded (revegetation of suitable areas to an EEC woodland community)  Areas are rehabilitated with locally occurring native species, suitable to the soil type, aspect and topography (through either direct seeding or tubestock planting) to reinstate species and structural diversity. Areas are similar (or are evolving towards) identified reference sites comprising the best local example of the same vegetation type.					
<b><u>Management Actions / Schedule</u></b>			<b><u>Applies to.....</u></b>			<b><u>Responsibility / Timing</u></b>		
			BRR	FC	SV	Responsibility	Annual	1 year
Assess and document the resilience of offset areas and the potential for natural regeneration. Areas assessed with high resilience are left to naturally regenerate, observed and monitored for response.			X	X	X	Environmental Scientist (L&B)		X
Implement an annual schedule of direct seeding and Tubestock planting (season dependent). refer to section 9.14 for further explanation, species lists, methodology etc) Nominally >2000 tubestock planted or > 5ha direct seeded per year (season dependent)			X	X	X	Environmental Scientist (L&B)	X	
Implement a native seed collection program, to collect seed for future revegetation programs. Seed to be collected from within 20 kilometres of the CVO mine lease boundary. Maintain a seed store database			X	X	X	Environmental Scientist (L&B)	X	
Annual inspection of tubestock success / seedling density			X	X	X	Environmental Scientist (L&B)	X	
Independent (consultant) annual assessment (representative sites) of revegetation success against reference site condition. refer to Section 9.10 for further explanation			X	X	X	Environmental Scientist (L&B)	X	
Fertilisers will not be used in any offset revegetation programmes			X	X	X	Environmental Scientist (L&B)	X	
# signifies a recurring action as per the specified frequency in the action plan.								



## Cadia Valley Operations

Management Aspect (Continued) : 1. Revegetation of cleared / grazed / riparian areas									
<u>Performance Measures</u>  - Demonstrated progression towards reference site condition (refer to Section 9.10).  >2000 tubestock planted per reporting period (23 Feb to 22 Feb) (season dependent) or  >5ha direct seeded per reporting period (23 Feb to 22 Feb) (season dependent)  -Seed collection contract (active agreement / purchase order) in place each season.     >50% tubestock survival rate after 1 year  >3 direct seeded shrubs per 10 linear metres (after 2 years)  >1 direct seeded eucalyptus per 10 linear metres (after 2 years)				<u>Monitoring</u>  Annual records of tubestock planted, hectares sown will be kept and reported annually.  An annual inspection / assessment of tubestock survival and seedling density will be undertaken and reported annually.  Annual assessment of representative revegetated sites against reference site condition. (refer to section 9.10 for further explanation)  <u>Reporting</u>  Annual records of tubestock planted, survival rates, hectares sown, seedling density will be kept and reported in the EPBC Annual report and the CVO AEMR.  Annual assessment of representative revegetated sites against reference site condition will be reported in EPBC Annual report and the CVO AEMR					
Risk Assessment									
Unwanted Event	Inherent Risk			Mitigation and Corrective Actions	Responsibility	Timing	Final Risk		
	Consequence	Likelihood	Level				Consequence	Likelihood	Level
Failure of direct seeding	Minor	Occasional	Med	Defer direct seeding if seasonal conditions are poor. Re-seeding as required to meet targets	Environmental Scientist (L&B)	Annual	Minor	Unlikely	Low
Failure of tubestock	Minor	Occasional	Med	Defer tubestock planting if seasonal conditions are poor Re-planting as required to meet targets	Environmental Scientist (L&B)	Annual	Minor	Unlikely	Low
Rehabilitation monitoring not progressing towards reference site condition.	Minor	Occasional	Med	Assess individual factors from monitoring. Document improvement actions in annual report and implement.	Environmental Scientist (L&B)	Annual	Minor	Unlikely	Low
Insufficient local seed for revegetation.	Minor	Occasional	Med	Consider extending collection areas to >20km Source alternate contractor for seed collection.	Environmental Scientist (L&B)	Annual review of seed store	Minor	Unlikely	Low



## Cadia Valley Operations

Management Aspect (Continued) : 1. Revegetation of cleared / grazed / riparian areas					
<u>Contingency Effectiveness Assessment</u>					
Scenario : Failure of revegetation works. Targets not met / no (or poor) progression towards reference site condition					
<p><b>Contingency Assessment Matrix.</b> The following matrix is used to assess the likely success of the contingency measure. High Impact means that the contingency is likely to lead towards / deliver the desired outcome, while low impact is unlikely to meet the desired outcome.</p>	Contingency Considered	Advantages	Disadvantages	Matrix	Priority
	Plant during every season – even in poor conditions	Meet revegetation performance measures	High risk of failure	4	Low
	Do nothing	Reduced cost / effort	No change in success	3	Low
	Assess contributing factors and adjust revegetation techniques and processes	Higher chance of success	Additional effort and cost	2	High
	Defer revegetation works if there are poor seasonal conditions.	Higher chance of success	Not meet revegetation performance measures	1	High
	Allow natural regeneration to occur in areas of high resilience	Higher chance of revegetation success. Low cost and effort.	Progress can be slow, triggers may be required to stimulate regeneration	1	High
	Replanting / re-seeding to meet targets	Meet revegetation performance measures	Additional effort and cost	2	High
	Allow natural regeneration to occur in all cleared areas.	Reduced cost / effort	Not meet revegetation performance measures in low resilience areas.	3	Low



## Cadia Valley Operations

<b>Management Aspect : 2. Management of Remnant Vegetation</b>								
<b><u>Current Situation</u></b>  The vast majority of the Flyers Creek and Stratton Vale portions of the offset areas consist of remnant canopy eucalyptus spp. with little to no native shrub or understory species. These areas are subject to management aspect 1 – Revegetation of cleared / grazed / riparian areas.  A large portion of Black Rock Range consists of healthy remnant bushland / woodland with intact groundcover, shrub and canopy strata and very few weeds.				<b><u>Desired Outcome</u></b>  Areas of EEC are protected, enhanced and expanded  Maintain the health and resilience of remnant areas.				
<b><u>Management Actions / Schedule</u></b>	<b><u>Applies to.....</u></b>			<b><u>Responsibility / Timing</u></b>				
	BRR	FC	SV	Responsibility	Annual	1 year	2-5 years	5-10 years
Undertake weed mapping of remnant areas, identifying weeds present, degree of infestation, priority areas. Areas re-mapped every 5 years.	X			Environmental Scientist (L&B)			X <sup>#</sup>	
Undertake annual inspection of remnant areas for weeds to determine priority control areas – focus on edges of remnant areas which are most susceptible to weed invasion.	X			Environmental Scientist (L&B)	X			
Implement low impact 'bush regeneration' principles for weeds in remnant areas. Ongoing on annual basis once commenced.	X			Environmental Scientist (L&B)			X <sup>#</sup>	
Use low impact, low intensity mosaic burning practices to promote a variety of vegetation age classes and structural diversity. Biennial program (season dependent) as per bushfire management plan (separate document).	X			Environmental Scientist (L&B)	Biennial			
Investigate wider weed sources, develop and implement controls to reduce future weed burden.	X			Environmental Scientist (L&B)			X	
Undertake vegetation mapping and assessment every 5 years (independent consultant) to determine structural / floristic changes, achievement / progression towards all desired outcomes and to make recommendations for future implementation.	X	X	X	Environmental Scientist (L&B)				X <sup>#</sup>
# signifies a recurring action as per the specified frequency in the action plan.								



## Cadia Valley Operations

Management Issue (Continued) : 2. Management of Remnant Vegetation									
<u><b>Performance Measures</b></u>  Annual inspection completed and documented.  Biennial low intensity burning undertaken as per Bushfire Management Plan (season dependent)  Weed mapping completed  Contract bush regenerations specialists engaged (contract / purchase order)  5 year mapping and assessment completed – showing progress towards all desired outcomes				<u><b>Monitoring</b></u>  Annual weed inspections documented.  Any low intensity burns are documented (photographs). Monitoring program commenced.  Internal monitoring of bush regeneration works and progress					
				<u><b>Reporting</b></u>  Annual inspections documented. Any key issues reported in EPBC Annual report.  Any low intensity burns are documented (photographs) and reported in the EPBC Annual report and the CVO AEMR.  5 year mapping and assessment completed – summary provided in the EPBC Annual report and the CVO AEMR.					
Risk Assessment									
Unwanted Event	Inherent Risk			Mitigation and Corrective Actions	Responsibility	Timing	Final Risk		
	Consequence	Likelihood	Level				Consequence	Likelihood	Level
Remnant areas become weed infested resulting in loss of biodiversity.	Moderate	likely	Med	Annual inspection, weed mapping. Bush regeneration / weed control Identification / control of weed sources 5 year assessment and implementation of recommendations	Environmental Scientist (L&B)	Annual	Minor	unlikely	Low
Remnant areas loose structural and species diversity due to too frequent / infrequent / high intensity fire.	Moderate	likely	Med	Low intensity burns (biennial). Conformance with Bushfire management plan and burn regime.	Environmental Scientist (L&B)	Biennial	Minor	unlikely	Low





## Cadia Valley Operations

Management Issue (Continued) : 2. Management of Remnant Vegetation					
Contingency Effectiveness Assessment					
Scenario : Degradation of remnant areas due to weeds, fire regime / intensity. Loss of structural / species diversity.					
<p><b>Contingency Assessment Matrix.</b> The following matrix is used to assess the likely success of the contingency measure. High Impact means that the contingency is likely to lead towards / deliver the desired outcome, while low impact is unlikely to meet the desired outcome.</p>	Contingency Considered	Advantages	Disadvantages	Matrix	Priority
	Do nothing	Low cost / effort	Possible loss of biodiversity	3	Low
	Implement higher intensity (controlled) fires	More thorough fuel / hazard reduction	Possible loss of biodiversity	4	Low
	Implement no burning – increasing risk of uncontrolled wildfire.	Low cost / effort	High risk of loss of biodiversity / vegetation structure	3	Low
	Use chemical weed (spray) control methods in remnant areas	Efficiency in application / result	Possible loss of biodiversity / non target damage.	3	Low
	Implement low intensity burns	Promotes species and structural diversity.	Less thorough fuel reduction	2	High
	Undertake inspections / weed mapping and adjust management actions	Allows management / seasonal adjustment.	Higher cost / effort	2	High
	Implement low impact bush regeneration techniques	No non-target damage	Higher Cost / effort	2	High
	Undertake 5 yearly vegetation mapping and assessment for all offset areas.	Demonstrates progression towards desired outcome / corrective actions. Independent assessment and advice	Higher Cost / effort	2	High
	Do not undertake monitoring	Lower cost / effort	No independent advice / input Unknown performance of management measures	3	Low



## Cadia Valley Operations

Management Aspect : 3. Bushfire Management								
<b>Current Situation</b>  There is no current active bushfire management within / in the vicinity of offset portions. As the offset areas are generally un-grazed there is an annual (seasonal) risk of uncontrolled bushfire impact on the offset areas.  2 separate bushfire management plans have been developed; 1 addresses bushfires within the Black Rock Range Offset portion; the second addresses bushfire fuel management in the vicinity of the Flyers Creek and Stratton Vale offset portions.				<b>Desired Outcome</b>  Implement the 2 bushfire management plans to reduce the risk of a high intensity uncontrolled bushfire from impacting the offset areas resulting in biodiversity loss.  Use low intensity fire as a tool to increase structural and species diversity.				
Management Actions / Schedule	Applies to.....			Responsibility / Timing				
	BRR	FC	SV	Responsibility	Annual	1 year	2-5 years	5-10 years
Undertake bushfire fuel assessments to assist in identifying priority areas for low intensity burns. Assessment undertaken every 2-5 years.	X			Environmental Scientist (L&B)			X <sup>#</sup>	
Implement low intensity burns as per BRR bushfire management plan (season dependent) (currently scheduled every 2 years)	X			Environmental Scientist (L&B)	Biennial			
Implement fuel reduction regimes in vicinity of Flyers Creek and Stratton Vale offset portions as per bushfire fuel reduction plan. (season dependent)		X	X	Environmental Scientist (L&B)	X			
Undertake a literature review on the use of low impact, low intensity mosaic burning practices to stimulate regeneration within cleared / grazed offset areas. (season dependent)	X	X	X	Environmental Scientist (L&B)				X
Annual maintenance of fire trails. Contractor engaged to undertake prior to bushfire season in accordance with RFS guidelines.	X			Environmental Scientist (L&B)	X			
Upgrade fire trail signs as per RFS guidelines	X			Environmental Scientist (L&B)		X		
# signifies a recurring action as per the specified frequency in the action plan.								





## Cadia Valley Operations

Management Issue (Continued) : 3. Bushfire Management									
<u>Performance Measures</u>  Fuel assessment completed and documented.  Low intensity burning undertaken (season dependent) as per bushfire management plan  Annual fuel reduction works implemented in vicinity of Flyers Creek and Stratton Vale offset portions as per bushfire fuel reduction plan. (season dependent)  Annual fire trail maintenance completed (Contractor engaged)  Literature review completed on the use of fire in cleared / grazed areas to stimulate regeneration.				<u>Monitoring</u>  Any low intensity burns / fuel reduction work are documented (photographs).  Fire trails checked prior to bushfire season  <u>Reporting</u>  Any low intensity burns are documented (photographs) and reported in the EPBC Annual report and the CVO AEMR.					
Risk Assessment									
Unwanted Event	Inherent Risk			Mitigation and Corrective Actions	Responsibility	Timing	Final Risk		
	Consequence	Likelihood	Level				Consequence	Likelihood	Level
Uncontrolled wildfire resulting in loss of biodiversity.	Major	Occasional	High	Low intensity burns. Fuel reduction activities RFS / emergency response. Post wildfire - monitoring / assessment / weed control	Environmental Scientist (L&BM) RFS	Annual	Major	unlikely	Med
Fire trails un-usable in event of a wildfire	Moderate	Occasional	Med	Annual maintenance of fire trails Annual inspection prior to fire season.	Environmental Scientist (L&BM)	Annual	Moderate	unlikely	Med



## Cadia Valley Operations

Management Issue (Continued) : 3. Bushfire Management					
<u>Contingency Effectiveness Assessment</u>					
Scenario : Uncontrolled wildfire resulting in widespread loss of vegetation and loss of biodiversity.					
<p><b>Contingency Assessment Matrix.</b> The following matrix is used to assess the likely success of the contingency measure. High Impact means that the contingency is likely to lead towards / deliver the desired outcome, while low impact is unlikely to meet the desired outcome.</p>	Contingency Considered	Advantages	Disadvantages	Matrix	Priority
	Do nothing	Low cost / effort	Possible loss of diversity	3	Low
	Implement higher intensity or higher frequency (controlled) fires. Better fuel / risk reduction	More thorough fuel reduction	Possible loss of structural and species diversity	4	Low
	Implement no burning – increasing risk of uncontrolled wildfire.	Low cost / effort	High risk of uncontrolled wildfire / loss of biodiversity	3	Low
	Implement low intensity burns	Promotes species and structural diversity.	Less thorough fuel reduction	2	High
	Implement fuel reduction measures (Flyers Creek / Stratton Vale Portions).	Reduces risk of catastrophic fire.	Higher cost / effort	2	High
	Following a catastrophic wildfire.....do nothing	Low cost / effort	Possible loss of diversity	3	Low
	Following a catastrophic wildfire.....monitoring / assessment / weed control.	Promotes vegetation recovery	Higher cost / effort	2	High



## Cadia Valley Operations

Management Aspect : 4. Weed Management								
<b>Current Situation</b>  Weed management programs have been in place for many years for the three offset portions, as such the noxious weed burden is currently considered low.  Remnant areas located on Black Rock Range are least prone to weed establishment due to the strong competition from native species; as such this area is most vulnerable to weed invasion on the bushland / woodland edges, however bird spread weed species have the opportunity to establish throughout the area.  Previously cleared and grazed areas located within the three offset portions are most vulnerable to weed invasion and currently have a high incidence of introduced grass and broadleaf weeds with few native species.				<b>Desired Outcome</b>  The ultimate aim is that weeds do not impact on biodiversity values of offset areas.  Remnant areas are kept clean with a low weed incidence.  Weeds are progressively replaced with desirable, native, competitive species.  Noxious and high priority weeds are controlled through the implementation of annual weed management programmes to progressively reduce weed populations, the risk of spread and management costs.  Literature reviews are conducted to determine methods to progressively reduce the incidence of grass and broadleaf weeds (in previously cleared and grazed areas) and to encourage native grasses, herbs and forbs.				
Management Actions / Schedule	Applies to.....			Responsibility / Timing				
	BRR	FC	SV	Responsibility	Annual	1 year	2-5 years	5-10 years
Undertake weed mapping of offset areas to determine areas, degree of infestation, weed species present. Mapping is used to determine priority locations. Areas re-mapped every 5 years.	X	X	X	Environmental Scientist (L&B)			X <sup>#</sup>	
Conduct annual inspection (nominally in August) to plan spring and summer weed control programmes	X	X	X	Environmental Scientist (L&B)	X			
Annual contract in place for the control of noxious and high priority weeds (refer to Section 9.11 for a list of weeds and control measures)	X	X	X	Environmental Scientist (L&B)	X			
Weeds are progressively replaced with native competitive species. (through planting, seeding, selective weed control, encouraging native species) (refer to Management Aspect 1)	X	X	X	Environmental Scientist (L&B)	X			
Undertake literature reviews to determine methods of progressively reducing the incidence of grass and broadleaf weeds (in previously cleared and grazed areas) and to encourage native grasses, herbs and forbs.	X	X	X	Environmental Scientist (L&B)				X
# signifies a recurring action as per the specified frequency in the action plan.								



## Cadia Valley Operations

Management Issue (Continued) : 4. Weed Management									
<p><b><u>Performance Measures</u></b></p> <p>Weed mapping completed as per schedule (every 5 years). Ongoing weed mapping verifies reducing weed burden over time.</p> <p>Annual contracts in place for the control of noxious and high priority weeds (refer to Section 9.11).</p> <p>Works undertaken to replace weeds with desirable native plants (eg planting, seeding, selective weed control (bush regeneration principles), encouraging native species) (as per Management Aspect 1)</p> <p>Literature reviews conducted to determine methods of progressively reducing the incidence of grass and broadleaf weeds (in previously cleared and grazed areas) and to encourage native grasses, herbs and forbs.</p>				<p><b><u>Monitoring</u></b></p> <p>Field monitoring conducted on contract compliance – any non-conformances corrected. Monitoring of hours vs weed management budget.</p> <p>Ongoing weed mapping verifies reducing weed burden over time.</p>					
				<p><b><u>Reporting</u></b></p> <p>A brief summary of weeds controlled and hours spent reported in the EPBC Annual report and the CVO AEMR.</p>					
Risk Assessment									
Unwanted Event	Inherent Risk			Mitigation and Corrective Actions	Responsibility	Timing	Final Risk		
	Consequence	Likelihood	Level				Consequence	Likelihood	Level
Uncontrolled weeds impact on biodiversity values of offset areas	Moderate	Likely	Med	Weed mapping and annual Inspections. Annual weed control contracts Checks to ensure contract compliance Long term encouragement / replacement with native species.	Environmental Scientist (L&B)	Annual	Minor	unlikely	Low



## Cadia Valley Operations

Management Issue (Continued) : 4. Weed Management					
<u>Contingency Effectiveness Assessment</u>					
Scenario : Uncontrolled weeds resulting in loss of biodiversity.					
<p><b>Contingency Assessment Matrix.</b> The following matrix is used to assess the likely success of the contingency measure. High Impact means that the contingency is likely to lead towards / deliver the desired outcome, while low impact is unlikely to meet the desired outcome.</p>	Contingency Considered	Advantages	Disadvantages	Matrix	Priority
	Do nothing	Low cost / effort	Possible loss of biodiversity	3	Low
	Weed mapping to verify long term weed reduction	Accurate assessment of performance.	Higher cost / effort	2	High
	Annual inspections and weed control contracts in place and enforced	Effective weed control	Higher cost / effort	2	High
	Rely solely on biological controls	Low cost / effort	Select weeds targeted only Possible loss of diversity	3	Low
	Weed control without replacing with native species	Low cost / effort (short term)	Higher cost / effort (long term)	4	Low
	Rely on native species to out-compete weed species	Low cost / effort	Likely unsuccessful. Possible loss of biodiversity	3	Low



## Cadia Valley Operations

Management Aspect : 5. Pest Management								
<b><u>Current Situation</u></b>  Pest management programs have been in place for many years for the three offset portions, as such the vertebrate pest burden is currently considered reasonably low.  All offset areas are considered equally vulnerable to pest species impact due to the transient nature of vertebrate pests.	<b><u>Desired Outcome</u></b>  The ultimate aim is that vertebrate pest species do not impact on biodiversity values and fauna populations of offset areas.  Priority pest species are controlled through the implementation of annual pest management programmes to progressively reduce pest populations and harbor.							
<b><u>Management Actions / Schedule</u></b>	<b>Applies to.....</b>			<b>Responsibility / Timing</b>				
	BRR	FC	SV	Responsibility	Annual	1 year	2-5 years	5-10 years
Conduct annual fox baiting program in coordination with neighbouring landholders.	X	X	X	Environmental Scientist (L&B)	X			
Conduct annual inspection (nominally in March) to plan Autumn and winter rabbit, eastern grey kangaroo, pig, wild dog, fallow Deer control programmes. (refer to section 9.12 for a list of vertebrate pest and control options).  Implement control programmes (as per section 9.12) as required.	X	X	X	Environmental Scientist (L&B)	X			
# signifies a recurring action as per the specified frequency in the action plan.								



## Cadia Valley Operations

Management Issue (Continued) : 5. Pest Management									
<p><b><u>Performance Measures</u></b></p> <p>Annual fox control program conducted</p> <p>Annual inspection conducted and control programmes implemented as required.</p>				<p><b><u>Monitoring</u></b></p> <p>Annual inspection conducted to assess pest incidence and impact.</p>					
				<p><b><u>Reporting</u></b></p> <p>A brief summary of pest management activities reported in the EPBC Annual report and the CVO AEMR.</p>					
Risk Assessment									
Unwanted Event	Inherent Risk			Mitigation and Corrective Actions	Responsibility	Timing	Final Risk		
	Consequence	Likelihood	Level				Consequence	Likelihood	Level
Uncontrolled pests impact on biodiversity values of offset areas	Moderate	Likely	Med	Annual fox control program  Annual inspections for vertebrate pests and implement control programmes as required.	Environmental Scientist (L&B)	Annual	Minor	unlikely	Low





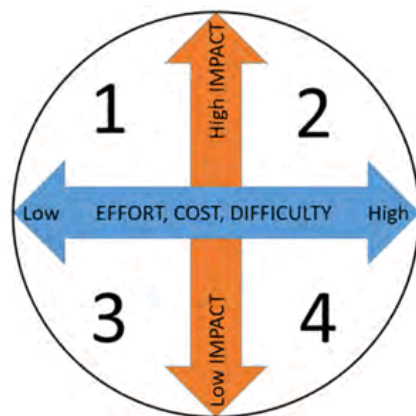
## Cadia Valley Operations

### Management Issue (Continued) : 5. Pest Management

#### Contingency Effectiveness Assessment

**Scenario : Uncontrolled Pests resulting in loss of biodiversity.**

**Contingency Assessment Matrix.** The following matrix is used to assess the likely success of the contingency measure. High Impact means that the contingency is likely to lead towards / deliver the desired outcome, while low impact is unlikely to meet the desired outcome.



Contingency Considered	Advantages	Disadvantages	Matrix	Priority
Do nothing	Low cost / effort	Possible loss of diversity	3	Low
Annual fox control programme (to be run in conjunction with neighbouring properties)	Effective local / temporary reduction in fox numbers.	Higher cost / effort. Result is likely to be localised and temporary. Ongoing annual control required.	2	High
Annual inspections (for other vertebrate pests) and control programmes implemented as required	Effective pest control	Higher cost / effort	2	High
Rely solely on natural agents (Myxomatosis, Rabbit Calicivirus) and predation (eg foxes / dogs / cats preying on rabbits)	Low cost / effort	In-effective on carnivorous pests. Likely loss of biodiversity.	3	Low



## Cadia Valley Operations

<b>Management Aspect : 6. Native Fauna Management</b>								
<b><u>Current Situation</u></b>  A range of native fauna species occur within the offset areas (refer to Section 9.4 and appendices D and E). Management to date has been 'passive' allowing for minimal disturbance. There have been no habitat enhancement works conducted within offset areas.  Refer to Pest Management and Bushfire Management sections for other Fauna management measures.			<b><u>Desired Outcome</u></b>  The ultimate aim is that native fauna species are protected from major impacts that may severely impact on their population and viability.  Native fauna habitat is considered and allowed for in all management works (with priority given to threatened species).  Native fauna habitat is enhanced in areas with a history of clearing and grazing (with priority given to threatened species).					
<b><u>Management Actions / Schedule</u></b>	<b><u>Applies to.....</u></b>			<b><u>Responsibility / Timing</u></b>				
	BRR	FC	SV	Responsibility	Annual	1 year	2-5 years	5-10 years
Conduct fauna surveys every 5 years to determine fauna species, distribution and effectiveness of management regimes (including future recommendations). Commencing FY2018	X	X	X	Environmental Scientist (L&B)				X#
Develop and implement a procedural checklist to ensure that fauna considerations are incorporated into all field based works (focussing on threatened species, recommendations from recovery plans and mitigation of key threatening processes (Refer to Section 9.13).	X	X	X	Environmental Scientist (L&B)		X		
No firewood collection or bush rock removal is permitted from within offset areas.  No tree felling (or removal of stags) is permitted (with the exception of high risk bushfire and safety considerations).	X	X	X	Environmental Scientist (L&B)	X			
Opportunistically retain / place additional habitat structures within previously cleared and grazed offset portions (sourced from nearby farming / offset areas).	X	X	X	Environmental Scientist (L&B)	X			
Undertake literature review on the success of man-made habitat boxes for arboreal species (in lieu of hollows). Implement in cleared areas to increase habitat availability.	X	X	X	Environmental Scientist (L&B)			X	
# signifies a recurring action as per the specified frequency in the action plan.								



## Cadia Valley Operations

Management Issue (Continued) : 6. Native Fauna Management									
<u><b>Performance Measures</b></u>  Fauna surveys conducted every 5 years.  Checklist developed and utilised to assess potential impact from field based works.  Habitat structures opportunistically placed within previously cleared and grazed offset portions.				<u><b>Monitoring</b></u>  Fauna surveys conducted every 5 years.					
				<u><b>Reporting</b></u>  A brief summary of fauna survey outcomes and recommendations reported in the EPBC Annual report and the CVO AEMR.					
Risk Assessment									
Unwanted Event	Inherent Risk			Mitigation and Corrective Actions	Responsibility	Timing	Final Risk		
	Consequence	Likelihood	Level				Consequence	Likelihood	Level
Field works impact on threatened fauna populations or habitat.	Moderate	Occasional	Med	Assessment of field works / risk prior to implementation.	Environmental Scientist (L&B)	Prior to field works being implemented.	Minor	Unlikely	Low
Unauthorised removal of firewood, bush rock, stags, habitat trees	Moderate	Occasional	Med	Removal of firewood, bush rock, stags, habitat trees not permitted.  Additional resources placed within previously cleared / grazed areas	Environmental Scientist (L&B)	Ongoing policy	Minor	Rare	Low
Uncontrolled high intensity bushfire destroying habitat resources. (Refer to management aspect 3)	Major	Occasional	High	Low intensity burns.  Fuel reduction activities  RFS / emergency response.  Post wildfire - monitoring / assessment / weed control	Environmental Scientist (L&BM)  RFS	Annual	Major	unlikely	Med



## Cadia Valley Operations

Management Issue (Continued) : 6. Native Fauna Management					
<u>Contingency Effectiveness Assessment</u>					
Scenario : Field works impact on threatened fauna populations or habitat. (for bushfires refer to Refer to management aspect 3)					
<p><b>Contingency Assessment Matrix.</b> The following matrix is used to assess the likely success of the contingency measure. High Impact means that the contingency is likely to lead towards / deliver the desired outcome, while low impact is unlikely to meet the desired outcome.</p>	Contingency Considered	Advantages	Disadvantages	Matrix	Priority
	Do nothing	Low cost / effort	Possible loss of diversity	3	Low
	Assess field works prior to implementation for the potential to impact upon threatened and native fauna species.	Effective in assessing risks to fauna impact.	Nil	1	High
	No firewood collection, bush rock collection or tree felling permitted within offset areas.	Effective in retaining habitat	Nil	1	High
	Key threatened species management actions incorporated into this management plan and implemented (Refer to section 9.13)	Effective in protecting / facilitating the recovery of threatened species.	Nil	2	High
	Detailed fauna surveys conducted every 5 years. Recommendations incorporated into management plan	Known performance of management actions. Corrective / improvement actions	Higher cost / difficulty	2	High



## Cadia Valley Operations

Management Aspect : 7. Unauthorised access (including livestock grazing)								
<u>Current Situation</u>  There is no open public access to any of the three conservation offset portions; access is via private property with standard agricultural gates.  The three portions of the offset areas are fenced to exclude livestock and are excised from any neighbouring grazing rights agreement areas.	<u>Desired Outcome</u>  The ultimate aim is that unauthorised access by people or livestock does not impact on biodiversity values and fauna populations of offset areas.  Gates to remain un-locked for RFS access and the retrieval of livestock.							
<u>Management Actions / Schedule</u>	<u>Applies to.....</u>			<u>Responsibility / Timing</u>				
	BRR	FC	SV	Responsibility	Annual	1 year	2-5 years	5-10 years
Contract fencer to conduct annual inspection of offset boundary fences and undertake repairs. Ad-hoc inspections and repairs following severe storms (trees over fences / repair of floodgates).	X	X	X	Environmental Scientist (L&B)	X			
Remove internal fences from offset areas	X			Environmental Scientist (L&B)			X	
Place signs at the entrances to each gate identifying the area as a conservation offset area and providing contact details.	X	X	X	Environmental Scientist (L&B)			X	
Undertake annual inspections for unauthorised access; devise actions and timeframes to increase security of offset areas as required.	X	X	X	Environmental Scientist (L&B)	X			
Replace boundary fences as required in consultation with neighbouring landholders. Fence design to consider fauna movements.	X	X		Environmental Scientist (L&B)	As required			
Use grazing as a strategic tool to improve biodiversity outcomes (remove litter, reduce seed set etc). Timing and intensity considered on an annual / ad-hoc basis (nominally high intensity / short duration). Applied in cleared areas (with dominant introduced pasture species) only.	X	X	X	Environmental Scientist (L&B)	X			
# signifies a recurring action as per the specified frequency in the action plan.								



## Cadia Valley Operations

Management Issue (Continued) : 7. Unauthorised access (including livestock grazing)									
<b><u>Performance Measures</u></b>  Annual boundary fence inspection and repair regime.  Placement of signs at access points.  No observed impact on biodiversity aspects due to unauthorised access.				<b><u>Monitoring</u></b>  Annual inspection on unauthorised access and livestock impact.					
				<b><u>Reporting</u></b>  A brief summary of any observed unauthorised access / livestock damage reported in the EPBC Annual report and the CVO AEMR.					
Risk Assessment									
Unwanted Event	Inherent Risk			Mitigation and Corrective Actions	Responsibility	Timing	Final Risk		
	Consequence	Likelihood	Level				Consequence	Likelihood	Level
Unauthorised people, vehicle / livestock access. Impacts upon flora, fauna or EEC's.	Moderate	Unlikely	Med	Offsets located on private land with no nearby public access.  Annual inspections to identify unauthorised access / correction as required.  Annual fence inspection and maintenance regime.	Environmental Scientist (L&B)	Annual	Minor	Rare	Low
Use of strategic grazing impacts upon biodiversity values.	Moderate	Unlikely	Med	Inspection and assessment of grazing as a strategic tool – undertaken on a conservative basis.  Applied in cleared areas (with dominant introduced pasture species) only	Environmental Scientist (L&B)	Annual	Minor	Rare	Low



## Cadia Valley Operations

Management Issue (Continued) : 7. Unauthorised access (including livestock grazing)					
Contingency Effectiveness Assessment					
Scenario : Unauthorised people / vehicle / livestock access impacting upon flora, fauna or EEC's.					
<p><b>Contingency Assessment Matrix.</b> The following matrix is used to assess the likely success of the contingency measure. High Impact means that the contingency is likely to lead towards / deliver the desired outcome, while low impact is unlikely to meet the desired outcome.</p>	Contingency Considered	Advantages	Disadvantages	Matrix	Priority
	Do nothing	Low cost / effort	Likely livestock access and impact upon biodiversity	3	Low
	Annual boundary fence inspection and repair regime	Effective in maintaining boundary fence condition.	Cost / access difficulties	2	High
	Annual inspections for unauthorised people / vehicle / livestock access and correction as required.	Effective in identifying / correcting any issues	Nil	1	High
	Signs installed at boundary gates	Effective in identifying a change in land-use / ownership.	Not effective in restricting access.	3	Low
	Removal of internal fences to facilitate fauna movement	Facilitates fauna movement	Cost / access difficulties	2	High
	Access gates to remain unlocked	Allows RFS and neighbour access for management purposes. Reduced risk of damage for forced access.	Not effective in restricting access.	3	Low
	Undertake strategic grazing to improve biodiversity outcomes (nominally high intensity / short duration).	Low cost / effort. Effective in removal of litter, reducing seed set of introduced palatable species.	Detailed inspections and assessments to avoid damage	2	High
	Restrict all grazing	Low cost / effort.	Litter and seed from introduced (palatable) species continues to dominate.	3	Low





## Cadia Valley Operations

Management Aspect : 8. Erosion								
<b><u>Current Situation</u></b>  The Flyers Creek and Stratton Vale offset portion have no significant erosion and are deemed quite stable due to persistent vegetation cover.  The eastern portions of Black Rock Range have the highest potential for erosion due to 'light' soil type, steep slope, existing eroded gullies and annual vegetation cover due to prolonged grazing pressure.	<b><u>Desired Outcome</u></b>  Eastern gullies on Black Rock Range are slowly and progressively stabilised through erosion control measures.							
<b><u>Management Actions / Schedule</u></b>	<b>Applies to.....</b>			<b>Responsibility / Timing</b>				
	BRR	FC	SV	Responsibility	Annual	1 year	2-5 years	5-10 years
Inspect and assess active eroding gullies for the purpose of identifying priority locations for remedial works	X			Environmental Scientist (L&B)			X	
Design and implement remediation works (will be specific to each individual gully) to reduce soil erosion.  Steep slopes: nominally, minimise mechanical engineering solutions due to steepness of the terrain and focus on establishing perennial, deep rooted vegetation, slowing and retaining water / nutrient within the landscape (leaky weir / natural sequence/ LFA concepts)  Flat areas: Mechanical engineering solutions plus establishing perennial, deep rooted vegetation, slowing and retaining water / nutrient within the landscape (leaky weir / natural sequence/ LFA concepts)  1 campaign undertaken every 2-5 years	X			Environmental Scientist (L&B)			X <sup>#</sup>	
Exclude strategic grazing from steep areas with a high risk of erosion.	X			Environmental Scientist (L&B)	X			
# signifies a recurring action as per the specified frequency in the action plan.								



## Cadia Valley Operations

Management Issue (Continued) : 8. Erosion									
<b><u>Performance Measures</u></b>  Inspections undertake and priority gully's identified  Works programme implemented every 2-5 years.				<b><u>Monitoring</u></b>  Inspection / photography (before and after) of erosion control works / progress.					
				<b><u>Reporting</u></b>  A brief summary of any erosion control works reported in the EPBC Annual report and the CVO AEMR.					
Risk Assessment									
Unwanted Event	Inherent Risk			Mitigation and Corrective Actions	Responsibility	Timing	Final Risk		
	Consequence	Likelihood	Level				Consequence	Likelihood	Level
Uncontrolled erosion impacts upon biodiversity values of offset areas.	Major	Occasional	High	Design and implement erosion mitigation works	Environmental Scientist (L&B)	Every 2 years	Moderate	Occasional	Med



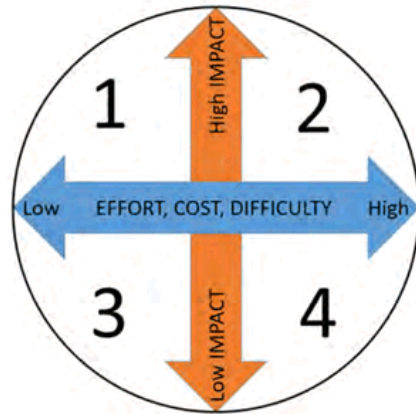
## Cadia Valley Operations

### Management Issue (Continued) : 8. Erosion

#### Contingency Effectiveness Assessment

**Scenario : Uncontrolled erosion impacts upon biodiversity values of offset areas.**

**Contingency Assessment Matrix.** The following matrix is used to assess the likely success of the contingency measure. High Impact means that the contingency is likely to lead towards / deliver the desired outcome, while low impact is unlikely to meet the desired outcome.



Contingency Considered	Advantages	Disadvantages	Matrix	Priority
Do nothing	Low cost / effort	Continued erosion / degradation of eastern gully's	3	Low
Design and implement mechanical / highly engineered erosion control works on steep slopes		High Cost. High risk of failure due to extreme slope of eastern portions.	4	Low
Design and implement mechanical / engineered erosion control works on flat areas	Effective in managing erosion on flatter, lower slope areas.	High Cost.	2	High
Design and implement – low impact mitigation works such as leaky weir / natural sequence/ LFA concepts / perennial deep rooted vegetation	Potentially effective in managing erosion.	Slow / gradual progress, open to setbacks following storms.	2	High



## Cadia Valley Operations

Management Aspect : 9. European / Aboriginal Heritage											
<u>Current Situation</u>  European and Aboriginal heritage aspects of the conservation offset portion has not been assessed and remains unknown.				<u>Desired Outcome</u>  Develop an understanding of European and Aboriginal heritage aspects of the offset areas and implement management actions for assessment / conservation.							
<u>Management Actions / Schedule</u>				Applies to.....			Responsibility / Timing				
				BRR	FC	SV	Responsibility	Annual	1 year	2-5 years	5-10 years
Undertake European and Aboriginal heritage surveys of offset areas.				X	X	X	Environmental Scientist (L&B)				X
Incorporate heritage survey findings into future revisions of this management plan											
# signifies a recurring action as per the specified frequency in the action plan.											



## Cadia Valley Operations

Management Issue (Continued) : 9. European / Aboriginal Heritage										
<b><u>Performance Measures</u></b>  European and Aboriginal heritage surveys undertaken  Management Plan updated.				<b><u>Monitoring</u></b>  Nil – pending completion of heritage surveys.						
				<b><u>Reporting</u></b>  Any ad-hoc heritage findings will be reported in the EPBC Annual report and the CVO AEMR.  A summary will also be included following the completion of the heritage surveys.						
Risk Assessment										
Unwanted Event	Inherent Risk			Mitigation and Corrective Actions	Responsibility	Timing	Final Risk			
	Consequence	Likelihood	Level				Consequence	Likelihood	Level	
Damage / loss of heritage items due to lack of information / assessment.	Minor	Unlikely	Low	Undertake survey to assess heritage items / significance  Report / assess any ad-hoc heritage findings	Environmental Scientist (L&B)	Annual	Minor	Unlikely	Low	



## Cadia Valley Operations

Management Issue (Continued) : 9. European / Aboriginal Heritage					
Contingency Effectiveness Assessment					
Scenario : Damage / loss of heritage items due to lack of information / assessment.					
<p><b>Contingency Assessment Matrix.</b> The following matrix is used to assess the likely success of the contingency measure. High Impact means that the contingency is likely to lead towards / deliver the desired outcome, while low impact is unlikely to meet the desired outcome.</p>	Contingency Considered	Advantages	Disadvantages	Matrix	Priority
	Do nothing	Low cost / effort	Potential loss of heritage items	3	Low
	Undertake heritage survey of European and Aboriginal heritage	Known location and significance of heritage items.	Cost. Potential land management conflicts.	2	High
	Following survey, update management plan	Management measures in place for the conservation of heritage items	Cost. Potential land management conflicts.	2	High



## Cadia Valley Operations

Management Aspect : 10. Resource Salvage								
<b>Current Situation</b>  Currently, no habitat salvage is undertaken to relocate items from the Cadia East Subsidence zone to offset areas. Offset areas currently have significant remnant trees, trees with hollows, fallen timber and intact soil resources due to the previous management of these areas.				<b>Desired Outcome</b>  Schedule 3, Condition 38b of the Cadia East Project Approval requires that investigation be undertaken into the beneficial use of resources (timber, fauna habitat, seed and soil) from the Cadia East Subsidence Zone (as far as is reasonable and feasible).  Offset areas currently have significant remnant trees, trees with hollows, fallen timber and intact soil resources due to the previous management of these areas. As such it is considered that the best use of these resources from the Cadia East Subsidence Zone is to place these resources onto mine site rehabilitation areas where these assets are scarce. The site based rehabilitation areas are also much closer to facilitate ease and efficiency of placement.  Resources salvageable from the Cadia East Subsidence Zone that are suitable for offset areas is restricted to seed for revegetation purposes.				
Management Actions / Schedule				Applies to.....			Responsibility / Timing	
				BRR	FC	SV	Responsibility	Annual
Annual seed collection contracts to include potential collection from the Cadia East Subsidence Zone				X	X	X	Environmental Scientist (L&B)	X
Habitat resources (with the exception of seed) from the Cadia East Subsidence zone will be used exclusively in the rehabilitation of mine disturbed areas. Considered annually based on availability.							Environmental Scientist (L&B)	X
Relocate / redistribute habitat from within offset areas / adjacent farming areas to offset areas that have been previously cleared and grazed. Nominal program every 2-5 years pending availability of resources.				X	X	X	Environmental Scientist (L&B)	X <sup>#</sup>
# signifies a recurring action as per the specified frequency in the action plan.								





## Cadia Valley Operations

Management Issue (Continued) : 10. Resource Salvage									
<b><u>Performance Measures</u></b>  Annual seed collection contracts to include potential collection from Cadia East Subsidence Zone  Habitat resources from the Cadia East Subsidence zone used in the rehabilitation of mine disturbed areas.  Habitat from within offset areas / adjacent farming areas are placed within previously cleared and grazed offset areas.				<b><u>Monitoring</u></b>  Internal monitoring of habitat resource relocation, seed stocks and provenance.					
				<b><u>Reporting</u></b>  Any habitat relocation and placement undertaken within the mine disturbed landscape will be reported in the CVO AEMR.  Any habitat relocation and placement undertaken within the conservation offset landscape will be reported in the EPBC Annual report and the CVO AEMR.					
Risk Assessment									
Unwanted Event	Inherent Risk			Mitigation and Corrective Actions	Responsibility	Timing	Final Risk		
	Consequence	Likelihood	Level				Consequence	Likelihood	Level
Loss of potential resources from the Cadia East Subsidence Zone.	Minor	Likely	Med	Habitat resources utilised in the rehabilitation of mine disturbed areas  Seed collection undertaken from the Cadia East Subsidence Zone used in site based rehabilitation and also offset revegetation works.	Environmental Scientist (L&B)	Annual	Minor	Occasional	Med
Lack of habitat resources located within previously cleared / grazed offset areas.	Minor	Unlikely	Med	Habitat from within offset areas / adjacent farming areas to are placed within previously cleared and grazed offset areas	Environmental Scientist (L&B)	Program every 2-5 years	Minor	Rare	Low



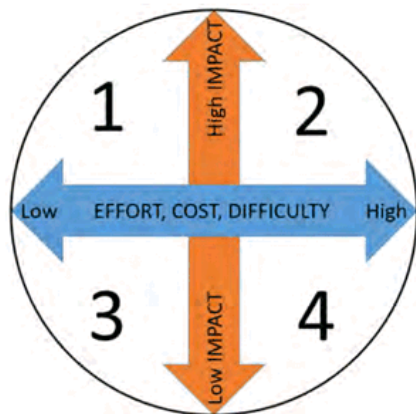
## Cadia Valley Operations

### Management Issue (Continued) : 10. Resource Salvage

#### Contingency Effectiveness Assessment

#### Scenario : Loss of potential resources from the Cadia East Subsidence Zone.

**Contingency Assessment Matrix.** The following matrix is used to assess the likely success of the contingency measure. High Impact means that the contingency is likely to lead towards / deliver the desired outcome, while low impact is unlikely to meet the desired outcome.



Contingency Considered	Advantages	Disadvantages	Matrix	Priority
Do nothing	Low cost / effort	Loss of habitat resources	3	Low
Utilise habitat resources from Cadia East Subsidence Zone in offset areas	Meet compliance condition. Add some limited value to offset areas	Significant cost and difficulty in relocating large and bulky items. Limited value to offset areas due to existing trees, fallen timber, habitat items etc	4	Low
Utilise habitat resources from Cadia East Subsidence Zone in site rehabilitation areas	Relative to above – significantly reduced cost and difficulty. Adds significant habitat value to site based rehabilitation areas.	Nil	2	High
Utilise seed from Cadia East Subsidence Zone in offset areas.	Provides local seed for revegetation programmes. Considered local provenance for offset areas	Nil	1	High
Relocate / redistribute habitat from within offset areas to areas previously cleared and grazed	Relative to above – significantly reduced cost and difficulty. Adds habitat value to previously cleared and grazed areas.	Nil	1	High

### 9.10 PERFORMANCE MONITORING AGAINST REFERENCE SITES

As described in section 8.1, CVO has been monitoring selected local reference sites since 2008 to define 'success criteria' for mine site rehabilitation. Monitoring of rehabilitation sites is undertaken in an identical manner to the reference sites (at the same time of the year, having experienced similar climatic conditions) with the results compared against those of the reference site. If measured parameters of the rehabilitated site are progressing (or showing trajectory) towards those of the reference site, the rehabilitation is showing signs of success. If rehabilitation sites are not steadily progressing towards those of the reference site, there may be a fundamental issue with the rehabilitation process. The large range of detailed parameters measured and assessed can be used to highlight areas that require further consideration and correction.

CVO propose to use a similar methodology to assess the success of revegetation works on areas that were previously cleared and grazed (refer to Action Plan 1).

The methodology adopted by CVO involves the selection and monitoring of a series of reference sites that are representative of the target vegetation community (such as a woodland community) (refer to section 9.14). A large number of parameters are measures as indicated in the following table:

Hierarchy of ecosystem succession	Aspect or ecosystem component	Completion criteria	Performance Indicators	Completion Performance Indicators
Landform establishment and stability	Ecosystem function	Landform is functional and performing as it was designed to do	LFA Stability	Based on key physical, biological and chemical characteristics the LFA stability index provides an indication of the sites stability and that it is comparable to or trending towards that of the local remnant vegetation
			LFA Infiltration	Based on key physical, biological and chemical characteristics the LFA infiltration index provides an indication of the sites infiltration capacity and that it is comparable to or trending towards that of the local remnant vegetation
			LFA Nutrient recycling	Based on key physical, biological and chemical characteristics the LFA nutrient recycling index provides an indication of the sites ability to recycle nutrient and that it is comparable to or trending towards that of the local remnant vegetation
			LFA Landscape organisation	The Landscape Organisation Index provides a measure of the ability of the site to retain resources and that it is comparable to that of the local remnant vegetation
Growth medium development	Soil chemical, physical properties and amelioration	Soil properties are suitable for the establishment and maintenance of selected vegetation species	pH	pH is typical of that of the surrounding landscape or falls within desirable ranges provided by the agricultural industry
			Organic Matter	Organic Carbon levels are typical of that of the surrounding landscape, increasing or fall within desirable ranges provided by the agricultural industry
			Phosphorous	Available Phosphorus is typical of that of the surrounding landscape or fall within desirable ranges provided by the agricultural industry
Ecosystem establishment, development and habitat	Vegetation diversity	Vegetation contains a diversity of species comparable to that of the local remnant	Total species richness	The total number of live plant species provides an indication of the floristic diversity of the site and is comparable to the local remnant vegetation

Hierarchy of ecosystem succession	Aspect or ecosystem component	Completion criteria	Performance Indicators	Completion Performance Indicators
complexity		vegetation	Native understorey abundance	The abundance of native species per square metre averaged across the site provides an indication of the heterogeneity of the site and that it has more than or an equal number of native species as the local remnant vegetation
	Protective ground cover	Ground layer contains protective ground cover and habitat structure comparable with the local remnant vegetation	Perennial plant cover (< 0.5m)	Percent ground cover provided by live perennial vegetation (less than 50cm in height) is comparable to that of the local remnant vegetation
Ecosystem establishment, development and habitat complexity	Protective ground cover		Total Ground Cover	Total groundcover is the sum of protective ground cover components (as described above) and that it is comparable to that of the local remnant vegetation
	Vegetation density		Density of shrubs and juvenile trees	The density of shrubs or juvenile trees with a stem diameter < 5cm is comparable to that of the local remnant vegetation
			Tree density	The density of shrubs or trees with a stem diameter > 5cm is comparable to that of the local remnant vegetation
	Ecosystem growth and natural recruitment	The vegetation is maturing and/or natural recruitment is occurring at rates similar to those of the local remnant vegetation	shrubs and juvenile trees 0 - 0.5m in height	The number of shrubs or juvenile trees less than 0.5m in height provides an indication of establishment success and/or natural ecosystem recruitment and that it is comparable to that of the local remnant vegetation
			shrubs and juvenile trees 1.5 - 2m in height	The number of shrubs or juvenile trees less than 1.5-2m in height provides an indication of establishment success, growth and/or natural ecosystem recruitment and that it is comparable to that of the local remnant vegetation
Ecological stability	Ecosystem health	The vegetation is in a condition comparable to that of the local remnant vegetation.	Healthy trees	The percentage of the tree population which are in healthy condition and that the percentage is comparable to the local remnant vegetation
			Flowers/fruit: Trees	The presence of reproductive structures such as buds, flowers or fruit provides evidence that the ecosystem is maturing, capable of recruitment and can provide habitat resources comparable to that of the local remnant vegetation
	Ecosystem structure	The vegetation is developing in structure and complexity comparable to that of the local remnant vegetation	Foliage cover 0.5 - 2 m	Projected foliage cover provided by perennial plants in the 0.5 - 2m vertical height stratum indicates the community structure is comparable to that of the local remnant vegetation
			Foliage cover 2 - 4m	Projected foliage cover provided by perennial plants in the 2 - 4m vertical height stratum indicates the community structure is comparable to that of the local remnant vegetation
	Ecosystem composition	The vegetation is comprised by a range of growth forms comparable to that of the local remnant	Trees	The number of tree species regardless of age comprising the vegetation community is comparable to that of the local remnant vegetation

Hierarchy of ecosystem succession	Aspect or ecosystem component	Completion criteria	Performance Indicators	Completion Performance Indicators
		vegetation	Shrubs	The number of shrub species regardless of age comprising the vegetation community is comparable to that of the local remnant vegetation
			Grasses	The number of grass species comprising the vegetation community is comparable to that of the local remnant vegetation

#### Selection of reference sites

Selecting suitable reference sites is essential to this model as they ultimately set the benchmark for revegetation targets and indications of success. Reference sites chosen for CVO were sites that were typical of the local environment, including those considered to be in the best condition within the local context, and as such are a true representation of the 'current condition' of remnant woodland and riparian communities. The reference sites were spread out where possible to maximise the spatial distribution and subsequent variations in community composition. It is acknowledged that reference sites chosen, while they are the best that could be found in a local context are still subject to impact and change due to (for example) occasional grazing, fire, drought, physical disturbance etc.

Reference sites have been selected based on the following target vegetation communities (for revegetation):

#### **Woodland Reference Sites**





- Woodland (refer to section 9.14 – predominantly areas on better soil types on the lower eastern and western slopes of Black Rock Range, non-riparian areas of the Flyers Creek and Stratton Vale offset portions.)
  - RfWood01
  - RfWood02
  - RfWood04
  - RfWood05

#### General description

The grassy woodland reference sites are comprised of low various densities of *E. albens* (White Box) or *E. melliodora* trees but *E. blakelyi* (Blakely's Red Gum), *E. macrorhyncha* (Red Stringybark), *E. bridgesiana* (Apple Box) or *E. goniocalyx* (Bundy Box) may also have been present. Scattered old growth trees are present as well as younger regrowth and some relatively recent natural eucalypt recruitment was present in all sites. There was an absence of a shrub layer in two sites however in the other two woodland sites, shrubs including *Cassinia arcuata* and *Acacia dealbata* and *A. implexa* were more common and eucalypt regeneration was present. There may also have been the occasional *Rubus fruticosus* (Blackberry) or *Rosa rubiginosa* (Sweet Briar), exotic shrubs and declared noxious weeds in some woodland areas. The understoreys were usually dominated by native perennial grasses and common native forbs and all sites contained a high cover of leaf litter. There were also scattered exotic annuals and pockets of exotic grasses or weeds in previously disturbed areas.



Specific descriptions

Site	Reference	Description	Plate
Woodland Ashleigh Park	RfWood01	E. melliodora woodland with mixed native grasses, introduced annuals and forbs.	
Woodland Bundarra	RfWood02	E. albens remnant on the side of a rocky hill behind cattle yards. Improved pastures (Phalaris) dominate the paddock clearings but Bothriochloa and Microlaena persist within the rocky areas. Mixture of large old growth trees and regrowth trees. There was no regeneration or shrub understorey however large rocks and fallen branches were common. There were large patches of native grasses and scattered forbs but exotic species were more abundant.	
Woodland CVO Access	RWood04	Young regrowth woodland containing several mature eucalypts including E. melliodora, E. bridgesiana and E. macrorhyncha on a slope. Nice scattering of eucalypt, Cassinia and Acacia dealbata regeneration. The grassy understorey was grazed very low by wildlife and dominated by Austrodanthonia, Microlaena and Bothriochloa	
Woodland Cadiangullong Dam	RWood05	Remnant woodland dominated by E. melliodora and E. goniocalyx with an understorey of Acacia dealbata (A. implexa, Cassinia sp.). Predominantly regrowth but few old growth trees and some shrub regeneration occurring. Understorey contained scattered grasses and herbs. Many scattered logs and branches. In 2011 and 2012 there was improved growth of native grasses and shrubs	



Riparian Reference Sites

- Riparian (Refer to Section 9.14 riparian areas located along Panuara Rivulet (Black Rock Range), Flyers Creek / Belubula River (Flyers Creek portion) and Swallow Creek (Stratton Vale portion)
  - RrRip02
  - RrRip03

General description

The two riparian woodland sites were quite different to each other but both were characteristically open grassy woodland. One site was comprised of scattered old growth trees of *E. camaldulensis* (River Red Gum), *E. melliodora* and *E. bridgesiana* (Apple Box) and had an understorey dominated by *Phalaris aquatica* and *Dactylis glomerata* with patches of introduced annual grasses and native grass and herbs. The second was also comprised of scattered old growth trees dominated by *E. viminalis*, *E. melliodora* and *E. bridgesiana* and a relatively intact native and diverse understorey and contained some patches of shrubs including *Acacia melanoxylon* and *A. dealbata*. Both sites however contained various noxious weeds and floods waters continue to alter the stream morphology.

Specific descriptions

Site	Reference	Description	Plate
Riparian Bakers Shaft Reserve	RrRip02	Open woodland dominated by <i>E. camaldulensis</i> , <i>E. melliodora</i> and <i>E. bridgesiana</i> . Understorey dominated by <i>Phalaris aquatica</i> and <i>Dactylis glomerata</i> with patches of introduced annual grasses and native grass and herbs. Some <i>E. camaldulensis</i> regeneration occurring along the rocky banks	
Riparian Cadiangullong Creek	RrRip03	Cadiangullong Creek CVO. Open woodland dominated by <i>E. viminalis</i> , <i>E. melliodora</i> and <i>E. bridgesiana</i> and a relatively intact native understorey. Large old growth trees and midstorey shrubs including <i>Acacia melanoxylon</i> and <i>A. dealbata</i> .	





**Determining success**

Revegetation success criteria (as at 2016) are presented in the following table (DNA Environmental 2016). Each parameter measured (on an annual basis) has a desirable range (based on the minimum and maximum values determined from reference sites). Revegetation sites have met the closure criteria parameter if the measurement falls within or exceeds this range.

A range of representative revegetation sites (nominally a total of 6-10 covering woodland and riparian revegetation within the three offset portions) will be chosen for ongoing monitoring. Revegetation monitoring and assessment against closure criteria will be undertaken on an annual basis (nominally April / May each year) by an external independent consultant. A detailed report is produced following annual monitoring which assesses the revegetation performance against reference site condition. A summary will be placed in the EPBC Annual Report

Reference site condition and therefore success criteria are dynamic and will change from year to year based on annual monitoring, therefore the relevant success criteria at any time will be contained in the most recent AEMR (and will be used / repeated in the corresponding EPBC Annual Report)





## Cadia Valley Operations

Rehabilitation Phase	Aspect or ecosystem component	Completion criteria	Performance Indicators	Description of performance indicators	Primary Performance Indicators	Secondary Performance Indicators	Unit of measurement	2016 Woodland ecosystem range		2016 Riparian ecosystem range	
Performance indicators are quantified by the range of values obtained from replicated reference sites assessed in 2016								Lower KPI	Upper KPI	Lower KPI	Upper KPI
Phase 2: Landform establishment and stability	Landform slope, gradient	Landform suitable for final land use and generally compatible with surrounding topography	Slope	Landform is generally compatible within the context of the local topography and final landform design.	✓		< Degrees (18°)	10	14	10	14
	Active erosion	Areas of active erosion are limited	No. Rills/Gullies	Number of gullies or rills >0.3m in width or depth in a 50m transect are limited and stabilising	✓		No.	0	0	0	0
			Cross-sectional area of rills	Provides an assessment of the extent of soil loss due to gully and rill erosion and that it is limited and/or is stabilising		✓	m <sup>2</sup>	0	0	0	0
Phase 3: Growth medium development	Soil chemical, physical properties and amelioration	Soil properties are suitable for the establishment and maintenance of selected vegetation species	pH	pH is typical of that of the surrounding landscape or falls within desirable ranges provided by the agricultural industry	✓		pH (5.6-7.3)	5.9	7.3	6.5	6.5
			EC	Electrical Conductivity is typical of that of the surrounding landscape or falls within desirable ranges provided by the agricultural industry		✓	< dS/m (<0.150)	0.068	0.289	0.074	0.086
			Organic Matter	Organic Carbon levels are typical of that of the surrounding landscape, increasing or fall within desirable ranges provided by the agricultural industry	✓		% (>4.5)	7.8	14.3	6.3	8.6
			Phosphorous	Available Phosphorus is typical of that of the surrounding landscape or fall within desirable ranges provided by the agricultural industry	✓		mg/kg (50)	12.0	48.5	17.8	20.6
			Nitrate	Nitrate levels are typical of that of the surrounding landscape or fall within desirable ranges provided by the agricultural industry		✓	mg/kg (>12.5)	0.4	26.2	1.5	9.0
			CEC	Cation Exchange Capacity is typical of that of the surrounding landscape or fall within desirable ranges provided by the agricultural industry		✓	Cmol+/kg (>14)	12.7	39.8	16.6	22.8
			ESP	Exchangeable Sodium Percentage (a measure of sodicity) is typical of that of the surrounding landscape or fall within desirable ranges provided by the agricultural industry		✓	% (<5)	0.1	7.5	0.1	0.4



## Cadia Valley Operations

Rehabilitation Phase	Aspect or ecosystem component	Completion criteria	Performance Indicators	Description of performance indicators	Primary Performance Indicators	Secondary Performance Indicators	Unit of measurement	2016 Woodland ecosystem range		2016 Riparian ecosystem range	
Performance indicators are quantified by the range of values obtained from replicated reference sites assessed in 2016								Lower KPI	Upper KPI	Lower KPI	Upper KPI
Phase 4: Ecosystem & Landuse Establishment	Landscape Function Analysis (LFA): Landform stability and organisation	Landform is stable and performing as it was designed to do	LFA Stability	The LFA stability index provides an indication of the sites stability and is comparable to or trending towards that of the local remnant vegetation	✓		%	66.1	77.5	67.9	71.2
			LFA Landscape organisation	The Landscape Organisation Index provides a measure of the ability of the site to retain resources and that it is comparable to that of the local remnant vegetation	✓		%	87	100	91	100
	Vegetation diversity	Vegetation contains a diversity of species comparable to that of the local remnant vegetation	Diversity of shrubs and juvenile trees	The diversity of shrubs and juvenile trees with a stem diameter less than 5cm is comparable to that of the local remnant vegetation.		✓	species/area	0	8	5	7
				The percentage of shrubs and juvenile trees with a stem diameter less than 5cm dbh which are local endemic species and these percentages are comparable to the local remnant vegetation	✓		% population	87	100	17	43
			Total species richness	The total number of live plant species provides an indication of the floristic diversity of the site and is comparable to the local remnant vegetation	✓		No./area	7	37	35	44
			Native species richness	The total number of live native plant species provides an indication of the native plant diversity of the site and that it is greater than or comparable to the local remnant vegetation		✓	>No./area	4	22	17	27
			Exotic species richness	The total number of live exotic plant species provides an indication of the exotic plant diversity of the site and that it is less than or comparable to the local remnant vegetation		✓	<No./area	3	16	17	18
			Ratio of native to exotic species	The ratio of live native species compared to live exotic plant species provides an indication of the relative native species richness of the site and that it is more than or comparable to the local remnant vegetation		✓	>	1.0	2.8	0.9	1.6



## Cadia Valley Operations

Rehabilitation Phase	Aspect or ecosystem component	Completion criteria	Performance Indicators	Description of performance indicators	Primary Performance Indicators	Secondary Performance Indicators	Unit of measurement	2016 Woodland ecosystem range		2016 Riparian ecosystem range	
Performance indicators are quantified by the range of values obtained from replicated reference sites assessed in 2016								Lower KPI	Upper KPI	Lower KPI	Upper KPI
Phase 4: Ecosystem & Landuse Establishment	Vegetation density	Vegetation contains a density of species comparable to that of the local remnant vegetation	Density of shrubs and juvenile trees	The total density of shrubs or juvenile trees with a stem diameter < 5cm is comparable to that of the local remnant vegetation		✓	No./area	0	212	14	59
				The density of endemic shrubs or juvenile trees with a stem diameter < 5cm is comparable to that of the local remnant vegetation	✓		No./area	0	204	6	10
	Ecosystem composition	The vegetation is comprised by a range of growth forms comparable to that of the local remnant vegetation	Trees	The number of tree species regardless of age comprising the vegetation community is comparable to that of the local remnant vegetation	✓		No./area	1	4	3	4
			Shrubs	The number of shrub species regardless of age comprising the vegetation community is comparable to that of the local remnant vegetation	✓		No./area	0	6	3	8
			Sub-shrubs	The number of sub-shrub species comprising the vegetation community is comparable to that of the local remnant vegetation		✓	No./area	0	0	0	0
			Herbs	The number of herbs or forb species comprising the vegetation community is comparable to that of the local remnant vegetation		✓	No./area	2	16	8	21
		The vegetation is comprised by a range of growth forms comparable to that of the local remnant vegetation	Grasses	The number of grass species comprising the vegetation community is comparable to that of the local remnant vegetation	✓		No./area	3	10	7	17
			Reeds	The number of reed, sedge or rush species comprising the vegetation community is comparable to that of the local remnant vegetation		✓	No./area	1	3	3	3
			Vines	The number of vines or climbing species comprising the vegetation community is comparable to that of the local remnant vegetation		✓	No./area	0	0	0	1
			Ferns	The number of ferns comprising the vegetation community is comparable to that of the local remnant vegetation		✓	No./area	0	0	0	1
			Aquatic	The number of aquatic plants comprising the vegetation community is comparable to that of the local remnant vegetation		✓	No./area	0	0	0	0



## Cadia Valley Operations

Rehabilitation Phase	Aspect or ecosystem component	Completion criteria	Performance Indicators	Description of performance indicators	Primary Performance Indicators	Secondary Performance Indicators	Unit of measurement	2016 Woodland ecosystem range		2016 Riparian ecosystem range	
Performance indicators are quantified by the range of values obtained from replicated reference sites assessed in 2016								Lower KPI	Upper KPI	Lower KPI	Upper KPI
Phase 5: Ecosystem & Landuse Development	Landscape Function Analysis (LFA): Landform function and ecological performance	Landform is ecologically functional and performing as it was designed to do	LFA Infiltration	LFA infiltration index provides an indication of the sites infiltration capacity and is comparable to or trending towards that of the local remnant vegetation	✓		%	50.7	61.9	42.8	58.2
			LFA Nutrient recycling	LFA nutrient recycling index provides an indication of the sites ability to recycle nutrient and is comparable to or trending towards that of the local remnant vegetation	✓		%	47.6	58.1	37.7	55.9
	Protective ground cover	Ground layer contains protective ground cover and habitat structure comparable with the local remnant vegetation	Litter cover	Percent ground cover provided by dead plant material is comparable to that of the local remnant vegetation		✓	%	76.0	90.8	70.5	75.5
			Annual plants	Percent ground cover provided by live annual plants is comparable to that of the local remnant vegetation		✓	<%	0	0	0	0.5
			Cryptogam cover	Percent ground cover provided by cryptogams (eg mosses, lichens) is comparable to that of the local remnant vegetation		✓	%	0	10.5	0	0
			Rock	Percent ground cover provided by stones or rocks (> 5cm diameter) is comparable to that of the local remnant vegetation		✓	%	0	1	0	1.5
			Log	Percent ground cover provided by fallen branches and logs (>5cm) is comparable to that of the local remnant vegetation		✓	%	0	6	0	4
			Bare ground	Percentage of bare ground is less than or comparable to that of the local remnant vegetation		✓	< %	0	15.5	1.5	3
			Perennial plant cover (< 0.5m)	Percent ground cover provided by live perennial vegetation (<0.5m in height) is comparable to that of the local remnant vegetation	✓		%	0	9	21	22.5
			Total Ground Cover	Total groundcover is the sum of protective ground cover components (as described above) and that it is comparable to that of the local remnant vegetation	✓		%	84.5	100	97	98.5
	Ground cover diversity	Vegetation contains a diversity of species per square meter comparable to that of the local remnant vegetation	Native understorey abundance	The abundance of native species per square metre averaged across the site provides an indication of the heterogeneity of the site and that it has more than or an equal number of native species as the local remnant vegetation	✓		> species/m <sup>2</sup>	0	3.2	1.2	4.8
			Exotic understorey abundance	The abundance of exotic species per square metre averaged across the site provides an indication of the heterogeneity of the site and that it has less than or an equal number of native species as the local remnant vegetation		✓	< species/m <sup>2</sup>	0	1	1.2	1.6



## Cadia Valley Operations

Rehabilitation Phase	Aspect or ecosystem component	Completion criteria	Performance Indicators	Description of performance indicators	Primary Performance Indicators	Secondary Performance Indicators	Unit of measurement	2016 Woodland ecosystem range		2016 Riparian ecosystem range	
Performance indicators are quantified by the range of values obtained from replicated reference sites assessed in 2016								Lower KPI	Upper KPI	Lower KPI	Upper KPI
Phase 5: Ecosystem & Landuse Development	Native ground cover abundance	Native ground cover abundance is comparable to that of the local remnant vegetation	Percent ground cover provided by native vegetation <0.5m tall	The percent ground cover abundance of native species (<0.5m) compared to exotic species is comparable to that of the local remnant vegetation	✓		%	0	100	42.4	86.8
	Ecosystem growth and natural recruitment	The vegetation is maturing and/or natural recruitment is occurring at rates similar to those of the local remnant vegetation	shrubs and juvenile trees 0 - 0.5m in height	The number of shrubs or juvenile trees <0.5m in height provides an indication of establishment success and/or natural ecosystem recruitment and that it is comparable to that of the local remnant vegetation	✓		No./area	0	73	2	33
			shrubs and juvenile trees 0.5 - 1m in height	The number of shrubs or juvenile trees 0.5-1m in height provides an indication of establishment success, growth and/or natural ecosystem recruitment and that it is comparable to that of the local remnant vegetation		✓	No./area	0	75	4	23
			shrubs and juvenile trees 1 - 1.5m in height	The number of shrubs or juvenile trees 1-1.5m in height provides an indication of establishment success, growth and/or natural ecosystem recruitment and that it is comparable to that of the local remnant vegetation		✓	No./area	0	39	1	1
			shrubs and juvenile trees 1.5 - 2m in height	The number of shrubs or juvenile trees 1.5-2m in height provides an indication of establishment success, growth and/or natural ecosystem recruitment and that it is comparable to that of the local remnant vegetation	✓		No./area	0	19	1	3
			shrubs and juvenile trees >2m in height	The number of shrubs or juvenile trees >2m in height provides an indication of establishment success, growth and/or natural ecosystem recruitment and that it is comparable to that of the local remnant vegetation		✓	No./area	0	9	1	4
	Ecosystem structure	The vegetation is developing in structure and complexity comparable to that of the local remnant vegetation	Foliage cover 0.5 - 2 m	Projected foliage cover provided by perennial plants in the 0.5 - 2m vertical height stratum indicates the community structure is comparable to that of the local remnant vegetation	✓		% cover	0	8	0	0
			Foliage cover 2 - 4m	Projected foliage cover provided by perennial plants in the 2 - 4m vertical height stratum indicates the community structure is comparable to that of the local remnant vegetation	✓		% cover	0	0	0	9
			Foliage cover 4 - 6m	Projected foliage cover provided by perennial plants in the 4 - 6m vertical height stratum indicates the community structure is comparable to that of the local remnant vegetation		✓	% cover	0	5	0	17





## Cadia Valley Operations

Rehabilitation Phase	Aspect or ecosystem component	Completion criteria	Performance Indicators	Description of performance indicators	Primary Performance Indicators	Secondary Performance Indicators	Unit of measurement	2016 Woodland ecosystem range		2016 Riparian ecosystem range	
Performance indicators are quantified by the range of values obtained from replicated reference sites assessed in 2016								Lower KPI	Upper KPI	Lower KPI	Upper KPI
Phase 5: Ecosystem & Landuse Development	Ecosystem structure	The vegetation is developing in structure and complexity comparable to that of the local remnant vegetation	Foliage cover >6m	Projected foliage cover provided by perennial plants >6m vertical height stratum indicates the community structure is comparable to that of the local remnant vegetation	✓		% cover	51	56	37	60
	Tree diversity	Vegetation contains a diversity of maturing tree and shrubs species comparable to that of the local remnant vegetation	Tree diversity	The diversity of trees or shrubs with a stem diameter greater than 5cm is comparable to the local remnant vegetation		✓	species/area	1	6	3	5
				The percentage of maturing trees and shrubs with a stem diameter greater than 5cm dbh which are local endemic species and these percentages are comparable to the local remnant vegetation	✓		%	100	100	100	100
	Tree density	Vegetation contains a density of maturing tree and shrubs species comparable to that of the local remnant vegetation	Tree density	The density of shrubs or trees with a stem diameter > 5cm is comparable to that of the local remnant vegetation	✓		No./area	9	43	8	26
			Average dbh	Average tree diameter of the tree population provides a measure of age, (height) and growth rate and that it is trending towards that of the local remnant vegetation.		✓	cm	25	64	31	72
	Ecosystem health	The vegetation is in a condition comparable to that of the local remnant vegetation.	Live trees	The percentage of the tree population which are live individuals and that the percentage is comparable to the local remnant vegetation		✓	% population	88.9	100	87.5	92.3
			Healthy trees	The percentage of the tree population which are in healthy condition and that the percentage is comparable to the local remnant vegetation	✓		% population	11.1	70.83 3	0	19.2
			Medium health	The percentage of the tree population which are in a medium health condition and that the percentage is comparable to the local remnant vegetation		✓	% population	20.8	77.8	69.2	87.5
			Advanced dieback	The percentage of the tree population which are in a state of advanced dieback and that the percentage is comparable to the local remnant vegetation		✓	% population	0	4.7	0	3.8
			Dead Trees	The percentage of the tree population which are dead (stags) and that the percentage is comparable to the local remnant vegetation		✓	% population	0	11.1	7.7	12.5
			Mistletoe	The percentage of the tree population which have mistletoe provides an indication of community health and habitat value and that the percentage is comparable to the local remnant vegetation		✓	% population	0	10.0	3.8	12.5



## Cadia Valley Operations

Rehabilitation Phase	Aspect or ecosystem component	Completion criteria	Performance Indicators	Description of performance indicators	Primary Performance Indicators	Secondary Performance Indicators	Unit of measurement	2016 Woodland ecosystem range		2016 Riparian ecosystem range	
<i>Performance indicators are quantified by the range of values obtained from replicated reference sites assessed in 2016</i>								Lower KPI	Upper KPI	Lower KPI	Upper KPI
Phase 5: Ecosystem & Landuse Development	Ecosystem health		Flowers/fruit: Trees	The presence of reproductive structures such as buds, flowers or fruit provides evidence that the ecosystem is maturing, capable of recruitment and can provide habitat resources comparable to that of the local remnant vegetation	✓		% population	40	83.3	0	0
			Hollows	The presence of hollows provides evidence that the ecosystem is maturing and can provide habitat resources comparable to that of the local remnant vegetation		✓	% population	0	44.4	7.7	37.5



## Cadia Valley Operations

Weed	NOX	WONS	Known	Potential	Control Options	Timing	Priority
Blackberry ( <i>Rubus fruticosus</i> agg. spp.)	X	X	X		Selective herbicide (spray) Strong competition to reduce establishment. Biological control options available.	Spring / early summer prior to seed set.	High
St Johns Wort ( <i>Hypericum perforatum</i> )	X		X		Selective herbicide (spray) Strategic grazing where possible to reduce seed set Strong competition to reduce establishment. Biological control options available.	Spring / early summer prior to seed set.	High
Bathurst Burr ( <i>Xanthium spinosum</i> )	X		X		Selective herbicide (spray) Mechanical / chipping for isolated plants / small patches. Strong competition to reduce establishment.	Following summer rains and before seed set.	High
Sweet Briar ( <i>Rosa rubiginosa</i> )	X		X		Selective herbicide (spray / cut stem method) Strong competition to reduce establishment.	Spring / early summer prior to seed set.	High
Hawthorn ( <i>Crataegus</i> spp)				X	Selective herbicide (spray / cut stem / injection method) Strong competition to reduce establishment.	Spring / early summer prior to seed set.	Medium
Serrated Tussock ( <i>Nassella trichotoma</i> )	X	X	X		Semi-selective herbicide (spray) Strong competition to reduce establishment Mechanical / chipping for isolated plants / small patches	Late winter / early spring prior to seed set	High
Chilean needle grass ( <i>Nassella neesiana</i> )	X	X	X		Semi-selective herbicide (spray) Strong competition to reduce establishment Mechanical / chipping for isolated plants / small patches. Strategic grazing where possible to reduce seed set (young growth only)	Late winter / early spring prior to seed set	High
Phalaris ( <i>Phalaris aquatica</i> )			X		Non-selective herbicide (spray) Strong competition to reduce establishment Strategic grazing where possible to reduce seed set	Late winter / early spring prior to seed set	Low
Cocksfoot ( <i>Dactylis glomerata</i> )			X		Non-selective herbicide (spray) Strong competition to reduce establishment Strategic grazing where possible to reduce seed set	Late winter / early spring prior to seed set	Low
Scotch thistle ( <i>Onopordum</i> spp)	X		X		Selective herbicide (spray) Strong competition to reduce establishment. Biological control options available.	Late winter / early spring prior to seed set	High
Nodding Thistle ( <i>Carduus nutans</i> )	X			X	Selective herbicide (spray) Strong competition to reduce establishment. Biological control options available.	Late winter / early spring prior to seed set	High
Sticky Nightshade ( <i>Solanum Sisymbriifolium</i> )				X	Selective herbicide (spray) Strong competition to reduce establishment.	Spring / early summer prior to seed set.	Medium
Other thistles ( <i>Asteraceae</i> family)			X		Selective herbicide (spray) Strategic grazing (spray graze) where possible to reduce seed set Strong competition to reduce establishment. Biological control options available (species specific).	Late winter / early spring prior to seed set	Low
Basket Willow ( <i>Salix viminalis</i> )		X	X		Non-selective herbicide (Spray / cut stump / injection methods) Mechanical removal	Spring / summer while actively growing.	High



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Weed	NOX	WONS	Known	Potential	Control Options	Timing	Priority
Brome grass ( <i>Bromus spp.</i> )			X		Semi-selective herbicide (spray) Strong competition to reduce establishment Strategic grazing where possible to reduce seed set (young growth only)	Spring / early summer prior to seed set.	Low
Horehound ( <i>Marrubium vilgare</i> )			X		Selective herbicide (spray) Strong competition to reduce establishment. Biological control options available.	Spring / early summer prior to seed set.	Medium
Sifton bush ( <i>Cassina arcuate</i> )	X		X		Native colonising species: will only be controlled where dominant and excluding the regeneration / establishment of other native species. Selective herbicide (spray) Mechanical ripping / slashing Strong competition to reduce establishment.	Spring / early summer prior to seed set.	Low
Paterson's Curse ( <i>Echium plantagineum</i> )			X		Selective herbicide Strategic grazing (spray graze) where possible to reduce seed set Strong competition to reduce establishment. Biological control options available.	Late winter / early spring prior to seed set	Low
Hemlock ( <i>Conium maculatum</i> )				X	Selective herbicide (spray) Strong competition to reduce establishment.	Late winter / early spring prior to seed set	Low
Fleabane ( <i>Conyza spp.</i> )			X		Selective herbicide (spray) Strong competition to reduce establishment.	Late winter / early spring prior to seed set	Low
Capeweed ( <i>Arctotheca calendula</i> )			X		Selective herbicide (spray) Strong competition to reduce establishment.	Late winter / early spring prior to seed set	Low
Blackberry nightshade ( <i>Solanum nigrum</i> )			X		Selective herbicide (spray) Strong competition to reduce establishment.	Spring / early summer prior to seed set.	High
Barley Grass ( <i>Hordeum leporinum</i> )			X		Semi-selective herbicide (spray) Strong competition to reduce establishment Strategic grazing where possible to reduce seed set (young growth only)	Late winter / early spring prior to seed set	Low
Ryegrass ( <i>Lolium spp</i> )			X		Semi-selective herbicide (spray) Strong competition to reduce establishment Strategic grazing where possible to reduce seed set (young growth only)	Late winter / early spring prior to seed set	Low
Privet ( <i>Ligustrum spp</i> )	X			X	Selective herbicide (Spray / cut stump / injection methods) Mechanical removal	Spring / early summer prior to seed set.	High
English / scotch Broom ( <i>Cytisus spp</i> )	X	X		X	Selective herbicide (Spray / cut stump / injection methods) Strong competition to reduce establishment. Biological control options available.	Spring / early summer prior to seed set.	High
Heliotrope ( <i>Heliotropium spp</i> )			X		Selective herbicide (spray) Strong competition to reduce establishment. Biological control options available.	Late winter / early spring prior to seed set	Medium
Fireweed ( <i>Senecio madagascariensis</i> )				X	Selective herbicide (spray) Strong competition to reduce establishment.	Late winter / early spring prior to seed set	Medium

## 9.12 PESTS AND PEST CONTROL MEASURES

The following table provides a list of known pests that occur within the region of the three offset portions (drawn from fauna surveys, management experience and regional observations). Pests have been prioritised based on their potential to impact on biodiversity / desired outcomes. The list of priorities will be used to assist in the preparation and execution of field based pest control.

The control of pests will be undertaken using an integrated approach that reduce the prevalence (and impact) of the pest and include destruction of the pest / removal of harbor / habitat where possible.

Where poisoning is identified as a potential control option, works will be conducted in conjunction with Central Tablelands Local Land Services. Works will be implemented by local qualified pest control contractors.

Pest	Status	Known / Potential	Control Options.	Priority
Feral Pig ( <i>sus scrofa</i> )	NSW declared pest species	Known	Trapping Shooting 1080 poisoning	High
Fox ( <i>Vulpes vulpes</i> )	NSW declared pest species	Known	Shooting 1080 poisoning	High
Rabbit ( <i>Oryctolagus cuniculus</i> )	NSW declared pest species	Known	Pindone / 1080 poisoning Harbor / burrow destruction	High
Wild Dog ( <i>Canis lupus</i> )	NSW declared pest species	Potential	Shooting 1080 poisoning	High
Feral cat ( <i>Felis catus</i> )		Known	Trapping Shooting	High
Brown Hare ( <i>Lepus europaeus</i> )		Known	No current proposed control options. Control options will only be considered where population numbers are impacting on biodiversity outcomes.	Low
Eastern Grey Kangaroo ( <i>Macropus giganteus</i> )		Known	Will only be controlled where population numbers are impacting on biodiversity outcomes. Shooting / commercial harvesting. (Pending approval / issue of tags by NPWS)	Medium
Fallow Deer		Known	Shooting	Medium
Livestock (Sheep, cattle, goats)		Known	Round-up, trapping, removal from offset areas. Exclusion through fencing. Shooting (feral goats)	Medium
Introduced birds: Common Blackbird Common Starling Common Myna House Sparrow		Known	No current proposed control options. Control options will only be considered where population numbers are impacting on biodiversity outcomes.	Low
Rodents: House mouse Black rat		Known	No current proposed control options. Control options will only be considered where population numbers are impacting on biodiversity outcomes.	Low

### 9.13 THREATENED SPECIES RECOVERY ASSISTANCE

The following table provides a summary of key considerations for known threatened species and Endangered Ecological Communities that occur within the offset portions. Information where available is drawn from draft or final recovery plans, threatened species profiles etc for the relevant species. Each management requirement has been included in the action plans (above) or other section within the plan and is referenced accordingly.

Species / Community	Reference	Key Management Requirements	Action Plan
Heath Monitor ( <i>Varanus rosenbergi</i> )	NSW Dept of Environment and Heritage website – species profile.	Regeneration works (correct species selection, density of planting)	1 & 2
		Maintain / improve structural diversity	1 & 2
		Use appropriate burning regimes and intensity	3
		Control pest species	5
		Cease firewood collection / tidying up / removal of logs etc	6
		Cease bush rock removal.	6
Speckled Warbler ( <i>Pyrrholaemus sagittatus</i> )	NSW Dept of Environment and Heritage website – species profile.	Regeneration works (correct species selection, density of planting (open woodland)	1 & 2
		Maintain / improve structural diversity (Patches of dense shrubs for nesting)	1 & 2
		Use appropriate burning regimes and intensity	3
		Control pest species and weeds	4 & 5
		Cease firewood collection / tidying up / removal of logs etc.	6
Brown Tree Creeper ( <i>Climacteris picumnus</i> )	NSW Dept of Environment and Heritage website – species profile.	Retention / regeneration of woodland habitat (open woodland)	1 & 6
		Conservation of habitat trees (including large / old / dead trees with hollows)	6
		Regeneration works (correct species selection, density of planting)	1 & 2
		Cease firewood collection / tidying up / removal of logs etc	6
		Control pest species and weeds	4 & 5
		Low frequency burning.	3
Diamond Fire-tail Finch ( <i>Stagonopleura guttata</i> )	NSW Dept of Environment and Heritage website – species profile.	Regeneration works (correct species selection, density of planting (open woodland)	1 & 2
		Diverse native understorey	1 & 2
		Maintain / improve structural diversity (Patches of dense shrubs for nesting)	1 & 2
		Use appropriate burning regimes and intensity	3
		Control pest species and weeds	4 & 5
		Cease firewood collection / tidying up / removal of logs etc.	6
Superb Parrot ( <i>Polytelis swainsonii</i> )	National Recovery Plan for the Superb Parrot <i>Polytelis swainsonii</i>	Reduce grazing by domestic stock.	7
		Retention / regeneration of woodland habitat	1 & 6
		Conservation of habitat trees (including large / old / dead trees with hollows)	6
		Regeneration works (correct species selection, density of planting)	1 & 2
		Cease firewood collection.	6
Barking Owl ( <i>Ninox connivens</i> )	DRAFT Recovery Plan for the Barking Owl <i>Ninox connivens</i>	Control pest species and weeds	4 & 5
		Retention / regeneration of woodland habitat	1 & 6
		Conservation of habitat trees (including large / old / dead trees with hollows)	6
		Regeneration works (correct species selection, density of planting (open woodland))	1 & 2
		Cease firewood collection.	6



Species / Community	Reference	Key Management Requirements	Action Plan
Little Eagle ( <i>Hieraetus morphnoides</i> ),	NSW Dept of Environment and Heritage website – species profile.	Retention / regeneration of woodland habitat	1 & 6
		Conservation of large habitat trees for nesting)	6
		Regeneration works (correct species selection, density of planting)	1 & 2
		Cease firewood collection.	6
		Control pest species and weeds	4 & 5
		Risk on non-target damage through fox and rabbit poisoning programmes	6
Yellow-bellied Sheathtail Bat ( <i>Saccolaimus flaviventris</i> )	NSW Dept of Environment and Heritage website – species profile.	Retention / regeneration of woodland habitat	1 & 6
		Conservation of habitat trees (including large / old / dead trees with hollows)	6
		Regeneration works (correct species selection, density of planting)	1 & 2
		Cease firewood collection.	6
		Control pest species and weeds	4 & 5
Large Bentwing Bat ( <i>Miniopterus schreibersii</i> )	NSW Dept of Environment and Heritage website – species profile.	Retention / regeneration of woodland habitat in vicinity of cave locations.	1 & 2
		Conservation of bush rock / rock escarpments / caves	6
		Regeneration works (correct species selection, density of planting)	1 & 2
		Cease firewood collection	6
		Control pest species and weeds	4 & 5
*Squirrel Glider ( <i>Petaurus norfolcensis</i> )	NSW Dept of Environment and Heritage website – species profile.	Retention / regeneration of bushland habitat with shrub / acacia mid-story.	2
		Conservation of habitat trees (including large / old / dead trees with hollows)	6
		Regeneration works (correct species selection, density of planting)	1 & 2
		Cease firewood collection.	6
		Control pest species and weeds	4 & 5
White Box, Yellow Box, Blakely's Red Gum Woodland.  Grassy White Box Woodlands.  Yellow Box/Red Gum Grassy Woodlands.	National Recovery Plan: White Box- Yellow Box- Blakely's Red Gum Grassy Woodland and Derives Native Grassland.	<b>Objectives</b>	
		Achieve no net loss in extent and condition of the EEC	1 & 2
		Increasing protection of sites in good condition	1 & 2
		Increasing landscape function of the EEC through management and restoration	1 & 2 Section 9.10
		Increasing transitional areas around remnants and linkages between remnants.	Section 3.9
		<b>Management Practices</b>	
		Avoid fertiliser use	1
		Control weeds	4
		Regeneration works (correct species selection, density of planting)	1 & 2
		Maintain / improve connectivity	Section 3.9
		Maintain / improve structural diversity	1 & 2
		Use strategic grazing / otherwise exclude	7
		Use appropriate burning regimes and intensity	3
		Control pest species	5
		Cease firewood collection / tidying up / removal of logs etc	6
*Identified in 2008 survey of Black Rock Range: not identified during 2006 survey.			



#### 9.14 REVEGETATION OF CLEARED AREAS

The following figures show areas within the Cadia East Offset (Black Rock Range (Figure 9.8), Flyers Creek (Figure 9.9) and Stratton Vale (Figure 9.10) portions that require rehabilitation. The vegetation community proposed (either 1a or 2b) has been selected to mirror the adjacent vegetation type suitable to the location (based on soil and topography). The vegetation types have been described by FloraSearch (FloraSearch 2005)

A priority for offset areas will be to manage the site to reinstate ecological functionality (in line with the principles of Landscape Function Analysis) particularly on the upper eastern slopes of Black Rock Range. Works may include:

- Seeding / encouragement of perennial (native) grasses on degraded slope areas to trap sediment, nutrient and water. This may initially be undertaken in strips across the contour and encouraged / expanded to cover more of the slope areas. Seeding other species (in line with target vegetation community) as the slopes stabilise.
- In line with Natural Sequence Farming principles, installation of 'leaky weir' structures (rock boulders / logs etc) in upper slope drainage lines to trap sediment, nutrient and water.
- Management to encourage the build up of organic matter and improvement in soil health / structure. Intermittent disturbance may be used (such as occasional grazing) to assist in the process.

Prior to undertaking additional rehabilitation works an assessment will be carried out on the resilience of the area and whether the native vegetation community is capable of 'self or assisted' repair, back to a functional community. If the area has good resilience the area will be encouraged to return without intensive rehabilitation works. Several tools may be trialled and used to assist the recovery including targeted grazing, scarification, fire, brush matting and seed broadcast.

The following methods will be applied to areas with low resilience:

- Direct seeding (restricted to trafficable / arable areas)
  - Site preparation (2-3 knockdown sprays applied in 2m bands along the contour at a suitable spacing – nominally 5 metres apart)
  - Selection of appropriate native species seed consistent with the target community
  - Direct seeding (along the contour in prepared areas)
  - Monitoring of representative sites
  - Maintenance (including re-sowing if required)
- Planting of tubestock (all other areas).
  - Site preparation (knockdown spray)
  - Ripping (across the contour)
  - Site preparation (2<sup>nd</sup> knockdown spray)
  - Planting tubestock consistent with the target community
  - Knockdown spray (around planted tubestock)
  - Monitoring of representative sites
  - Maintenance (including weed control and replanting if required)



## Cadia Valley Operations

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Species selection for revegetation will be based on the following lists (for Communities 1a, 2b and gully / riparian areas) which have been extracted from the FloraSearch survey (FloraSearch 2005) conducted as part of the Cadia East Environmental Assessment or from baseline vegetation assessments. From the survey lists, the following native species (Table 4.1) have been selected due to the potential for the collection and germination of seed to produce tubestock and / or for direct seeding purposes. The actual species sown / planted will depend on the availability of seed at the time of conducting rehabilitation works.

During implementation of the above rehabilitation techniques, species lists, numbers of tubestock for each species and seeding rates will be adjusted in an attempt to provide the structural diversity for the target vegetation community. Relevant reference sites used in the CVO annual rehabilitation monitoring program will also be used to determine appropriate species and densities. For example for woodland community 1a, CVO will attempt to rehabilitate the area with a eucalypt canopy with a relatively sparse mid-story and an under-story dominated by native grasses and herbs.

At Black Rock Range, a large proportion of the target vegetation community exists as a degraded native grassland and therefore rehabilitation efforts will largely focus on reinstating 'missing' structural elements and species which are primarily tree and shrub species. A reduction in grazing pressure initially followed by planned intermittent grazing is likely to assist the recovery of ground flora. Regular monitoring and comparison to reference sites will determine the need for assisted regeneration.

At Flyers Creek, the understory is dominated by introduced perennial grasses and there are few native ground cover species. In these sites, the aim will be to increase the tree and shrub cover.

At Stratton vale portion is open White Box remnant with improved pastures (*Phalaris*) which dominate the paddock clearings but *Bothriochloa* and *Microlaena* persist within the rocky areas. Mixture of large old growth trees and regrowth trees.

Rehabilitation success will be determined as described in Section 9.10

**Potential species for rehabilitation (communities 1a, 2b & gully / riparian)**

Scientific Name	Common Name	Vegetation Community		
		1a	2b	Gully /Riparian
<b>Cupressaceae</b>				
<i>Callitris endlicheri</i>	Black Cypress Pine	•		•
<b>Casuarinaceae</b>				
<i>Casuarina cunninghamiana</i>	River she-oak			•
<i>Allocasuarina diminuta</i>				•
<b>Dilleniaceae</b>				
<i>Hibbertia obtusifolia</i>	Grey Guinea Flower	•	•	•
<b>Epacridaceae</b>				
<i>Brachyloma daphnoides</i>	Daphne Heath			•
<i>Styphelia triflora</i>	Five Corners	•		•
<b>Fabaceae: Faboideae</b>				
<i>Dillwynia phyllicoides</i>				•
<i>Glycine clandestina</i>	Twining Glycine	•		•
<i>Hardenbergia violacea</i>	False Sarsaparilla	•		•
<i>Indigofera australis</i>	Austral Indigo	•		•
<i>Pultenaea procumbens</i>	Heathy Bush-pea			•
<b>Fabaceae: Mimosoideae</b>				
<i>Acacia buxifolia</i>	Box-leaf Wattle			•
<i>Acacia dealbata</i>	Silver Wattle	•	•	•
<i>Acacia decora</i>	Western Golden Wattle	•	•	
<i>Acacia doratoxylon</i>	Currawang	•		•
<i>Acacia implexa</i>	Hickory	•		•
<i>Acacia leucolada</i>		•	•	
<i>Acacia melanoxylon</i>	Blackwood wattle			•
<i>Acacia paradoxa</i>	Kangaroo Thorn		•	•
<i>Acacia penninervis</i>	Mountain Hickory			•
<i>Acacia ulicifolia</i>	Prickly Moses			•
<i>Acacia vestita</i>	Boree wattle	•	•	•
<b>Goodeniaceae</b>				
<i>Goodenia hederacea</i>			•	•
<i>Goodenia pinnatifida</i>	Ivy Goodenia		•	
<b>Myrtaceae</b>				
<i>Calytrix tetragona</i>	Fringe-myrtle			•
<i>Eucalyptus albens</i>	White Box	•	•	•
<i>Eucalyptus blakelyi</i>	Blakely's Red Gum		•	•
<i>Eucalyptus bridgesiana</i>	Apple Box		•	•
<i>Eucalyptus dealbata</i>	Tumbledown Red Gum			•
<i>Eucalyptus gonicalyx</i>	Bundy		•	•
<i>Eucalyptus melliodora</i>	Yellow Box		•	•
<i>Eucalyptus macrorhyncha</i>	Red Stringybark	•	•	•
<i>Eucalyptus polyanthemus</i>	Red Box	•	•	•
<i>Eucalyptus viminalis</i>	Ribbon Gum		•	•
<i>Leptospermum multicaule</i>	Silver Teatree			•

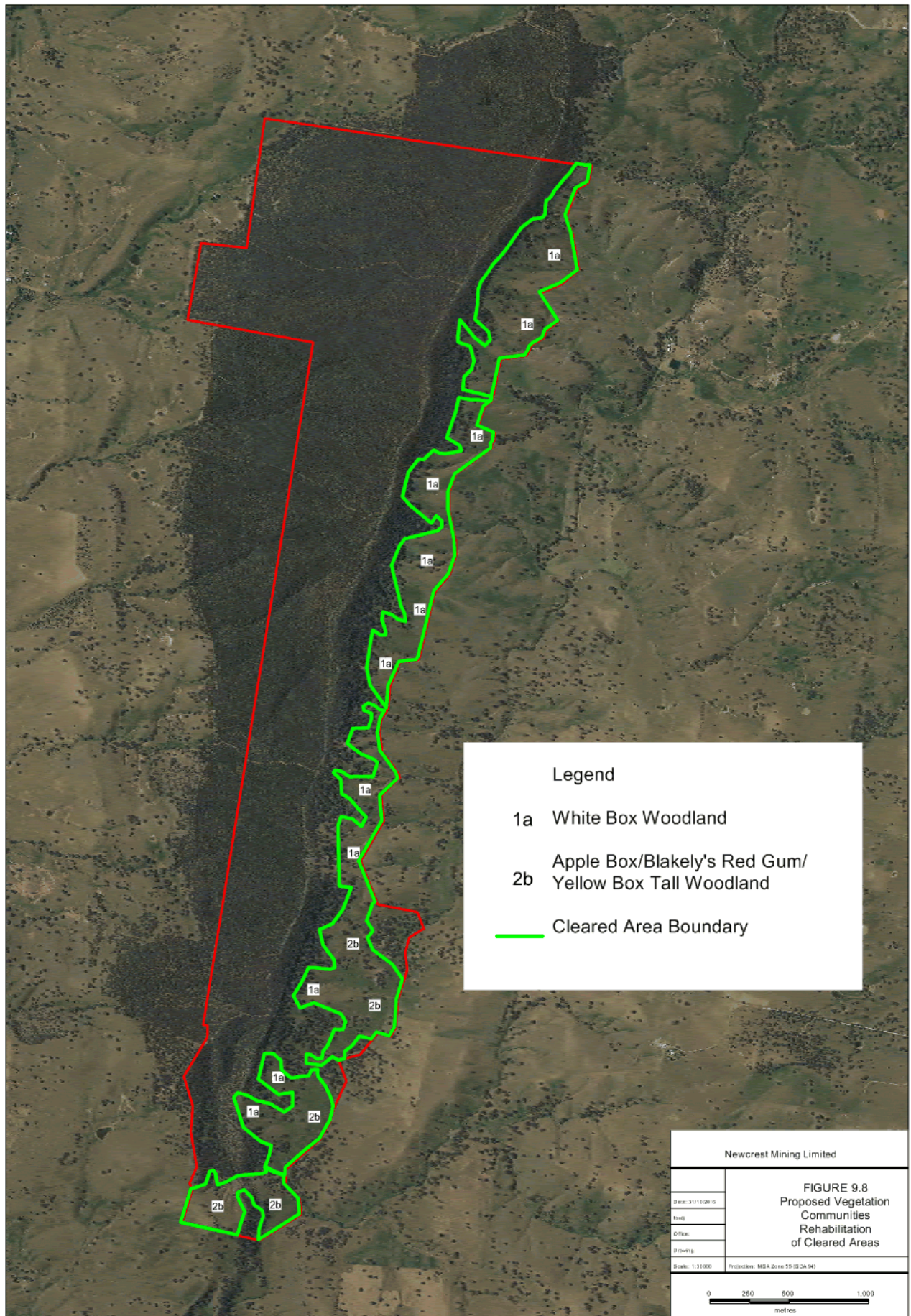
**Table 4.1 Potential species for rehabilitation (communities 1a, 2b & gully / riparian) (continued)**

Scientific Name	Common Name	Vegetation Community		
		1a	2b	Gully /Riparian
<b>Pittosporaceae</b>				
<i>Bursaria spinosa</i>		•	•	•
<b>Proteaceae</b>				
<i>Grevillea floribunda</i> ssp. <i>floribunda</i>	Seven Dwarfs Grevillea			•
<i>Grevillea ramosissima</i> ssp. <i>ramosissima</i>	Fan Grevillea			•
<b>Sapindaceae</b>				
<i>Dodonaea viscosa</i> ssp. <i>spatulata</i>	Sticky Hop-bush	•		•
<b>Santalaceae</b>				
<i>Exocarpus cupressiformis</i>	Native Cherry			•
<b>Sterculiaceae</b>				
<i>Brachychiton populneus</i>	Kurrajong	•	•	
<b>Cyperaceae</b>				
<i>Carex appressa</i>				•
<i>Carex inversa</i>	Knob Sedge	•	•	•
<i>Isolepis hookeriana</i>				•
<i>Lepidosperma laterale</i>	Broad Sword-sedge	•		•
<i>Luzula meridionalis</i>	Field Woodrush	•	•	•
<i>Schoenus apogon</i>			•	
<b>Juncaceae</b>				
<i>Juncus homalocaulis</i>	A Rush	•	•	
<i>Juncus remotiflorus</i>				•
<i>Juncus subsecundus</i>	A Rush	•	•	•
<b>Lomandraceae</b>				
<i>Lomandra filiformis</i> ssp. <i>coriacea</i>	Wattle Matrush	•	•	•
<i>Lomandra filiformis</i> ssp. <i>filiformis</i>	Iron Grass			•
<i>Lomandra glauca</i>	Pale Matrush			•
<i>Lomandra multiflora</i>	Many-flowered Mat-rush	•		•
<b>Phormiaceae</b>				
<i>Dianella caerulea</i>				•
<i>Dianella longifolia</i>			•	
<i>Dianella revoluta</i>		•	•	•
<i>Stypandra glauca</i>	Nodding Blue Lily			•

**Table 4.1 Potential species for rehabilitation (communities 1a, 2b & gully / riparian) (continued)**

Scientific Name	Common Name	Vegetation Community		
		1a	2b	Gully /Riparian
<b>Poaceae</b>				
<i>Agrostis avenacea</i>		•		
<i>Aristida behriana</i>	Bunch Wiregrass		•	
<i>Aristida ramosa</i> var. <i>speciosa</i>			•	•
<i>Aristida vagans</i>			•	
<i>Austrodanthonia auriculata</i>	Lobed Wallaby Grass	•		
<i>Austrodanthonia caespitosa</i>	Ringed Wallaby Grass		•	
<i>Austrodanthonia eriantha</i>	Hill Wallaby Grass	•	•	•
<i>Austrodanthonia laevis</i>		•		
<i>Austrodanthonia racemosa</i> var. <i>racemosa</i>	A Wallaby Grass	•	•	
<i>Austrostipa densiflora</i>				•
<i>Austrostipa scabra</i> ssp. <i>falcata</i>	Speargrass	•	•	
<i>Bothriochloa macra</i>	Red Grass	•	•	
<i>Dichelachne hirtella</i>	A Plumegrass		•	•
<i>Dichelachne sieberiana</i>	A Plumegrass			•
<i>Echinopogon caespitosus</i>				•
<i>Echinopogon ovatus</i>	Forest Hedgehog Grass	•		•
<i>Eleocharys acuta</i>	Spike rush			•
<i>Elymus scaber</i>	Wheat Grass	•	•	
<i>Microlaena stipoides</i> var. <i>stipoides</i>	Weeping Grass	•	•	•
<i>Phragmites australis</i>	common reed			•
<i>Poa labillardieri</i>	Tussock	•	•	•
<i>Poa sieberiana</i> var. <i>sieberiana</i>	Fine-leaved Tussock Grass	•	•	
<i>Typha</i> spp.	cumbungi / bullrush			•
<b>Xanthorrhoeaceae</b>				
<i>Xanthorrhoea glauca</i> ssp. <i>angustifolia</i>	A Grass Tree		•	•

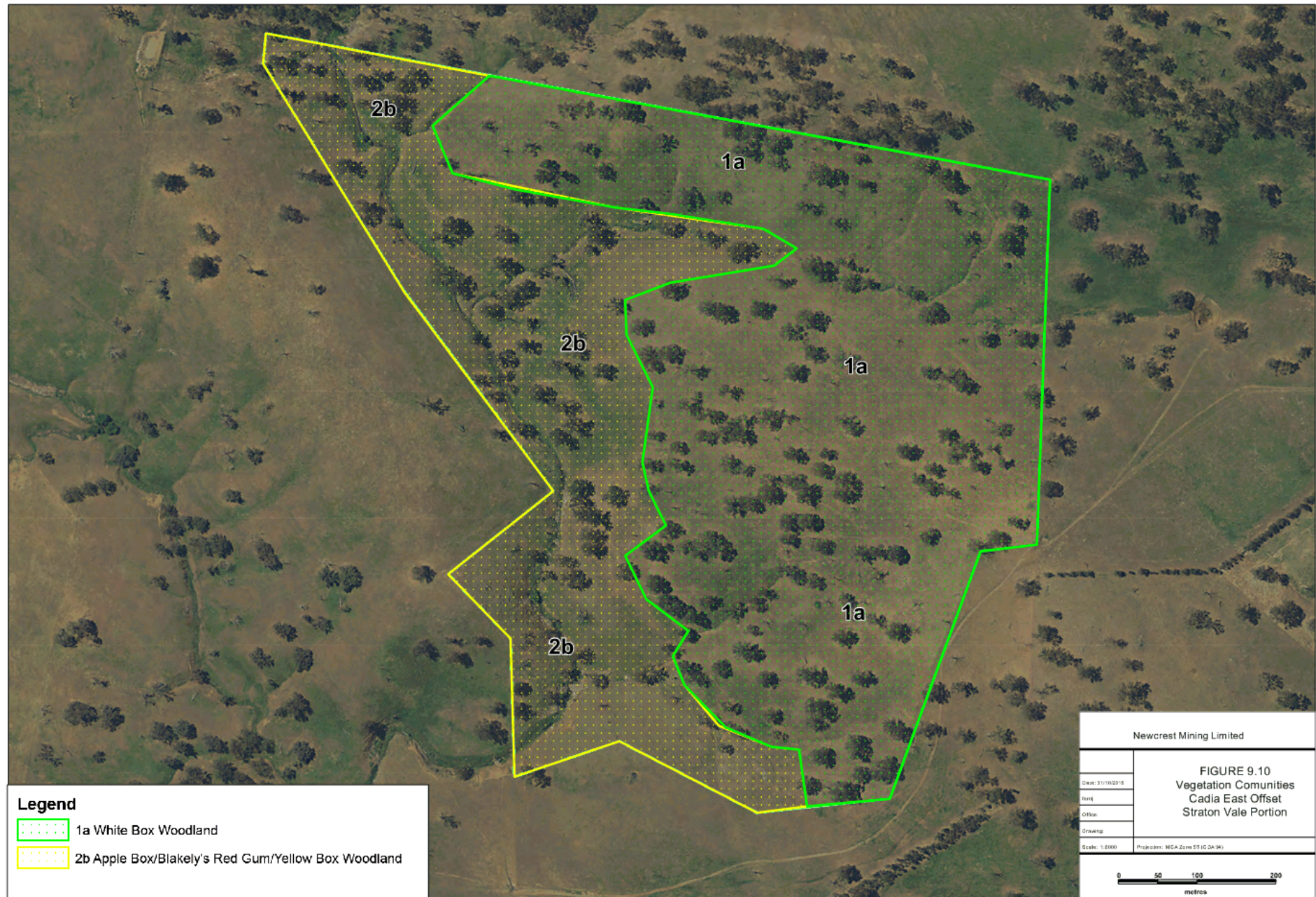












## Appendix C

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### THE ENVIRONMENTAL ASSESSMENT REPORT FOR THE CVO BIODIVERSITY OFFSET MODIFICATION





Cadia Valley Operations

# Cadia Valley Operations Biodiversity Offset Area Modification

Environmental Assessment | May 2015



**NEWCREST**  
MINING LIMITED

CADIA VALLEY OPERATIONS BIODIVERSITY OFFSET AREA MODIFICATION  
ENVIRONMENTAL ASSESSMENT

PREPARED BY  
RESOURCE STRATEGIES PTY LTD

APRIL 2015  
Project No. NEC-14-81  
Document No. 00672356

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## 1 INTRODUCTION

### 1.1 BACKGROUND

Project Approval (PA) for the Cadia East Project was granted by the New South Wales (NSW) Minister for Planning under Part 3A of the *Environmental Planning and Assessment Act, 1979* (EP&A Act) on 6 January 2010 (PA 06\_0295). The approval includes all components of the mining operations at Cadia (as described in Schedule 1 of the PA) including the Cadia East underground mine, Cadia Hill open cut mine, Ridgeway underground mine, the Concentrate Dewatering Facilities, and ancillary infrastructure. These integrated operations are herein referred to as the Cadia Valley Operations (CVO).

The CVO are located approximately 25 kilometres (km) south-west of Orange, in the Central Tablelands of NSW (Figure 1). Cadia Holdings Pty Limited (CHPL) is the owner and operator of the CVO and is a wholly owned subsidiary of Newcrest Mining Limited.

The Cadia Hill open pit, Ridgeway underground mine and Cadia East underground mine are located in the Cadia Valley within Mining Lease (ML) 1405, ML 1472, ML 1481 and ML 1449 (Figure 1). The Concentrate Dewatering Facilities are located approximately 25 km to the east of the Cadia Valley in the town of Blayney (Figure 1).

Operations at the Cadia Hill open pit ceased in 2012, and are currently under care and maintenance. With the Ridgeway Deeps extension, Ridgeway is currently scheduled to cease operations by 2017.

Cadia East involves panel cave mining to extract approximately 450 million tonnes of ore over a period of 21 years. The ore contains gold, copper and some molybdenum. Cadia East extends the life of the Cadia Valley Operations to approximately 2030. Figure 2 shows the approved General Arrangement at the end of the currently approved mine life.

The Cadia East underground mine is described in full in the Cadia East Project Environmental Assessment (the Cadia East EA) (CHPL, 2009). Since the grant of PA 06\_0295, the following Modifications have been granted:

- Mod 1 (2010) – a modification to allow construction of a decline beneath Cadia Hill open pit.

- Mod 2 (2010) – a modification of operations at the existing Blayney Dewatering Facility.
- Mod 3 (2011) – a modification to allow the realignment of a section of the concentrate and return water pipelines to Blayney.
- Mod 4 (2014) – a Modification to allow hydraulic preconditioning.
- Mod 5 (2014) – a Modification to allow blasting preconditioning.

A further Modification is proposed to adjust the CVO biodiversity offset area (this Modification).

### 1.2 OVERVIEW OF THE PROPOSED MODIFICATION

The biodiversity offset area Modification would include the following components:

- An approximately 14.2 hectare (ha) area of land would be removed from the Belubula River/Flyers Creek portion of the CVO biodiversity offset area.
- An approximately 16.5 ha area of land would be removed from the Black Rock Range portion of the CVO biodiversity offset area.
- An approximately 60.7 ha<sup>1</sup> replacement area within the CHPL-owned 'Stratton Vale' property would be added to the CVO biodiversity offset.

There would be no change to any of the currently approved mining operations and activities as a result of the Modification.

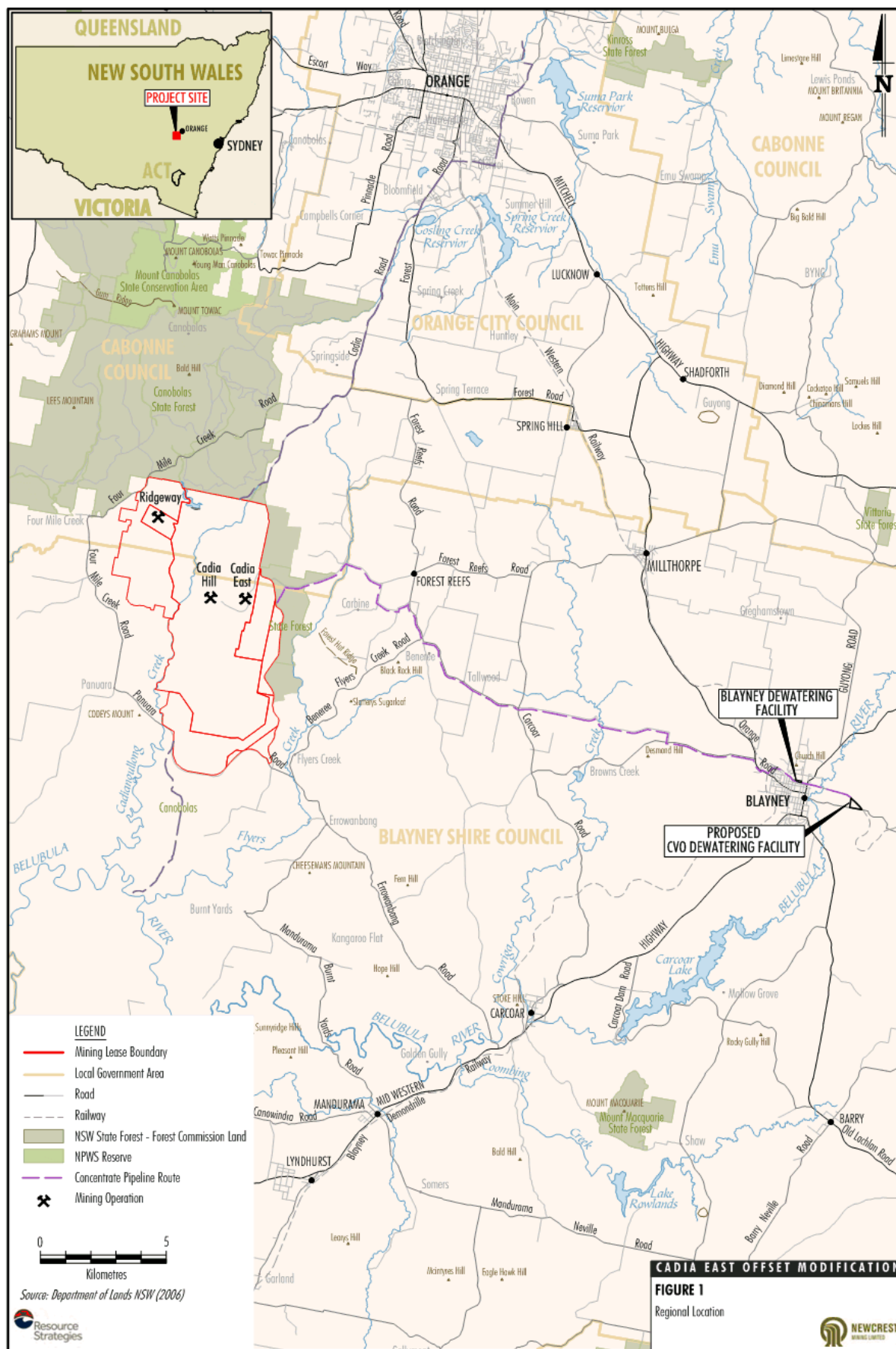
### 1.3 NEED FOR THE PROPOSED MODIFICATION

The CVO biodiversity offset strategy is described in the Cadia East EA (CHPL, 2009) and is shown in Figure 3.

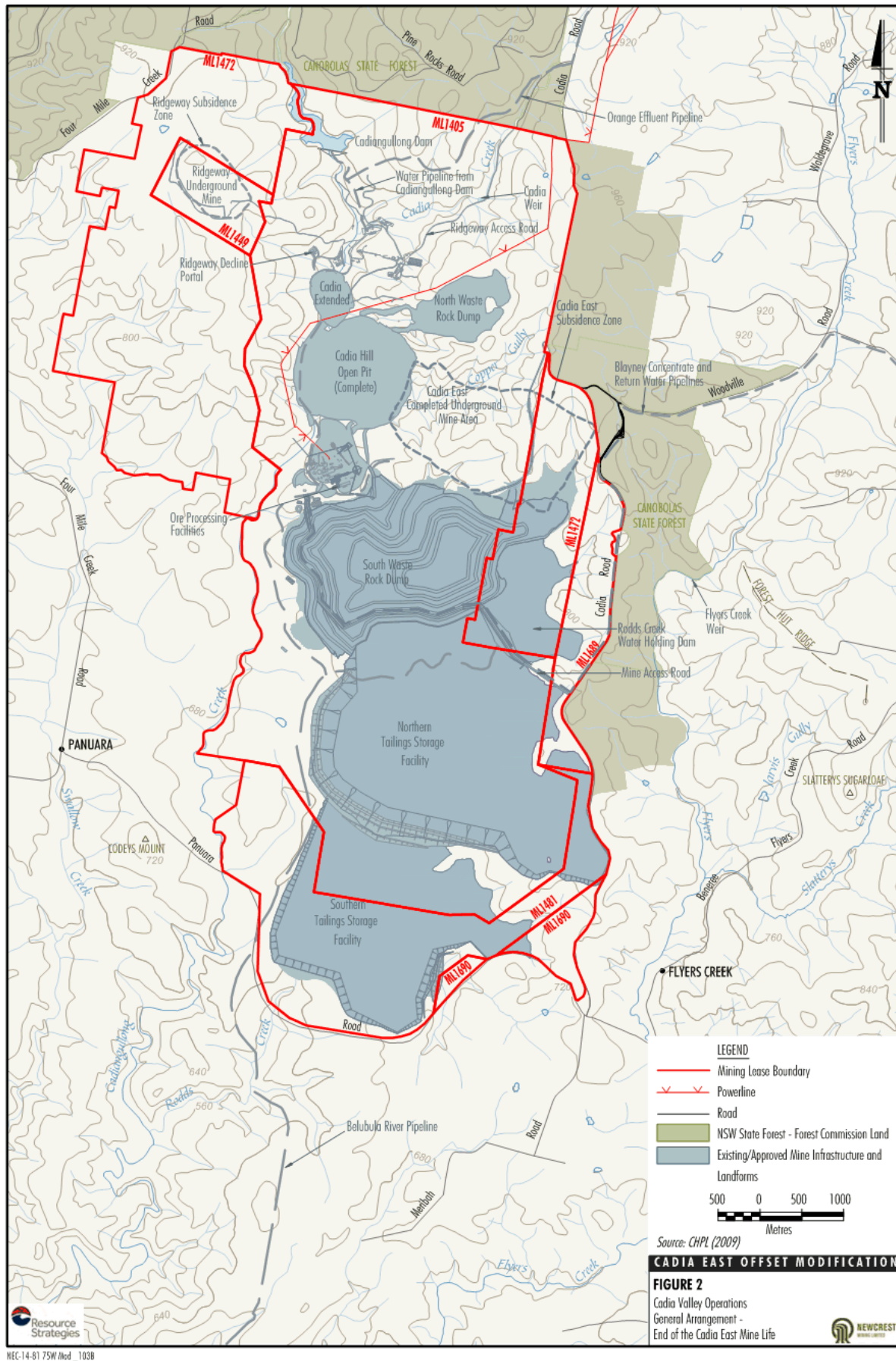
CHPL has recently discovered that there are some small land parcels within the CVO biodiversity offset area nominated in PA 06\_0295 that are unable to be secured in perpetuity due to several cadastral issues. These parcels of land are located in the vicinity of the Belubula River and Flyers Creek confluence, in the southern part of the Black Rock Range offset area, and at a Trigonometry (Trig) Station located on the ridgeline at Black Rock Range. Figures 4 and 5 show the locations of these areas.

<sup>1</sup> Note that the exact size of the replacement area would be subject to final survey.

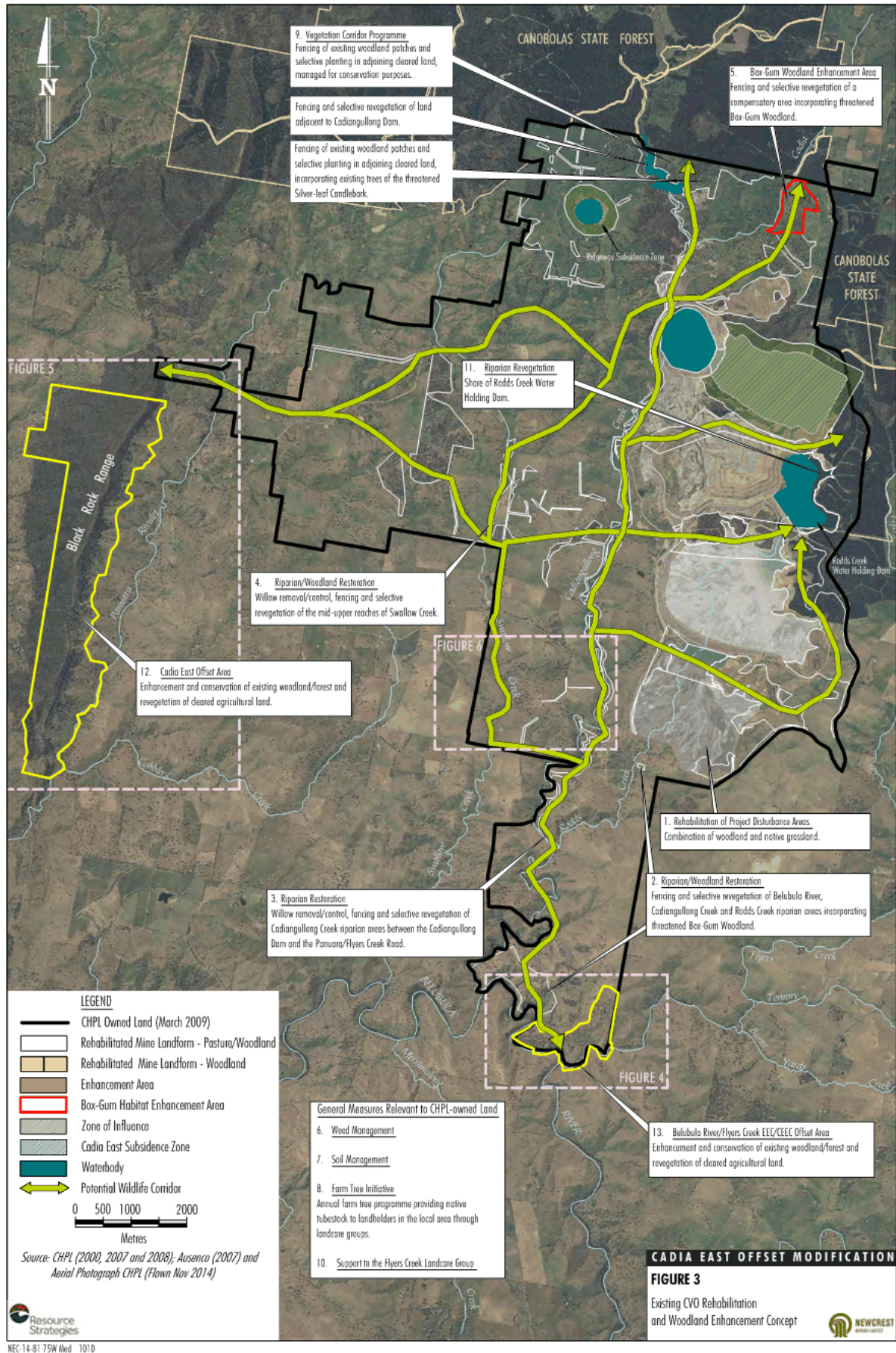




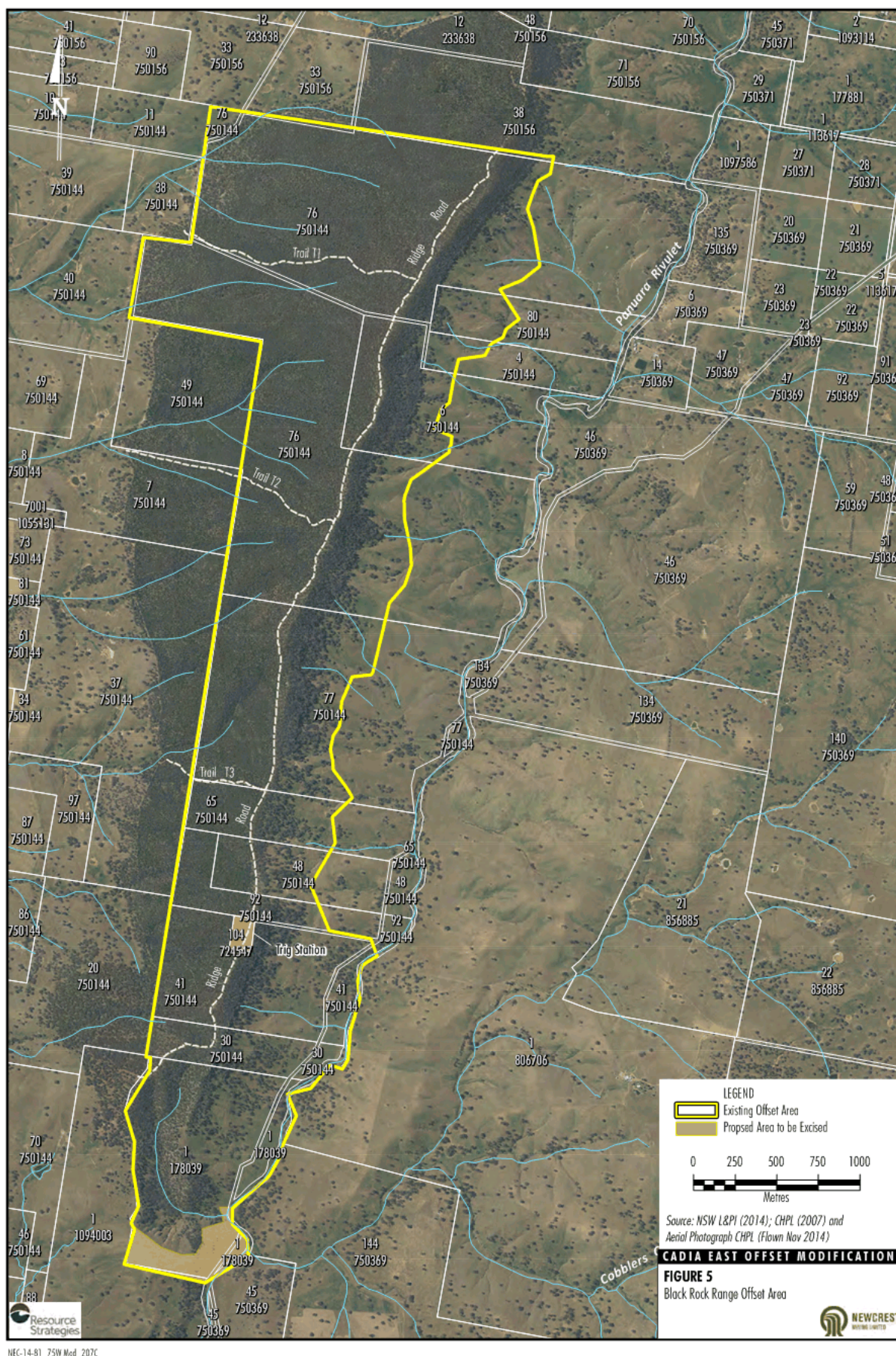












A modification to PA 06\_0295 is required to remove these areas from the current CVO biodiversity offset strategy, and to replace them with a new area with equal or better biodiversity values within the Stratton Vale property.

- (b) *investigate ways to salvage and beneficially use resources (including timber, fauna habitat, seed and soil resources) in areas subject to subsidence as far as is reasonable and feasible,*

*to the satisfaction of the Secretary.*

## 1.4 LEGISLATIVE FRAMEWORK

### New South Wales

Approval of the Modification is sought as a modification to PA 06\_0295 under section 75W of the EP&A Act. Section 75W of the EP&A Act relevantly provides:

#### 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 proponent 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 proponent of environmental assessment requirements with respect to the proposed modification that the proponent 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.*
- ...

Relevant conditions in PA 06\_0295 that pertain to the CVO biodiversity offset strategy are repeated below.

38. *The Proponent shall:*

- (a) *implement the biodiversity offset strategy as described in the EA, and summarised in Table 14 (and shown conceptually in Appendix 6); and*

Table 14: Biodiversity Offset Strategy

Area	Minimum Size
Black Rock Range Offset Area – Enhancement Area	653 ha
Black Rock Range Offset Area – Revegetation Area	173 ha
Flyers Creek and Belubula River Offset Area	112 ha
<b>Total</b>	<b>938 ha</b>

39. *Within 2 years of the date of this approval, the Proponent shall make suitable arrangements to provide appropriate long term security for the offset areas to the satisfaction of the Secretary.*

### Commonwealth

Approval for the Cadia East Project (EPBC 2006/3196) was granted by a delegate of the Commonwealth Minister for the Environment in February 2010 under the *Environment Protection and Biodiversity Conservation Act, 1999* (EPBC Act).

Relevant conditions in EPBC 2006/3196 that pertain to the CVO biodiversity offset strategy are repeated below.

1. *The person taking the action must prepare a plan to offset the loss of 23 ha of the White Box-Yellow Box-Blakely's Red Gum grassy woodland and derived native grassland ecological community.*

*The plan must include:*

- *The desired outcomes of implementing the plan;*
- *The short (12 months from the date of the approval), medium (five years from the date of the approval) and long term measures that will be employed to implement the plan;*
- *Details of how the person taking the action will provide for the long term security of the offset areas and details of the timing of when this will occur;*
- *Detailed performance and completion criteria for the implementation of the plan, including details of methods to rehabilitate areas of the ecological community, and methods to control weeds, feral animals, grazing, access and bushfires;*

- A detailed description of how the performance of the implementation of the plan would be monitored over time to achieve the performance and completion criteria;
- A description of the potential risks to successful management and rehabilitation in the offset area, and a description of the contingency measures that would be implemented to mitigate these risks; and
- Details of who is responsible for monitoring, reviewing and implementing the plan.

*The plan must be submitted to the Minister within 18 months of the date of this approval and prior to any subsidence impacts on the White Box-Yellow Box-Blakely's Red Gum grassy woodland and derived native grassland ecological community. The plan must be approved by the Minister and the approved plan must be implemented.*

### **1.5 CONSULTATION FOR THE MODIFICATION**

CHPL consulted with the NSW Department of Planning and Environment (DP&E) and the Commonwealth Department of the Environment (DotE) with regard to the proposed Modification in February 2015.

### **1.6 DOCUMENT STRUCTURE**

The remainder of this Environmental Assessment (EA) is structured as follows:

- |           |  |
|-----------|--|
| Section 1 | Provides an introduction to the Modification and the purpose of this EA, describes the structure of this EA and provides a summary of the consultation undertaken. |
| Section 2 | Describes the approved CVO operations, the existing biodiversity offset strategy and the proposed Modification.  |
| Section 3 | Provides an environmental impact assessment of the proposed Modification.  |
| Section 4 | Provides a conclusion to this EA.  |
| Section 5 | Lists documents and reports referenced in this EA.   |

This EA is supported by the following specialist assessments:

- |            |  |
|------------|--|
| Appendix A | Flora Survey and Habitat Assessment (FloraSearch Pty Ltd). |
|------------|--|



## 2 OVERVIEW OF CADIA VALLEY OPERATIONS

### 2.1 BACKGROUND

The CVO have provided significant economic stimulus and employment generation to the region since Cadia Hill was approved in 1996. Mining at the Cadia Hill open pit commenced in 1998 after a two year construction phase, and was placed in care and maintenance in 2012.

Ore production from the Ridgeway underground mine commenced in 2002. A significant extension to the mine, called Ridgeway Deeps, is currently being mined. With the Ridgeway Deeps extension, Ridgeway is currently scheduled to cease operations within the next 1 to 2 years. Ridgeway Deeps uses block caving underground mining methods.

The CVO includes significant surface infrastructure developed since 1996, including ore processing, water management and staff facilities. Product concentrate is pumped to the Blayney Dewatering Facility and CVO Dewatering Facility (under construction) as a slurry, where it is dewatered and transported via rail.

The Cadia East Project involves the underground mining of a significant orebody adjacent to Cadia Hill. Cadia East was approved in 2010 and is described below.

### 2.2 CADIA EAST PROJECT

The major components of the Cadia East Project include:

- construction and operation of a molybdenum recovery plant with a capacity of up to 460,000 tonnes per annum (tpa) and trucking of molybdenum products off-site;
  - placement of waste rock produced by the Project in the existing South Waste Rock Dump;
  - raising of the existing Northern Tailings Storage Facility (NTSF) and Southern Tailings Storage Facility (STSF) embankments to accommodate approximately 450 Mt of Cadia East tailings;
  - augmentation and upgrade of the existing Cadia Valley Operations water management/supply system including development of additional pipeline/pumping systems and raising of the Rodds Creek Water Holding Dam;
  - obtaining additional mining leases to facilitate the Project extensions of the STSF, NTSF, subsidence zone and Rodds Creek Water Holding Dam;
  - re-alignment of a 1.1 km section of Cadia Road;
  - construction of a new dewatering facility to the east of Blayney (known as the CVO Dewatering Facility);
  - maintaining the existing Blayney Dewatering Facility to provide standby additional processing capacity during the peak production period from Year 3 to Year 7 and the decommissioning of this facility if it is deemed redundant after this time;
  - installation of a new concentrate pipeline and return water pipeline between the Cadia Valley Operations and the CVO Dewatering Facility;
  - increased rail transportation of dewatered mineral concentrate from Blayney to the eastern seaboard;
  - augmentation, relocation and upgrade of supplementary surface facilities including workshops, administration and site access roads; and
  - other associated modifications to existing infrastructure, plant, equipment and activities to allow mining of the Cadia East deposit and integration with the approved Cadia Valley Operations.
- underground mining of approximately 450 million tonnes (Mt) of ore from the Cadia East deposit using the panel caving mining method;
  - development of underground crushing, handling and conveyor systems to transfer ore and waste rock to the surface;
  - development of supporting infrastructure for the underground mine including multiple ventilation shafts, and personnel and equipment access systems;
  - upgrade of the existing Cadia Valley Operations ore processing facilities to accommodate the harder ore from Cadia East and to enable the total Cadia Valley Operations ore processing rate to increase from 24 Mtpa to approximately 27 Mtpa;



### 2.3 CVO BIODIVERSITY OFFSET STRATEGY

The Cadia East Project EA (CHPL, 2009) and PA 06\_0295 describe the CVO biodiversity offset strategy. The strategy integrates rehabilitation activities with regional conservation initiatives, and was consistent with the NSW Department of Planning (now DP&E) Director-General's environmental assessment requirements (DGR's) and the NSW Department of Environment, Climate Change and Water (DECCW), DoP and the Commonwealth Department of Environment, Water, Heritage and the Arts (now DoE) biodiversity offset policies that were in place at the time.

The CVO biodiversity offset strategy, along with continued use of the on-site flora and fauna impact management measures and rehabilitation, was designed to mitigate the potential impacts associated with the clearing of approximately 238 ha of native vegetation. This vegetation included approximately 23.5 ha of NSW-listed Box-Gum Woodland Endangered Ecological Community (EEC), of which approximately 23 ha was the Commonwealth-listed Box-Gum Grassy Woodlands and Derived Native Grasslands Critically Endangered Ecological Community (CEEC).

The majority of the biodiversity offset area is located on Black Rock Range, which is situated approximately 11 km to the west of the CVO (Figure 3). The offset area contains approximately 653 ha of remnant vegetation and approximately 173 ha of predominantly cleared agricultural land, with the later to be fenced and revegetated. Similar vegetation communities occur in the Cadia East Project area and within the offset area, particularly White Box Woodland (community 1a), Red Stringybark/Long-leaved Box Open Forest (community 3a), and Red Box/Red Stringybark Open Forest (community 3b).

The Black Rock Range offset area contains significant areas of the NSW-listed Box-Gum Woodland EEC (i.e. approximately 210 ha) and the Commonwealth-listed Box-Gum Grassy Woodlands and Derived Native Grasslands Critically Endangered Ecological Community CEEC (i.e. approximately 154 ha). Figure 6 shows the 2009 mapping of vegetation communities at Black Rock Range.

The Black Rock Range offset area also adjoins approximately 1,200 metres (m) of the local creek to the east of the ridge (i.e. Panuara Rivulet). As a result, the proposed offset would directly link approximately one third of the length of Black Rock Range with Panuara Rivulet via the intervening mid and lower slopes and riparian zone. A large proportion of this area has been mapped as EEC and/or CEEC.

The Black Rock Range offset area would be linked to the existing CVO via a network of vegetation corridors, several of which are already in place. CHPL's vegetation corridor programme aims to conserve remnant vegetation, link significant areas of remnant vegetation, provide habitat for native fauna, promote the movement of genetic material between flora and fauna populations and increase the sustainability and biodiversity of CVO farms and environs (Figure 3).

Also included in the CVO biodiversity offset strategy is a 112 ha offset area located at the junction of the Belubula River and Flyers Cree (Figure 3). The Belubula River/Flyers Cree offset area includes approximately 62 ha of existing native vegetation, of which approximately 23 ha has been determined by FloraSearch Pty Ltd as meeting the criteria for the NSW-listed Box-Gum Woodland EEC and the Commonwealth-listed Box-Gum Grassy Woodlands and Derived Native Grasslands CEEC. Figure 6 shows the 2011 mapping of vegetation communities at Black Rock Range.

As described in the EA, the specialist consultants who undertook the flora and fauna impact assessments (Dr Colin Bower and Dr David Goldney respectively), concluded that it is likely that the proposed offset biodiversity offset strategy would constitute a suitable offset against flora impacts associated with the Cadia East Project, and the proposed fauna impact mitigation and offset measures are likely to maintain regional fauna biodiversity in the short-term and enhance it in the long-term.

### 3 MODIFICATION DESCRIPTION

The biodiversity offset area Modification would include the following components:

- An approximately 14.2 ha area of land would be removed from the Belubula River/Flyers Creek portion of the CVO biodiversity offset area.
- An approximately 16.5 ha area of land would be removed from the Black Rock Range portion of the CVO biodiversity offset area.
- An approximately 60.7 ha<sup>2</sup> replacement area within the CHPL-owned Stratton Vale property would be added to the CVO biodiversity offset.

These elements are further described in the sub-sections below.

#### 3.1 BELUBULA RIVER/FLYERS CREEK AREA

Condition 38 of PA 06\_0295 requires the Belubula River/Flyers Creek component of the CVO biodiversity offset to be a minimum of 112 ha and to be located as shown conceptually in the Cadia East EA and Appendix 5 of PA 06\_0295.

The shape of the Belubula River/Flyers Creek component of the CVO biodiversity offset depicted in Appendix 5 of PA 06\_0295 was based on the existing perimeter fences of the Oaky Creek property.

As a result of CHPL's recent review of cadastral information, it has become apparent that these fence lines do not accurately follow the official cadastral boundary of the Oaky Creek property (i.e. Lot 1422, DP1168271 – refer to Figure 4). As indicated on the figure, there are several areas where the current boundary incorporates Crown Land associated with the Belubula River and Flyers Creek, as well as some parcels of land that are owned by other landholders on the southern side of the River and Creek.

Rather than attempt to purchase the land in question from the NSW Department of Lands and the adjoining landholders, CHPL wishes to adjust the boundary of the Belubula River/Flyers Creek component of the CVO biodiversity offset to be generally consistent with the southern boundary of Lot 1422, DP1168271 (i.e. the official southern boundary of the Oaky Creek property).

The adjustment would mean that approximately 14.2 ha would no longer form part of the Belubula River/ Flyers Creek offset area. The area to be excised is shown on Figure 4.

It should be noted that the above change would be an administrative change in order to facilitate the securing of the area in perpetuity, without the need to subdivide adjoining non CHPL-owned land and/or acquire Crown land. From a practical and on-the-ground perspective it is anticipated that the existing Oaky Creek perimeter fence lines would remain in their current position. This is because it is not considered practicable for a fence to follow the Lot 1422, DP1168271 boundary as this boundary criss-crosses the current Belubula River and Flyers Creek channels.

#### 3.2 BLACK ROCK RANGE AREA

Condition 38 of PA 06\_0295 requires the Black Rock Range component of the CVO biodiversity offset to be a minimum of 826 ha and to be located as shown conceptually in the Cadia East EA and Appendix 5 of PA 06\_0295.

Currently CHPL is in the process of acquiring the portion of Black Rock Range that occurs within the 'Ulah' property (i.e. as depicted in Appendix 5 of PA 06\_0295). However, during this process it has become apparent that the southern-most portion of the area to be acquired has been occupied and farmed by the neighbouring landholder for many decades (i.e. technically it is part of the Ulah property but it has not been fenced or managed as such). Rather than reclaim the land from this neighbour and include it in the offset, CHPL wishes to remove approximately 13.9 ha area from the Black Rock Range component of the CVO offset.

In addition to the above, a Trig Station is located on the ridge that runs north-south along the Black Rock Range offset area. The Trig Station sits within a small (2.6 ha) parcel of Crown Land (i.e. Lot 104 DP724547). CHPL does not intend to include this parcel of land in the Black Rock Range component of the CVO offset, as the NSW Department of Crown Lands does not wish to relinquish it.

Figure 5 shows the locations of the two areas to be excised from the Black Rock Range component of the CVO biodiversity offset area.

<sup>2</sup> Note that the exact size of the replacement area would be subject to final survey.

There are also some other parcels of Crown Land within the Black Rock Range portion of the CVO biodiversity offset area (Figure 5). These occupy a total area of approximately 20 ha and were most likely included in the original surveying of Black Rock Range and were intended to provide access between lots, or are associated with creek lines.

These parcels of Crown Land remain undeveloped and have not been formed into publically accessible roads between properties (i.e. they are now just 'paper roads') and are not fenced or managed differently to the remainder of the Black Rock Range offset area.

CHPL intends to acquire these parcels of land from the NSW Department of Lands so that they can be incorporated into the Black Rock Range offset and conserved in perpetuity.

### **3.3 STRATTON VALE AREA**

The area that would be removed from the offset as a result of the adjustments described in Sections 3.1 and 3.2 would be replaced with a single parcel of land located on a CHPL-owned property ('Stratton Vale').

The Stratton Vale offset area is situated 1 to 2 km to the west of the CVO (Figure 6). The additional area to be added to the CVO biodiversity offset is approximately 60.7 ha in size and is predominantly covered with remnant native woodland vegetation. Swallow Creek runs in a north-south direction through the area over a distance of approximately 1,000 m.

#### 4 ENVIRONMENTAL REVIEW

FloraSearch Pty Ltd was engaged to undertake a flora survey of the Belubula River/Flyers Creek area as well as the southern portion of the Black Rock Range biodiversity offset. FloraSearch also surveyed the proposed replacement area at Stratton Vale. A copy of the FloraSearch (2015) report is contained in Appendix A. The following sub-sections discuss the results of the survey and assessment.

##### 4.1 VEGETATION CHARACTERISTICS OF THE BELUBULA RIVER/FLYERS CREEK AREA

The Belubula River/Flyers Creek area to be excised consists of a narrow strip of land along a section of the Belubula River and the lower reaches of Flyers Creek (Figure 7). The area is almost entirely within the riparian zone, but also includes a small amount of the adjoining lower slopes along Flyers Creek in places.

FloraSearch surveyed the Belubula River/Flyers Creek area to be excised in October 2014. Figure 7 shows the mapped vegetation communities and sample locations, and Appendix A provides details of the survey methodology. Vegetation sampling was stratified according to the standard Plant Community Types (PCT) recognised by OEH (2014a).

Fourteen native plant species and 55 introduced species were recorded during the survey, and two natural vegetation communities and one anthropogenic community were identified and mapped (Table 4-1 and Figure 7).

River Oak Forest was by far the dominant community (i.e. 11.7 ha) since much of the area is within the riparian zones of the Belubula River and Flyers Creek (Figure 7). A very small (i.e. 0.3 ha) remnant patch of Yellow Box Woodland (i.e. Community 2) was also present. However, most of the non-riparian lower slope areas were covered in exotic grasses and herbs (i.e. 2.3 ha).

BioMetric data on vegetation condition in the Belubula River/Flyers Creek area indicated that the River Oak Forest and the small remnant of Yellow Box Woodland were both in poor condition with their ground cover in 'low' condition owing to a high dominance of exotic species; 68% exotic cover for River Oak Forest and 100% exotic cover for the area of Yellow Box Woodland (Appendix A).

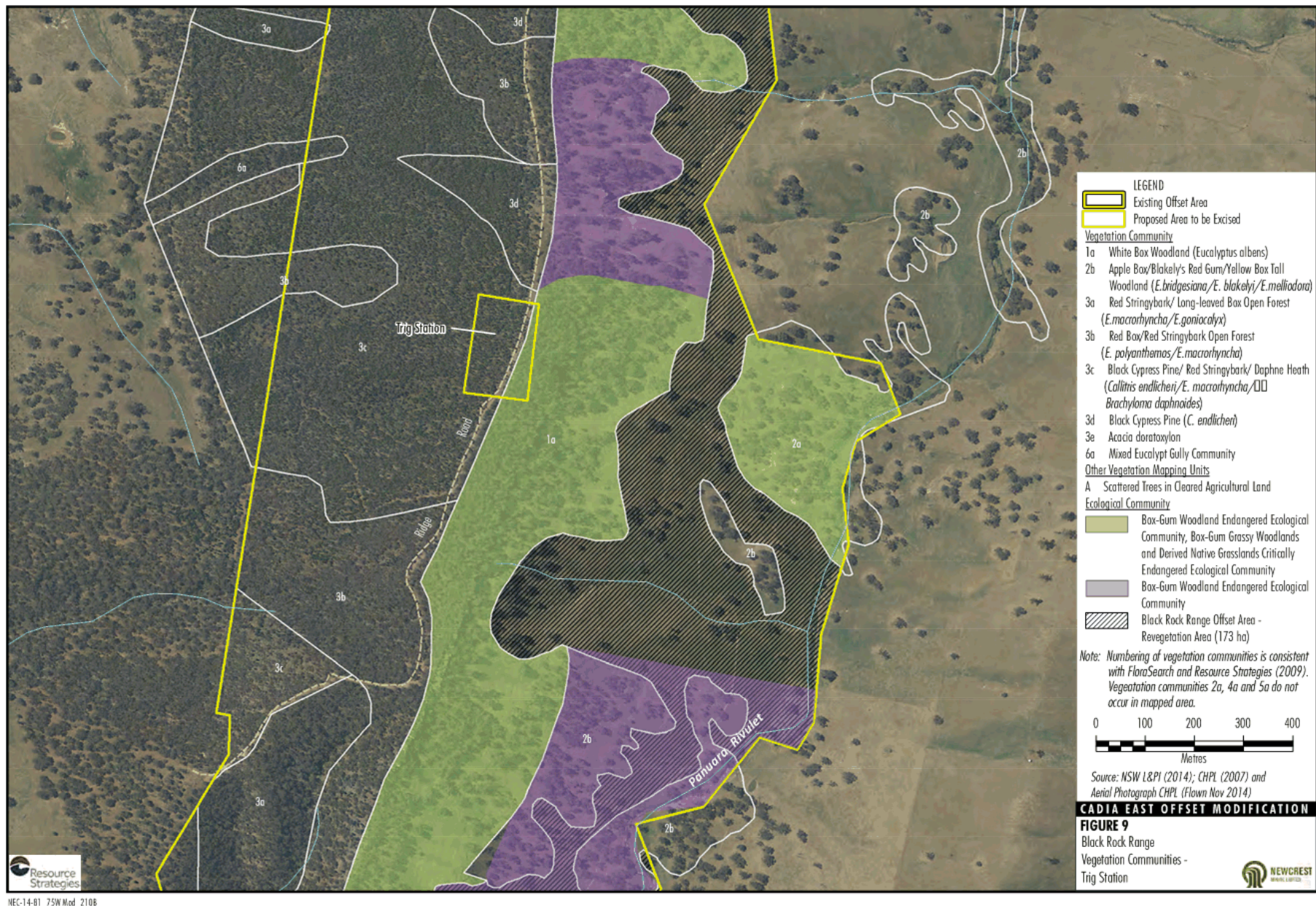
No threatened flora species were identified in the existing Belubula River/Flyers Creek offset area (Appendix A).

FloraSearch (2015) used the relevant NSW and Commonwealth guidelines to determine whether any of the recorded vegetation communities conformed to the definitions of the NSW-listed Box-Gum Woodland EEC and/or the Commonwealth-listed Box-Gum Grassy Woodlands and Derived Native Grasslands Critically Endangered Ecological Community CEEC (Appendix A). The analysis indicated that the small 0.3 ha area of Yellow Box Woodland (i.e. Community 2) conformed to the NSW-listed Box-Gum Woodland EEC, but did not conform to the Commonwealth CEEC (due to the very poor condition of the ground cover).

**Table 4-1**  
**Vegetation Communities Recorded in the Belubula River/Flyers Creek Excise Area**

Community No.	PCT Code	Area (ha)	Short Name	Plant Community Type (OEH, 2014b)	Dominant Species on Study Areas
1	85	11.7	River Oak Forest	<i>River Oak forest and woodland wetland of the NSW South Western Slopes and South Eastern Highlands Bioregions</i>	River Oak ( <i>Casuarina cunninghamiana</i> ), River Red Gum ( <i>Eucalyptus camaldulensis</i> )
2	277	0.3	Yellow Box Woodland (Box-Gum Woodland EEC)	<i>Blakely's Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion</i>	Yellow Box ( <i>Eucalyptus melliodora</i> ), Apple Box ( <i>Eucalyptus bridgesiana</i> )
6	N/A	2.3	Exotic Grassland	-	Great Brome ( <i>Bromus diandrus</i> ), Soft Brome ( <i>Bromus hordeaceus</i> ), <i>Vulpia muralis</i> , Wimmera Ryegrass ( <i>Lolium rigidum</i> )











BioMetric vegetation condition data collected in the Stratton Vale replacement area indicated that the vegetation was in relatively poor condition (Appendix A). The groundcover was in low condition with greater than 50% cover by exotic species in both the Yellow Box Woodland (62%) and White Box Woodland (80%).

No threatened flora species were identified in the Stratton Vale replacement area.

FloraSearch (2015) used the relevant NSW and Commonwealth guidelines to determine whether any of the recorded vegetation communities conformed to the definitions of the NSW-listed Box-Gum Woodland EEC and/or the Commonwealth-listed Box-Gum Grassy Woodlands and Derived Native Grasslands Critically Endangered Ecological Community CEEC. The analysis indicated that all Box-Gum Woodland remnants (i.e. Community 2 [15.6 ha] and Community 3 [29.8 ha]) conformed to the NSW-listed Box-Gum Woodland EEC, but did not conform to the Commonwealth CEEC.

The fauna habitat values of the Stratton Vale replacement area were evaluated by FloraSearch (2015) and were considered to be relatively high for the following reasons:

- Many of the remnant trees at Stratton Vale are very large and clearly pre-date European settlement. One tree hosts the nest of a Little Eagle (*Hieraaetus morphnoides*), which is listed as Vulnerable under the TSC Act. In addition, many of the White Box trees have hollows suitable for parrots and a nesting population of the Vulnerable Superb Parrot (*Polytelis swainsonii*) is present on and around the investigation area.
- While the groundcover is generally dominated by exotic species, there is a good representation of native perennial grasses, potentially providing habitat for granivorous birds favouring native grass seed, such as finches and the Superb Parrot.
- Swallow Creek provides water for wildlife and habitat for aquatic fauna.

Current habitat limitations identified by FloraSearch (2015) included a general lack of tall and low shrubs that would provide cover and nesting habitat for many birds including finches, babbler, thornbills and others. There are also limited opportunities for most reptiles owing to very dense exotic grass cover over much of the area and relatively few logs on the ground.

#### 4.4 ENVIRONMENTAL ASSESSMENT

The proposed Modification would result in the substitution of 30.7 ha of land within the existing CVO biodiversity offset (i.e. 14.2 ha at the Belubula River/Flyers Creek and 16.5 ha at Black Rock Range), with approximately 60.7 ha within the Stratton Vale replacement area. CHPL believes that this would provide a net environmental benefit, solve the current cadastral boundary issue, and allow the CVO biodiversity offset to be secured in perpetuity as required by PA 06\_0295 and EPBC 2006/3196.

The existing vegetation condition and habitat value of the areas to be excised is generally low, whereas the habitat value of the replacement area is higher.

More than a third of the areas to be excised is exotic grassland (i.e. 13.3 ha), which has been extensively cleared. Of the remaining areas, approximately 2.7 ha of White Box Woodland (i.e. Community 3) at Black Rock Range conformed to the NSW-listed Box-Gum Woodland EEC. The excision of this area would be compensated for by the inclusion of 45.4 ha of remnant native vegetation at Stratton Vale that conforms to the NSW-listed Box-Gum Woodland EEC.

Approximately 1 ha of vegetation that is mapped as conforming to the Commonwealth Box-Gum Woodland CEEC is located in the Trig Station area at Black Rock Range. The Stratton Vale replacement area does not contain any vegetation that meets the Commonwealth CEEC criteria. However, because the Trig Station area at Black Rock Range is located on the steeply sloping eastern face of the ridgeline (i.e. is inaccessible to vehicles) and would be entirely encompassed by the Black Rock Range offset, it would remain protected (i.e. livestock would be excluded and other management measures for weeds and fire would be applied to this area). The revised LBMP would describe how the Trig Station area would be managed as part of the Black Rock Range offset area.

The proposed Stratton Vale replacement area contains approximately 1,000 m of direct frontage to Swallow Creek. This would effectively replace the sections of Panuara Rivulet, Belubula River and Flyers Creek that would be formally removed from the CVO offset. However, it should be noted that from a practical and on-the-ground perspective the Belubula/Flyers Creek offset area would still include the majority of the Crown land that directly fronts the River/Creek because the existing fence lines for the Oaky Creek property are likely to remain in place.

## 5 CONCLUSION

The proposed Modification would address the recently identified issue with cadastral boundaries within the CVO biodiversity offset area as currently depicted in the Cadia East Project EA (CHPL, 2009) and PA 06\_0295. If approved it would allow CHPL to secure the biodiversity in perpetuity as required by PA 06\_0295 and EPBC 2006/3196.

The proposal would result in the excision of 30.7 ha of land within the existing CVO biodiversity offset and replacement of it with approximately 60.7 ha within the CHPL-owned Stratton Vale. The quantity and quality of vegetation within the Stratton Vale replacement area is such that there would be a net environmental gain as a result of the proposed Modification.

## 6 REFERENCES

FloraSearch and Resource Strategies (2009) *Cadia East Project Flora Assessment*. Report prepared for Cadia Holdings Pty Limited.

Office of Environment and Heritage (2014) *VIS Classification 2.1*.  
Website: <http://www.environment.nsw.gov.au/NSWVCA20PRapp/search/pctsearch.aspx>  
Accessed: November 2014.

APPENDIX A  
FLORA SURVEY AND HABITAT ASSESSMENT

FLORA AND FAUNA HABITAT SURVEY OF PROPOSED CHANGES TO THE CADIA VALLEY  
OPERATIONS BIODIVERSITY OFFSET AREAS

PREPARED BY

FLORASEARCH

APRIL 2015

Project No. NEC-14-81

Document No. 00672361

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## 1 INTRODUCTION

Cadia Holdings Pty. Limited (CHPL) has recently discovered that two small parcels of land in the original Cadia Valley Operations (CVO) biodiversity offset are unable to be secured in perpetuity due to several cadastral issues. These areas are located in the southern part of the Black Rock Range offset area and in the vicinity of the Belubula River and Flyers Creek confluence. The net effect is that CHPL requires 28.1 hectares (ha) of alternative suitable native vegetation/fauna habitat in order to replace the area unable to be secured.

FloraSearch has been commissioned by CHPL to undertake flora surveys and habitat assessments of the two parcels of land to be excised, and to survey a potential replacement area located in the CHPL-owned Stratton Vale property. The surveys and habitat assessments are to be included in an Environmental Assessment, which is being prepared to support a Modification application to the CVO Project Approval under Section 75W of the *Environmental Planning and Assessment Act, 1979* (EP&A Act).

In this report the attributes of the two land parcels to be excised are determined through the application of appropriate survey methods and compared with the same data from the potential replacement area at Stratton Vale. The three areas are herein referred to as the study areas.

The objectives of the surveys are to:

- sample the natural vegetation on the study areas using standard flora survey techniques;
- determine the Plant Community Types (PCT) present within each study area;
- compile a flora species list for each study area;
- conduct targeted searches for potentially occurring threatened flora species, populations and communities; and
- determine the distribution of *White Box Yellow Box Blakely's Red Gum Woodland Endangered Ecological Community* listed under the *NSW Threatened Species Conservation Act 1995* (TSC Act) and/or *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland Critically Endangered Ecological Community* (CEEC) listed under the *Commonwealth Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) (commonly known as Box-Gum Woodlands); and
- assess the habitat quality for fauna within each study area.

## 2 REGIONAL SETTING

The three study areas are located in undulating to steep hilly country to the west and south west of the CVO mining tenements (Figure 1). The study areas vary from 28 kilometres (km) to 34 km south west of Orange, the nearest major population centre. The nearest named locality is Panuara, a small hamlet only 1.4 km north of the Stratton Vale investigation area. Apart from the CVO, the other major land uses in the surrounding district are softwood plantation forestry (Canobolas State Forest), livestock grazing and viticulture (Angullong Vineyard).

The main watercourses in the study areas are the Belubula River and its tributaries Flyers Creek, Cadiangullong Creek, Swallow Creek and Panuara Rivulet (Figure 1). The proposed Stratton Vale replacement area includes a section of Swallow Creek, and the existing offset area at the south end of the Black Rock Range borders the Panuara Rivulet.

The study areas lie within the Central Tablelands botanical region and close to the boundary of the Central Western Slopes botanical region (Anderson, 1961). They are also within the South Eastern Highlands Biogeographical Region and close to the boundary with the South Western Slopes Biogeographical Region (Thackway and Cresswell, 1995). Given the study areas are situated close to the boundaries of major botanical and biogeographical regions, it is likely that the study area flora would contain a blend of species characteristic of both sets of regions.

## 3 GENERAL DESCRIPTION OF THE STUDY AREAS

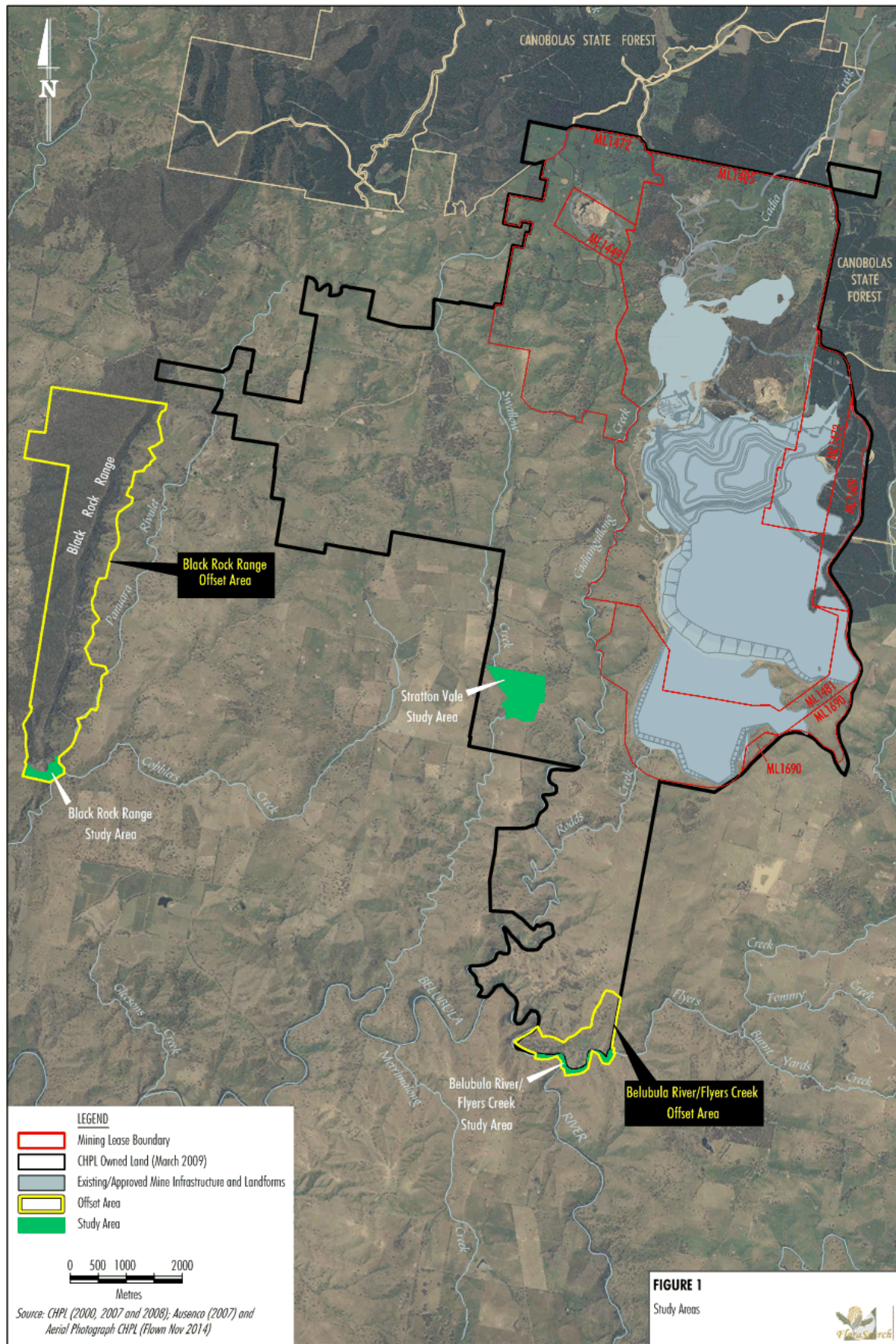
### 3.1 EXISTING OFFSET AREAS

#### *Belubula River/Flyers Creek*

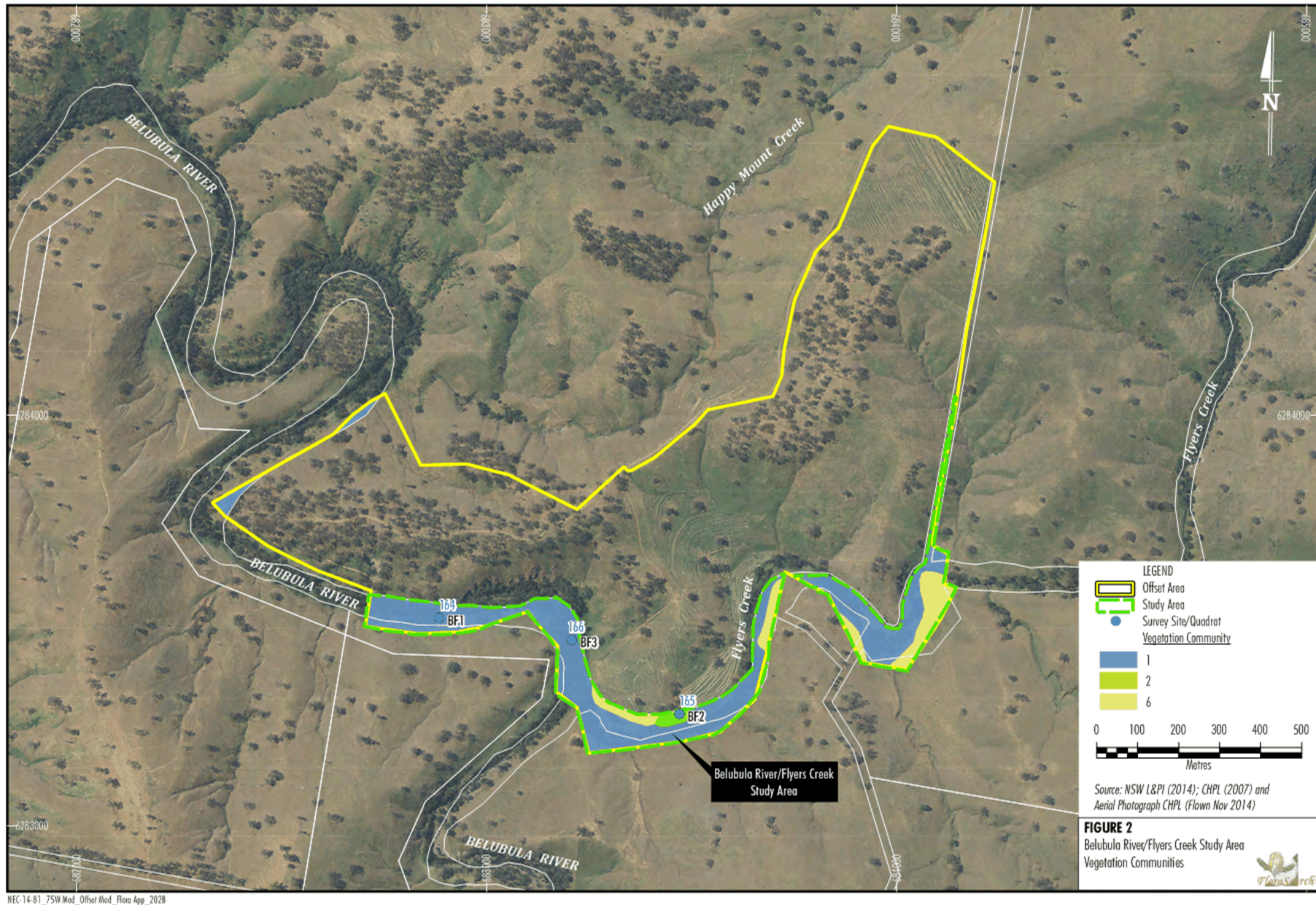
The Belubula River/Flyers Creek study area comprises a narrow strip along a section of the Belubula River and the lower reaches of Flyers Creek (Figure 2). The study area is almost entirely within the riparian zone, but also includes a small amount of the adjoining lower slopes along Flyers Creek in places.

#### *South End of Black Rock Range*

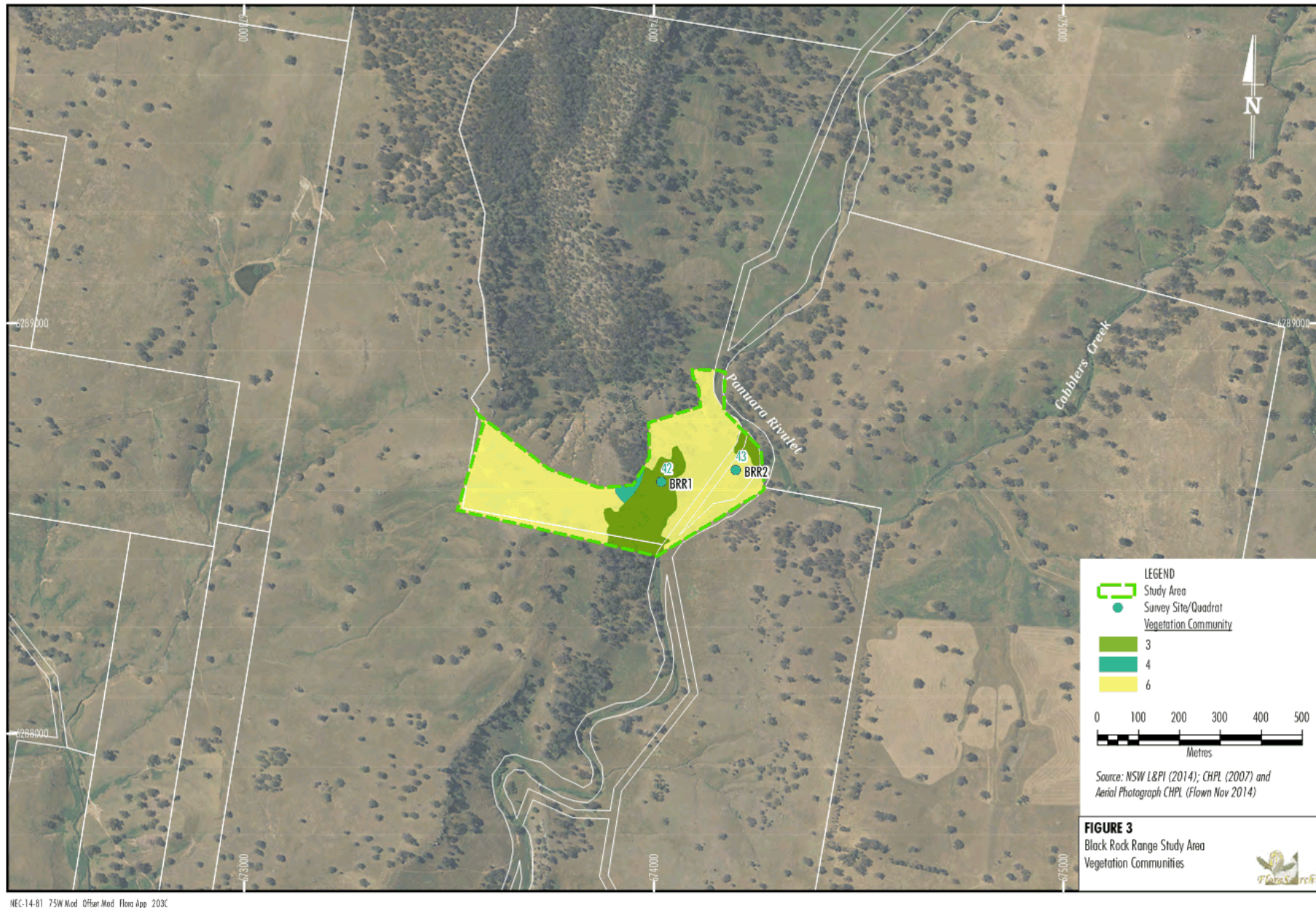
This area is at the southernmost extremity of Black Rock Range where it meets the Panuara Rivulet (Figure 3). It comprises steep east and south facing slopes descending from a dome-shaped hill (570 metres Australian Height Datum [m AHD]) and ridge extending to its west (600 m AHD), as well as flats along Panuara Rivulet. The lowest altitude in the study area is approximately 505 m beside the Panuara Rivulet. The soils are predominantly stony clays with small areas of alluvial/colluvial soils on the river flats.











#### 4.2.1 Quadrat Sampling

Flora on the Study areas was sampled with 20 × 20 m (0.04 ha) quadrat sites (Table 1, Figures 2-4). Sampling intensity was based on the approximate areas of each vegetation zone in each study area (DEC, 2004). Within each plot the dominant species in each vegetation stratum were recorded, with an estimate of the percentage of the ground surface covered by their canopies. A list of all vascular plant species present within the quadrat was also made with each being assigned a cover abundance rating using a modified Braun-Blanquet scale (Table 2). Details recorded for each site included its Global Positioning System (GPS) position, landform, physiography, topsoil characteristics, disturbance, vegetation structural formation and general comments.

**Table 1**  
**Number of Quadrats conducted within each Vegetation Community on each Study Area.**

Community No.	PCT		Current Offset Areas		Replacement Area
	No.	Name	Belubula River	Black Rock Range	Stratton Vale
1	85	<i>River Oak forest and woodland wetland of the NSW South Western Slopes and South Eastern Highlands Bioregions</i>	2	N/A	N/A
2	277	<i>Blakely's Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion</i>	1	0	2
3	266	<i>White Box grassy woodland in the upper slopes sub-region of the NSW South Western Slopes Bioregion</i>	N/A	1	2
4	1095	<i>Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion</i>	N/A	0	N/A
5 <sup>1</sup>	N/A	Derived Grassland	N/A	N/A	0 <sup>2</sup>
6 <sup>1</sup>	N/A	Exotic Grassland	0	1	0

<sup>1</sup> No equivalent PCT has been described for this vegetation type.

<sup>2</sup> Derived grassland occupied only very small areas and was not sampled.

N/A = Not applicable

**Table 2**  
**Modified Braun-Blanquet Cover Abundance Rating Scale**

Rating	Percent Ground Cover	Rating	Percent Ground Cover
1	<1, rare	5	6 to 25
2	<5, uncommon	6	26 to 50
3	<5, common	7	51 to 75
4	<5, abundant	8	76 to 100



#### 4.2.2 Random Meanders

Random meanders were undertaken for 30 minutes from each quadrat site. Random meanders were aimed at detecting the presence of any threatened flora species that may occur.

#### 4.2.3 Habitat Quality

The condition of the native vegetation on the study areas and their value as fauna habitat was measured using the OEH BioMetric terrestrial biodiversity assessment methodology (Gibbons *et al.* 2005). BioMetric measurements form part of the input to the NSW Property Vegetation Plan Developer, which is used to assist decision making for applications to clear native vegetation under the NSW *Native Vegetation Act, 2003*. This methodology allows the value of vegetation to be assessed in a repeatable fashion for comparison with established benchmarks for the vegetation types on the study area (Department of Environment and Climate Change [DECC], 2008a).

The 20 × 20 m flora survey plots were extended to 50 × 20 m for 'Biometric' measurements (Figures 2-4). Ten condition parameters used in BioMetric to assess site value were measured in each plot. The measurement methods were based on Appendix 3 of the BioMetric Operational Manual (Gibbons *et al.*, 2005). The parameters and methodology are:

- Native plant species diversity: - the number of native plant species in the 20 × 20 m subplot.
- Native overstorey cover: – mean percent cover of ground by the foliage of the uppermost vegetation layer; trees or tall shrubs (>1 m) at 10 points along a 50 m transect along the long axis of the plot.
- Native midstorey cover: – mean percent cover of ground by the foliage of the middle vegetation layer; tall shrubs (>1 m), low trees and regeneration at 10 points along a 50 m transect along the long axis of the plot.
- Native groundcover – grasses: - presence or absence of native grasses at 50 points 1m apart on a 50 m transect along the long axis of the plot.
- Native groundcover – shrubs: - mean percent cover of ground by the foliage of low shrubs (>1 m) and regeneration at 10 points along a 50 m transect along the long axis of the plot.
- Native groundcover – other: - Presence or absence of native herbs, sedges, rushes, ferns and other groundcover species at 50 points 1m apart on a 50m transect along the long axis of the plot.
- Exotic plant cover: – Presence or absence of exotic species at 50 points 1m apart on a 50m transect along the long axis of the plot.
- Number of trees with hollows: - All living and dead standing trees with their centres in the 50 × 20 quadrat were examined for hollows capable of harbouring wildlife. Hollows are defined as tree holes > 5 centimetres (cm) diameter, having depth, and > 1 m above the ground.
- Regeneration: - The proportion of overstorey trees species on the 50 × 20 m quadrat that are regenerating.

- Total length of fallen logs: - The length of fallen logs > 10 cm diameter and > 0.5 m long was totalled for the whole 50 × 20 m quadrat.

#### 4.2.4 Flora Species Listing

All observed plant species were recorded, whether identified on formal sample sites or not. Some less common plants were only observed on one occasion whilst moving around the site. Where plants could not be quickly identified in the field, a sample was taken for later examination. Samples were preserved in a plant press and identified using a binocular microscope and flora keys. The principal reference was the Flora of New South Wales (Ed. G. Harden 1990-2002) and it is used as the basis for plant naming in this report along with any updates on the PlantNet web site of the Royal Botanic Gardens and Domain Trust Sydney (PlantNet, 2014).

#### 4.2.5 Vegetation Mapping

The distribution of PCTs on the study areas was determined by visiting all parts of each area by 4WD vehicle and on foot. The vegetation was examined with binoculars where access was difficult or dangerous, as on very steep slopes. Vegetation distribution was mapped in the field onto high resolution aerial photographs.

#### 4.2.6 Determination of Box - Gum Woodland Status as EEC (TSC Act) or CEEC (EPBC Act)

The *White Box Yellow Box Blakely's Red Gum Woodland* vegetation community is listed as endangered under the TSC Act and the analogous *White Box-Yellow Box-Blakely's Red Gum grassy woodlands and derived native grasslands critically endangered ecological community* is listed under the EPBC Act. These woodlands are commonly referred to as Box – Gum Woodlands.

The Box-Gum Woodland EEC/CEEC is characterised by one or more of the following species in varying proportions and combinations; White Box, Yellow Box or Blakely's Red Gum (NPWS undated, DEH 2006). Native grass and herbaceous species generally dominate the ground layer, and shrubs are usually sparse or absent, though they may be locally common (ibid.). A predominantly grassy, rather than shrubby understorey is a defining characteristic of the community (ibid.).

This community is widespread on the western slopes and tablelands of New South Wales and occurs commonly in the region around Cadia. Because it occurs on relatively deep high fertility soils, it has been extensively cleared historically for cropping and grazing over its entire range. Very few remnants remain in close to pristine condition. Most examples of Box-Gum Woodland are small patches of trees or isolated single trees on farmland. In nearly all cases the former understorey shrub species have completely disappeared and most of the native herbs and grasses have also been eliminated by farming and grazing. Remnants in fair to good condition occur mainly in cemetery reserves, crown reserves and in some travelling stock routes and reserves. The key characteristic for defining remnant quality of this community is the condition of the understorey in terms of the relative absence of weeds and the presence of close to the full suite of original herbs and grasses. Some native components of this community are more sensitive to disturbance than others and the presence of these indicates the remnant is in good condition.

Guidelines for determining whether particular Box-Gum Woodland remnants conform to the definitions of the EEC and/or CEEC have identification keys or flowcharts based on community criteria (NPWS undated, DEH 2006) (Figures 5 and 6). Remnants must meet all relevant key or flowchart criteria to be recognised as part of the EEC or CEEC. The NSW and Commonwealth jurisdictions have taken fundamentally different approaches to conservation of Box-Gum Woodlands. The NSW community recognition criteria and key are very broad, such that all predominantly grassy Box-Gum Woodland remnants, including those that are highly degraded, are included in the EEC unless they occur in urban backyards or cropping paddocks (NPWS undated). Accordingly, all remnants on the Study areas are considered to be part of the NSW EEC in this report.

By contrast, the Commonwealth listing of Critically Endangered seeks to focus protection on the highest quality remnants, that is, those that have retained a significant proportion of the original floristic diversity of the community. For this study, the most important Commonwealth criterion is at the second line in the flow diagram (Figure 6) which asks whether the understorey is predominantly native. The explanatory notes below the flow diagram (Figure 6) indicate the question refers to perennial not annual species. It also recommends that surveys be conducted in late autumn when annual growth of exotic species is absent. Accordingly for surveys conducted at other times of the year great care is needed to assess perennial not annual species when determining whether a patch meets Commonwealth CEEC criteria. The most important BioMetric measures that focus on this issue are the proportions of *native groundcover – grasses* and *native groundcover – other*, both of which measure mainly perennial species.

### **Identifying Box-Gum Woodland**

Following is a key for use in determining whether Box-Gum Woodland exists on a site. Where doubt exists over an appropriate category (e.g. whether the site is mainly grassy or is shrubby), use a precautionary approach that assumes that the community is present.

At each stage there are two alternatives. Choose which is most like the site under consideration, and proceed to the alternative numbered in the right margin.

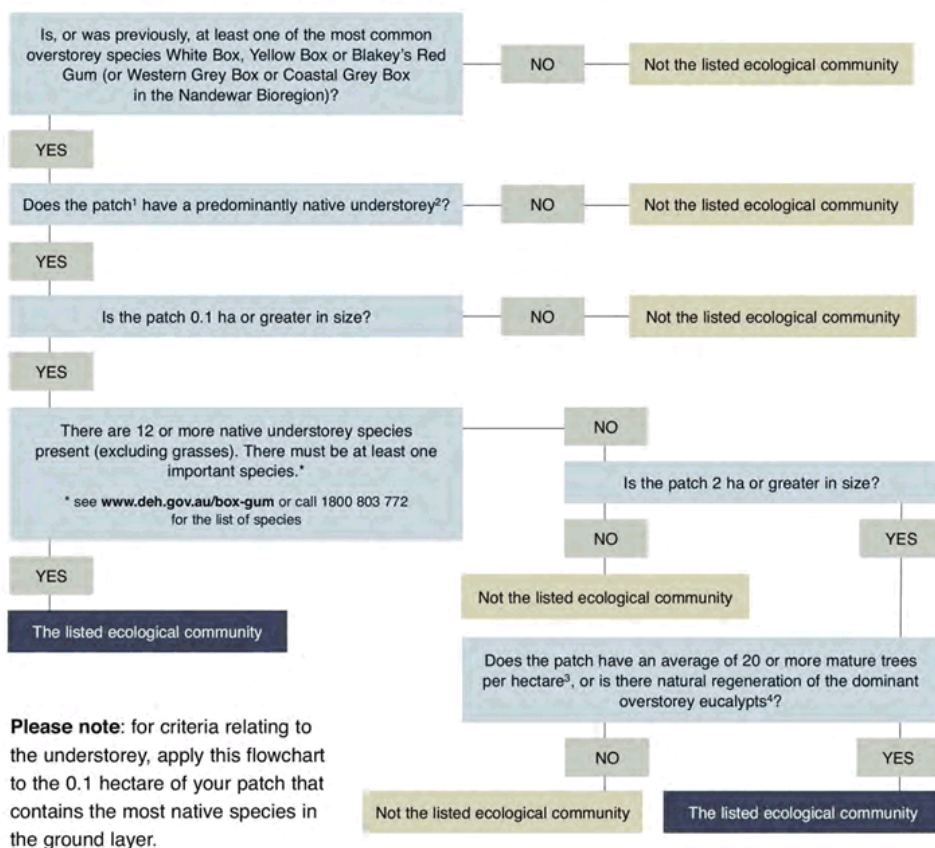
- 1 The site is in the NSW North Coast, New England Tableland, Nandewar, Brigalow Belt South, Sydney Basin, South Eastern Highlands or NSW South Western Slopes Bioregions: **2**
- 1\* The site is outside the above bioregions:  
**the site is not Box-Gum Woodland**
- 2 There are no native species in the understorey, and the site is unlikely to respond to assisted natural regeneration (see section on Degraded Sites, page 3):  
**the site is not Box-Gum Woodland**
- 2\* The understorey is otherwise: **3**
- 3 The site has trees: **4**
- 3\* The site is treeless, but is likely to have supported White Box, Yellow Box or Blakely's Red Gum prior to clearing: **5**
- 4 White Box, Yellow Box or Blakely's Red Gum, or a combination of these species, are or were present: **5**
- 4\* White Box, Yellow Box or Blakely's Red Gum have never been present:  
**the site is not Box-Gum Woodland**
- 5 The site is predominantly grassy:  
**the site is Box-Gum Woodland**
- 5\* The understorey of the site is dominated by shrubs excluding pioneer species (see section on The Understorey: page 2):  
**the site is not Box-Gum Woodland**

Figure 5. NSW Box-Gum Woodland identification key (NPWS undated).

[Under this key and the explanatory text in NPWS (undated), all Yellow Box, White Box and Blakely's Red Gum trees in the Bioregions at Point 1 are part of the EEC unless they occur in urban backyards, cropping paddocks or have heavy native shrub cover.]

The flowchart below represents the lowest condition at which patches are included in the listed ecological community. This is not the ideal state of the ecological community. Large patches, those that link remnants in the landscape, those that occur in highly cleared areas, those that contain rare, declining or threatened species, and those that represent the entire range of the ecological community, are important for the long-term future of the ecological community.

#### Determining if your land has an area of the listed ecological community



<sup>1</sup> Patch – a patch is a continuous area containing the ecological community (areas of other ecological communities such as woodlands dominated by other species are not included in a patch). In determining patch size it is important to know what is, and is not, included within any individual patch. The patch is the larger of:

- an area that contains five or more trees in which no tree is greater than 75 m from another tree, or
- the area over which the understorey is predominantly native.

Patches must be assessed at a scale of 0.1 ha (1000m<sup>2</sup>) or greater.

<sup>2</sup> A predominantly native ground layer is one where at least 50 per cent of the perennial vegetation cover in the ground layer is made up of native species. The best time of the year to determine this is late autumn when the annual species have died back and have not yet started to regrow. (At other times of the year, you can determine whether something is perennial or not if it is difficult to pull out of the soil. Annual species pull out very easily.)

<sup>3</sup> Mature trees are trees with a circumference of at least 125 cm at 130 cm above the ground.

<sup>4</sup> Natural regeneration of the dominant overstorey eucalypts when there are mature trees plus regenerating trees of at least 15 cm circumference at 130 cm above the ground.

**Figure 6. Commonwealth flowchart for identification of the Box-Gum Woodland CEEC (DEH 2006). [Importantly, a 'no' answer at any of the first three steps excludes a patch from the EEC, whether or not the patch is greater than 2 ha in size and has a high density of trees or regeneration]**

## 5 RESULTS

### 5.1 EXISTING OFFSET AREAS

#### 5.1.1 Vegetation Communities

The PCTs described below are considered closest in floristic composition and site characteristics to those described in the OEH (2014b) Plant Community Types Database. In some cases there are relatively large differences between the OEH (2014b) community and that observed on the study areas. These discrepancies may arise because past clearing and intensive grazing have changed community composition, for example formerly shrubby areas may now lack shrubs and appear grassy. However, vegetation varies across the landscape and some less prominent variants may not be covered explicitly by OEH (2014b). [Note: PCTs in the following lists are given in italics by their title in OEH (2014b).]

#### *Belubula River/Flyers Creek*

Two natural vegetation communities and one anthropogenic community occurred in the existing Belubula River / Flyers Creek offset area (Table 3).

- River Oak Forest (Community 1);
- Yellow Box Woodland (Community 2); and
- Exotic Grassland (Community 6).

River Oak Forest was by far the dominant community since much of the area is within the riparian zones of the Belubula River and Flyers Creek (Figure 2). A very small remnant patch of Yellow Box Woodland was also present (Figure 2). However, most of the non-riparian lower slope areas were covered in exotic grasses and herbs.



**Table 3**  
**Vegetation Types in the Existing Offset Areas**

Community No.*	Belubula River/Flyers Creek	Black Rock Range	PCT code	Short Name	Plant Community Type (OEH, 2014b)	Dominant Species on Study Areas
1	✓	-	85	River Oak Forest	<i>River Oak forest and woodland wetland of the NSW South Western Slopes and South Eastern Highlands Bioregions</i>	River Oak ( <i>Casuarina cunninghamiana</i> ), River Red Gum ( <i>Eucalyptus camaldulensis</i> )
2	✓	-	277	Yellow Box Woodland (Box-Gum Woodland EEC)	<i>Blakely's Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion</i>	Yellow Box ( <i>Eucalyptus melliodora</i> ), Apple Box ( <i>Eucalyptus bridgesiana</i> )
3	-	✓	266	White Box Woodland (Box-Gum Woodland EEC)	<i>White Box grassy woodland in the upper slopes sub-region of the NSW South Western Slopes Bioregion</i>	White Box ( <i>Eucalyptus albens</i> )
4	-	✓	1095	Red Stringybark Woodland	<i>Red Stringybark woodland of the dry slopes of the South Western Slopes Bioregion</i>	Red Stringybark ( <i>Eucalyptus macrorhyncha</i> ), Red Box ( <i>Eucalyptus polyanthemus</i> )
6	✓	✓	N/A	Exotic Grassland	-	Great Brome ( <i>Bromus diandrus</i> ), Soft Brome ( <i>Bromus hordeaceus</i> ), <i>Vulpia muralis</i> , Wimmera Ryegrass ( <i>Lolium rigidum</i> )

\* Note: Community 5 does not occur in the existing offset area.

#### **Black Rock Range**

There were remnants of the following vegetation communities on the Black Rock Range study area (Figure 3, Table 3):

- White Box Woodland (Community 3);
- Red Stringybark Woodland (Community 4);
- Exotic grassland (Community 6).

The vegetation on the Black Rock Range offset area had a small area of Red Stringybark Woodland that was not found on the other areas (Figure 3, Table 3).

### 5.1.2 Flora Species

The flora species recorded on the two existing offset areas are given for each quadrat in Appendix 1. Table 4 summarises the total numbers of native and introduced flora species identified on three quadrats for Belubula River/Flyers Creek and two quadrats at Black Rock Range.

**Table 4**  
**Summary of Flora Species Numbers in the Existing Offset Areas**

Area	Native Species	%	Introduced Species	%	Total
Belubula/Flyers	14	20.3	55	79.7	69
Black Rock Range	20	40.8	29	59.2	49

The results show that introduced species dominated on both areas and that relatively few native species were present (Table 4).

### 5.1.3 Noxious Weeds

The introduced species shown below are listed as Class 4 noxious weeds under the NSW *Noxious Weeds Act, 1993* (DPI, 2014) for the Upper Macquarie County Council Area and occurred on both existing offset areas (Appendix 1);

- Blackberry (*Rubus fruticosus* species aggregate; includes *R. anglocandicans*);
- St. John's Wort (*Hypericum perforatum*); and
- Sweet Briar (*Rosa rubiginosa*).

Blackberry and Sweet Briar occurred in only low numbers indicating they have been well controlled. However, moderate numbers of St. John's Wort were present in Exotic Grassland at Black Rock Range.

### 5.1.4 Vegetation Condition

BioMetric data on vegetation condition for the two existing offset areas are presented in Tables 5 and 6. For the Belubula River/Flyers Creek area, the data show that the River Oak Forest and the small remnant of Yellow Box Woodland were both in poor condition with their ground cover in 'low' condition owing to a high dominance of exotic species; 68% exotic cover for River Oak Forest and 100% exotic cover for Yellow Box Woodland (Table 5). The River Oak Forest met or exceeded benchmark values only for native overstorey cover, other native groundcover and the number of trees with hollows. On all other measures River Oak Forest was well below the benchmarks. The Yellow Box Woodland also met or exceeded only three of the ten benchmarks; native overstorey cover, number of trees with hollows and length of fallen logs.

**Table 5**  
**Vegetation Condition Data – Belubula River/Flyers Creek Area**

Vegetation Type	No. of Replicates	Recorded Values			Benchmarks	
		Lower	Upper	Average	Lower	Upper
Native plant species richness (number of species)						
River Oak Woodland	2	6	8	7	21	-
Yellow Box Woodland	1	6	-	6	23	-
Native overstorey cover (%)						
River Oak Woodland	2	26.5	63.0	44.8	15	43
Yellow Box Woodland	1	28.5	-	28.5	8	35
Native midstorey cover (%)						
River Oak Woodland	2	0	0	0	1	20
Yellow Box Woodland	1	0	-	0	1	20
Native groundcover – grasses (%)						
River Oak Woodland	2	0	0	0	1	35
Yellow Box Woodland	1	0	-	0	15	70
Native groundcover – shrubs (%)						
River Oak Woodland	2	0	0	0	0	5
Yellow Box Woodland	1	0	-	0	3	5
Native groundcover – other (%)						
River Oak Woodland	2	6	6	6.0	5	20
Yellow Box Woodland	1	0	-	0	3	20
Exotic plant cover (%)						
River Oak Woodland	2	68	72	70.0	-	-
Yellow Box Woodland	1	100	-	100.0	-	-
Number of trees with hollows						
River Oak Woodland	2	2	3	2.5	1	-
Yellow Box Woodland	1	2	-	2	0.8	-
Regeneration (proportion of tree species)						
River Oak Woodland	2	100	100	100.0	-	-
Yellow Box Woodland	1	0	-	0	-	-
Total length of fallen logs (m)						
River Oak Woodland	2	17.7	23.1	20.4	50	-
Yellow Box Woodland	1	100.6	-	100.6	66	-

**Table 6**  
**Vegetation Condition Data – Black Rock Range Area**

Vegetation Type	No. of Replicates	Recorded Values			Benchmarks	
		Lower	Upper	Average	Lower	Upper
Native plant species richness (number of species)						
White Box Woodland	1	13	-	13	23	-
Exotic Grassland	2	8	-	8	23	-
Native overstorey cover (%)						
White Box Woodland	1	21.5	-	21.5	8	35
Exotic Grassland	2	0	-	0	8	35
Native midstorey cover (%)						
White Box Woodland	1	0	0	0	1	20
Exotic Grassland	2	0	-	0	1	20
Native groundcover – grasses (%)						
White Box Woodland	1	6	-	6	15	70
Exotic Grassland	2	2	-	2.0	15	70
Native groundcover – shrubs (%)						
White Box Woodland	1	0	-	0	3	5
Exotic Grassland	2	0	-	0	3	5
Native groundcover – other (%)						
White Box Woodland	1	0	-	0	3	20
Exotic Grassland	2	4	-	4.0	3	20
Exotic plant cover (%)						
White Box Woodland	1	72	-	72.0	-	-
Exotic Grassland	2	94	-	94.0	-	-
Number of trees with hollows						
White Box Woodland		0	-	0	0.8	-
Exotic Grassland	1	0	-	0	0.8	-
Regeneration (proportion of tree species)						
White Box Woodland	1	0	-	0	-	-
Exotic Grassland	2	0	-	0	-	-
Total length of fallen logs (m)						
White Box Woodland	1			35.0	66	-
Exotic Grassland	2	0	-	0	66	-

The data for the Black Rock Range area show the vegetation was in poor condition. The groundcover was in low condition with much greater than 50% cover by exotic species for the White Box Woodland (72%) and the Exotic Grassland (90%) (Table 6). White Box Woodland was in poor condition, meeting only one benchmark, native overstorey cover, and falling well short of all others (Table 6).

There are no benchmarks for Exotic Grassland in DECC (2008a) for the Lachlan Local Land Services (Lachlan LLS) region. It is considered the grassland is likely to have resulted from clearing Yellow Box or White Box Woodland and accordingly is compared with the benchmarks for Yellow Box Woodland here. Since it met only one of the Yellow Box Woodland benchmarks, other native groundcover, and its ground cover was in low condition, the Exotic Grassland is considered to be in very poor condition overall.

#### **5.1.5 Threatened Flora**

##### ***Belubula River /Flyers Creek***

No threatened flora species were identified in the existing Belubula River/Flyers Creek offset area.

One PCT at the Belubula River/Flyers Creek offset area, *Blakely's Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion*, is potentially part of the Box-Gum Woodland EEC/CEEC. Whether or not the remnant on the study area is considered part of the Box-Gum Woodland EEC/CEEC depends on whether it meets the relevant NSW (NPWS, undated) or Commonwealth (DEH, 2006) identification guidelines for acceptance. The guidelines are summarised in Table 7 and compared to the data obtained on the study area. The analysis indicates the Box-Gum Woodland remnants conform to the TSC Act EEC, but not the EPBC Act CEEC. In the latter case, the very poor condition of the ground cover excludes the remnant from the CEEC.

**Table 7**  
**Belubula River/Flyers Creek Area-**  
**Conformance with Identification Criteria for the Box-Gum Woodland EEC/CEEC**

Category	TSC Act		EPBC Act	
	Criterion	Conforms?	Criterion	Conforms?
Native understorey	Any native species present	Yes [Six native species on quadrat]	Predominantly native ground cover defined as 'at least 50% of the perennial vegetation cover in the ground layer is made up of native species'.	No [More exotic than native perennial species / cover]
Resilience	Site is 'likely to respond to assisted natural regeneration'	Yes [There is very limited potential for natural regeneration]	NA	-
Trees	Site has, or is likely to have had prior to clearing, White Box, Yellow Box and/or Blakely's Red Gum.	Yes [Yellow Box present]	Site has, or is likely to have had prior to clearing, White Box, Yellow Box and/or Blakely's Red Gum.	Yes [Yellow Box present]
Ground cover	Predominantly grassy	Yes [Introduced, not native grasses]	Native tussock grasses and herbs, and a sparse, scattered shrub layer.	No No native tussock grasses or shrubs]
Shrubs	'Shrubs are generally sparse or absent, though they may be locally common.'	Yes [No native shrubs recorded]	Patches with 'a continuous shrub layer of more than 30% cover' are excluded from the CEEC.	Yes [Native shrubs absent]
Important species	N/A	-	Twelve or more native (non-grass) understorey species present, including at least one 'important' species.	No [Only 4 native understorey species]
Disturbance	Natural soil and associated seed bank are still or at least partially intact.	Yes [Very limited potential]	Site is still the CEEC even if treeless, provided it has 'an intact native ground layer with a high diversity of native plant species'.	No [Native ground layer is depauperate]
Size	Not important	-	At least 0.1 ha with more than 12 native understorey species (not grasses) OR greater than 2 ha with an average of 20+ trees per ha, or active tree regeneration.	No [<12 non-grass native understorey species; <2 ha in area]



**Black Rock Range**

Two PCTs at Black Rock Range, *Blakely's Red Gum – Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion*, and *White Box grassy woodland in the upper slopes sub-region of the NSW South Western Slopes Bioregion* are potentially part of the Box-Gum Woodland EEC/CEEC. An analysis (Table 8) indicates that the Box-Gum Woodland remnants conform to the TSC Act EEC (Figure 5) but not to the EPBC Act CEEC (Figure 6). No threatened flora species were identified in the existing Black Rock Range offset area.

**Table 8**  
**Black Rock Range Area-**  
**Conformance with Identification Criteria for the Box-Gum Woodland EEC/CEEC**

Category	TSC Act		EPBC Act	
	Criterion	Conforms?	Criterion	Conforms?
Native understorey	Any native species present	Yes [9 native species present]	Predominantly native ground cover defined as 'at least 50 percent of the perennial vegetation cover in the ground layer is made up of native species'.	Yes [Most exotic species are annuals, while most natives are perennials]
Resilience	Site is 'likely to respond to assisted natural regeneration'	Yes	NA	-
Trees	Site has, or is likely to have had prior to clearing, White Box, Yellow Box and/or Blakely's Red Gum.	Yes [Yellow Box and White Box present]	Site has, or is likely to have had prior to clearing, White Box, Yellow Box and/or Blakely's Red Gum.	Yes [Yellow Box and White Box present]
Ground cover	Predominantly grassy	Yes	Native tussock grasses and herbs, and a sparse, scattered shrub layer.	No [Ground layer dominated by exotic species]
Shrubs	'Shrubs are generally sparse or absent, though they may be locally common.'	Yes [Native shrubs are sparse]	Patches with 'a continuous shrub layer of more than 30 percent cover' are excluded from the CEEC.	Yes [Only a few tall native shrubs present]
Important species	NA	-	Twelve or more native (non grass) understorey species present, including at least one 'important' species.	No [9 present, 1 important]
Disturbance	Natural soil and associated seed bank are still or at least partially intact.	Yes [Seed bank likely to be partially intact, although considerably reduced]	Site is still the CEEC even if treeless, provided it has 'an intact native ground layer with a high diversity of native plant species'.	No [Native ground layer depauperate and dominated by exotic species]
Size	Not important	-	At least 0.1 ha with more than 12 native understorey species (not grasses) OR greater than 2 ha with an average of 20+ trees per ha, or active tree regeneration.	No  No [Tree densities low, regeneration lacking]

### 5.1.6 Fauna Habitat

Fauna habitat values for both existing offset areas are relatively low for the following reasons;

- The eucalypt canopy has been substantially thinned in both areas. Nevertheless, the remaining canopy provides habitat for a range of open woodland bird species and foraging opportunities for possums and gliders. In the case of the Belubula River/Flyers Creek area, the often dense River Oak canopy provides shelter for a variety of bird species, especially those associated with aquatic habitats.
- The open grassland areas dominated by exotic species have limited habitat value, except for macropods, granivorous birds such as finches and common insectivorous birds adapted to grasslands such as Yellow-tailed Thornbills and Magpies.
- There are limited opportunities for reptiles with few logs on the ground or surface rocks for habitat on both areas.
- Both areas have retained old growth trees with hollows suitable for a variety of wildlife, but they are scattered in a cleared landscape with limited habitat available to denning or nesting species that depend on woodlands and forests.
- Both areas lack dense shrub cover required by some bird species for nesting and foraging.

## 5.2 PROPOSED STRATTON VALE REPLACEMENT AREA

### 5.2.1 Vegetation Communities

The PCTs detailed below are considered closest in floristic composition and site characteristics to those described in the OEH (2014b) Plant Community Types Database.

The vegetation on the proposed Stratton Vale replacement area is fairly uniform (Figure 4, Table 9), and comprises four vegetation communities:

- Yellow Box Woodland (Community 2);
- White Box Woodland (Community 3);
- Derived Grassland (Community 5); and
- Exotic Grassland (Community 6).

The original woodland vegetation on Stratton Vale has been thinned historically and now comprises mostly widely spaced trees separated by grassland dominated by exotic grasses and legumes. The larger treeless areas have been mapped as Exotic Grassland on Figure 4. Some large areas of derived native grassland also occur. These are dominated by grazing-tolerant native species including Speargrass (*Austrostipa scabra*) on dry north-facing slopes and Red Grass (*Bothriochloa macra*) on south-facing slopes.

**Table 9**  
**Vegetation Types in the Proposed Stratton Vale Replacement Area**

Community No.*	PCT Code	Short Name	Plant Community Type (OEH, 2012)	Dominant Species on Study Areas
2	277	Yellow Box Woodland (Box-Gum Woodland EEC)	<i>Blakely's Red Gum – Yellow Box grassy woodland of the NSW South Western Slopes Bioregion</i>	Yellow Box ( <i>Eucalyptus melliodora</i> ), Apple Box ( <i>Eucalyptus bridgesiana</i> )
3	266	White Box Woodland (Box-Gum Woodland EEC)	<i>White Box grassy woodland on well drained podsolic clay soils on hills in the NSW South Western Slopes Bioregion</i>	White Box ( <i>Eucalyptus albens</i> )
5	N/A	Derived Grassland	-	Speargrass ( <i>Austrostipa scabra</i> ), Red Grass ( <i>Bothriochloa macra</i> )
6	N/A	Exotic Grassland	-	Phalaris ( <i>Phalaris aquatica</i> ), Madrid Brome ( <i>Bromus madritensis</i> ), Soft Brome ( <i>Bromus hordeaceus</i> ), Subterranean Clover ( <i>Trifolium subterraneum</i> )

\* Note: Communities 1 and 4 do not occur in the Stratton Vale investigation area.

#### 5.1.1 Flora Species

The flora species recorded on the proposed Stratton Vale replacement area are given for each quadrat in Appendix 1. A total of 69 flora species was observed on four quadrats and through opportunistic observations. Twenty three native (33.3%) and 46 introduced (66.7%) flora species were identified. The results showed the presence of low numbers of native species and that introduced species greatly predominated.

#### 5.1.2 Noxious Weeds

Three introduced species listed as Class 4 noxious weeds under the NSW *Noxious Weeds Act, 1993* (DPI, 2014) for the Upper Macquarie County Council Area occur on the study area (Appendix 1);

- Bathurst Burr (*Xanthium spinosum*);
- Blackberry (*Rubus anglocandicans*); and
- St. John's Wort (*Hypericum perforatum*).

All noxious weeds occurred only in low numbers indicating they have been well controlled.

### 5.1.3 Vegetation Condition

'BioMetric' vegetation condition data show that the vegetation was in relatively poor condition (Table 10). The groundcover was in low condition with greater than 50% cover by exotic species for both Yellow Box Woodland (62%) and White Box Woodland (80%) (Table 10). The Yellow Box Woodland met or exceeded only one of the ten benchmarks, native overstorey cover. However, it was very close to the lower benchmarks for groundcover by native grasses, other native groundcover, number of trees with hollows and length of fallen logs. The White Box Woodland at Stratton Vale met or exceeded the benchmarks for native overstorey cover and number of trees with hollows. It was also very close to the benchmark for groundcover by native grasses, but fell well short of five other benchmarks (Table 10).

### 5.1.4 Threatened Flora

No threatened flora species were identified on the proposed Stratton Vale replacement area.

Two PCTs, Yellow Box Woodland and White Box Woodland are potentially part of the Box-Gum Woodland EEC/CEEC. Whether or not the remnants on the study area are considered part of the Box-Gum Woodland EEC/CEEC depends on whether any patches meet the NSW (NPWS, undated) or Commonwealth (DEH, 2006) identification guidelines for acceptance. The analysis indicates that all Box-Gum Woodland remnants conform to the TSC Act EEC guidelines (Figure 5), but none conform to the EPBC Act CEEC guidelines (Figure 6) owing to the very poor condition of the ground cover (Table 11).

### 5.1.5 Fauna Habitat

The proposed Stratton Vale replacement area has relatively high fauna habitat values for the following reasons;

- Many of the remnant trees at Stratton Vale are very large and clearly pre-date European settlement. One tree hosts the nest of a Little Eagle (*Hieraaetus morphnoides*), listed as Vulnerable under the TSC Act. In addition, many of the White Box trees have hollows suitable for parrots and a nesting population of the Vulnerable Superb Parrot (*Polytelis swainsonii*) is present on and around the investigation area.
- While the groundcover is generally dominated by exotic species, there is a good representation of native perennial grasses, potentially providing habitat for granivorous birds favouring native grass seed, such as finches and the Superb Parrot.
- However, Stratton Vale is lacking in tall and low shrubs that would provide cover and nesting habitat for many birds including finches, babblers, thornbills and others.
- There are limited opportunities for most reptiles owing to very dense exotic grass cover over much of the area and relatively few logs on the ground. However, areas of surface rock on ridges and rock outcrops along Swallow Creek provide reptile habitat.
- Swallow Creek provides water for wildlife and habitat for aquatic fauna.

**Table 10**  
**Vegetation Condition Data – Proposed Stratton Vale Replacement Area**

Vegetation Type	No. of Replicates	Recorded Values			Benchmarks	
		Lower	Upper	Average	Lower	Upper
Native plant species richness (number of species)						
Yellow Box Woodland	2	8	9	8.5	23	-
White Box Woodland	2	7	8	7.5	23	-
Native overstorey cover (%)						
Yellow Box Woodland	2	39.0	56.5	47.8	8	35
White Box Woodland	2	21.5	48.5	35.0	8	35
Native midstorey cover (%)						
Yellow Box Woodland	2	0	0	0	1	20
White Box Woodland	2	0	0	0	1	20
Native groundcover – grasses (%)						
Yellow Box Woodland	2	10.0	18.0	14.0	15	70
White Box Woodland	2	4.0	24.0	14.0	15	70
Native groundcover – shrubs (%)						
Yellow Box Woodland	2	0	0	0	3	5
White Box Woodland	2	0	0	0	3	5
Native groundcover – other (%)						
Yellow Box Woodland	2	0	4.0	2.0	3	20
White Box Woodland	2	0	2.0	1.0	3	20
Exotic plant cover (%)						
Yellow Box Woodland	2	50.0	74.0	62.0	-	-
White Box Woodland	2	76.0	84.0	80.0	-	-
Number of trees with hollows						
Yellow Box Woodland	2	0	1	0.5	0.8	-
White Box Woodland	2	0	2	1.0	0.8	-
Regeneration (proportion of tree species)						
Yellow Box Woodland	2	0	33.0	16.5	-	-
White Box Woodland	2	0	0	0	-	-
Total length of fallen logs (m)						
Yellow Box Woodland	2	35.1	59.2	47.2	66	-
White Box Woodland	2	30.8	41.7	36.3	66	-

**Table 11**  
**Proposed Stratton Vale Replacement Area -**  
**Conformance with Identification Criteria for the Box-Gum Woodland EEC/CEEC**

Category	TSC Act		EPBC Act	
	Criterion	Conforms?	Criterion	Conforms?
Native understorey	Any native species present	Yes [Low numbers of grazing tolerant native species are present]	Predominantly native ground cover defined as 'at least 50 percent of the perennial vegetation cover in the ground layer is made up of native species'.	No [Ground cover is dominated by exotics including perennial species]
Resilience	Site is 'likely to respond to assisted natural regeneration'	Yes There is limited potential for recovery of remaining resilient native species]	NA	-
Trees	Site has, or is likely to have had prior to clearing, White Box, Yellow Box and/or Blakely's Red Gum.	Yes [Yellow Box and White Box present]	Site has, or is likely to have had prior to clearing, White Box, Yellow Box and/or Blakely's Red Gum.	Yes [Yellow Box and White Box present]
Ground cover	Predominantly grassy	Yes [Although mainly exotic species]	Native tussock grasses and herbs, and a sparse, scattered shrub layer.	No [Ground cover dominated by exotics (Table 12)]
Shrubs	'Shrubs are generally sparse or absent, though they may be locally common.'	Yes [Native shrubs absent]	Patches with 'a continuous shrub layer of more than 30 percent cover' are excluded from the CEEC.	Yes [Native shrubs absent]
Important species	NA	-	Twelve or more native (non grass) understorey species present, including at least one 'important' species.	No [Fewer than 12 native ground cover species present on all quadrats (Table 12)]
Disturbance	Natural soil and associated seed bank are still or at least partially intact.	Yes [Only a limited range of resilient species persists]	Site is still the CEEC even if treeless, provided it has 'an intact native ground layer with a high diversity of native plant species'.	No
Size	Not important	-	At least 0.1 ha with more than 12 native understorey species (not grasses) OR greater than 2 ha with an average of 20+ trees per ha, or active tree regeneration.	No  No (Trees are sparse)



## **6 DISCUSSION AND CONCLUSIONS**

Owing to similar histories of land use the three areas under investigation have many similarities in vegetation condition;

- All have had their original tree canopies heavily thinned and all have significant grassland expanses where most trees have been removed.
- All areas have virtually no extant tall or low shrubs owing to long histories of intensive livestock grazing and pasture improvement. Although Box-Gum Woodlands are predominantly grassy, they have a moderate shrub cover in their natural state, which provides habitat for a wide range of fauna species.
- Except for some small areas with northern and eastern aspects, the ground cover on all areas was heavily dominated by introduced annual and perennial grasses, and consequently is in 'low' condition as defined in the BioBanking assessment methodology (DECC, 2008b).
- The diversity of native flora was low on all areas.
- The proposed Stratton Vale replacement area has significant numbers of old growth Box trees with hollows suitable for a wide range of wildlife. Logs on the ground are present within patches of remnant woodland vegetation, but are generally absent from open grassland areas. Limited areas of rock outcrop and surface rock suitable for many reptiles are present at Stratton Vale. The Stratton Vale area is notable in having actual breeding habitat for two Vulnerable fauna species, the Little Eagle and the Superb Parrot.
- Owing to the very broad definition of the NSW Box-Gum Woodland EEC, all mapped occurrences of Yellow Box Woodland and White Box Woodland belong to the EEC. By contrast, the very strict Commonwealth Box-Gum Woodland CEEC guidelines mean that no areas investigated met the CEEC guidelines.

## 7 REFERENCES

- Anderson, R.H. (1961). Introduction. *Contributions from the NSW National Herbarium*. Nos. 1-18: 1-15.
- DEC (2004). *Threatened Species Survey and Assessment: Guidelines for Developments and Activities*. Working Draft. Department of Environment and Conservation, Sydney
- DECC (2008a). *Vegetation Benchmarks Database*. Web Page:  
<http://www.environment.nsw.gov.au/biobanking/vegtypedatabase.htm>  
Accessed: August, 2014. Office of Environment and Heritage, Sydney
- DECC (2008b). *BioBanking Assessment Methodology and Credit Calculator Operational Manual*. Department of Environment and Climate Change, Sydney
- DEH (2006). *White box - yellow box - Blakely's red gum grassy woodlands and derived native grasslands*. EPBC Act policy statement 3.5. Department of the Environment and Housing, Canberra.
- DotE (2014). *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland*. SPRAT Profile. Website: <http://www.environment.gov.au/cgi-bin/sprat/public/publicshowcommunity.pl?id=43>. Accessed: November 2014. Department of the Environment, Canberra.
- DPI (2014). *Noxious weed declarations*. Website: <http://www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds/noxweed>. Accessed November 2014. NSW Department of Primary Industries.
- Gibbons, P., Ayers, D., Seddon, J., Doyle, S. and Briggs, S. (2005) *Operational Manual for Biometric – A terrestrial Biodiversity Assessment Tool for the NSW Property Vegetation Plan Developer*. New South Wales Department of Environment and Conservation, Hurstville.
- Harden, G.J. (Ed.) (1990 - 2002) *Flora of New South Wales*, Volumes 1 to 4 and revisions. University of New South Wales Press, Sydney.
- NPWS (undated) *White Box Yellow Box Blakely's Red Gum Woodland (Box-Gum Woodland). Identification Guidelines for Endangered Ecological Communities*. NSW National Parks and Wildlife Service.
- NSW Scientific Committee (2002). *White Box Yellow Box Blakely's Red Gum Woodland Endangered Ecological community listing. Final Determination*. Website:  
<http://www.environment.nsw.gov.au/determinations/BoxgumWoodlandEndComListing.htm>  
Accessed: November 2014.
- OEH (2012). *Vegetation Types Database*.  
Website: <http://www.environment.nsw.gov.au/biobanking/VegTypeDatabase.htm>  
Accessed: November 2014. Office of Environment and Heritage, Sydney.

OEH (2014a). *Field Survey Methods*. Website:

<http://www.environment.nsw.gov.au/threatenedspecies/surveymethodsfauna.htm>

(Accessed: November 2014). Office of Environment and Heritage, Sydney.

OEH (2014b). *VIS Classification 2.1*. Website:

<http://www.environment.nsw.gov.au/NSWVCA20PRapp/search/pctsearch.aspx>

(Accessed: November 2014). Office of Environment and Heritage, Sydney.

PlantNet (2014). New South Wales FloraOnline. Website:

<http://plantnet.rbgsyd.nsw.gov.au/search/simple.htm>. Accessed November 2014.

Thackway, R. and Cresswell, I.D. (eds) (1995). *An Interim Biogeographic Regionalisation for Australia: a framework for establishing the national system of reserves*. Version 4.0. Australian Nature Conservation Agency: Canberra.

**APPENDIX 1. Flora Species and Cover Abundance on Each Quadrat**  
**[the community number heads each quadrat column]**

Scientific Name	Common Name	Belubula/Flyers			Black Rock		Stratton Vale				
		1	1	2	3	6	2	2	3	3	Opp.
<b>CLASS FILICOPSIDA</b>											
<b>Pteridaceae</b>											
<i>Cheilanthes sieberi</i>	Poison Rock Fern				1						
<b>CLASS MAGNOLIOPSIDA</b>											
<b>SUBCLASS MAGNOLIIDA</b>											
<b>Amaranthaceae</b>											
<i>Alternanthera</i> sp. A								1			
<b>Apiaceae</b>											
<i>*Conium maculatum</i>	Hemlock	4	5								
<i>*Torilis nodosa</i>	Knotted Hedge-parsley				1						
<b>Asteraceae</b>											
<i>*Arctotheca calendula</i>	Capeweed							5			
<i>*Carduus pycnocephalus</i>	Slender Thistle	2	3	•	1		•		3	4	
<i>*Carthamus lanatus</i>	Saffron Thistle				1	4				1	
<i>*Chondrilla juncea</i>	Skeleton Weed			•	2	3	•				
<i>*Cirsium vulgare</i>	Spear Thistle		2	•		1	•	2	2	3	
<i>*Conyza sumatrensis</i>	Tall Fleabane	2	2								
<i>*Hypochaeris radicata</i>	Flatweed	1	1			1					
<i>*Lactuca serriola</i>	Prickly Lettuce	1		•		1	•	1		1	
<i>Senecio quadridentatus</i>	Cotton Fireweed	1									
<i>*Silybum marianum</i>	Variegated Thistle	5	1	•		2	•	2	4	3	
<i>*Sonchus asper</i>	Prickly Sowthistle		2								
<i>*Sonchus oleraceus</i>	Common Sowthistle	2	3	•	1			2		2	
<i>*Xanthium spinosum</i>	Bathurst Burr						•			1	
<b>Boraginaceae</b>											
<i>*Echium plantagineum</i>	Paterson's Curse	2	2	•	5	1		1		1	
<b>Brassicaceae</b>											
<i>*Hirschfeldia incana</i>	Hairy Brassica	3	1								
<i>*Lepidium africanum</i>	African Peppergrass							2			
<i>*Raphanus raphanistrum</i>	Wild Radish				1						
<i>*Sisymbrium officinale</i>	Hedge Mustard	3	3	•			•	5	6	5	
<b>Campanulaceae</b>											
<i>Wahlenbergia gracilis</i>	Sprawling Bluebell							1			
<b>Caryophyllaceae</b>											
<i>*Petrorhagia nanteuillii</i>		2			1	1					
<i>*Stellaria media</i>	Common Chickweed	1									
<b>Casuarinaceae</b>											
<i>Casuarina cunninghamiana</i>	River Sheoak	6	8								
<b>Chenopodiaceae</b>											
<i>*Chenopodium album</i>	Fat Hen				1						
<i>*Chenopodium murale</i>	Nettle-leaf Goosefoot									1	
<i>Einadia nutans</i> subsp. <i>nutans</i>	Climbing Saltbush									2	
<b>Clusiaceae</b>											
<i>*Hypericum perforatum</i>	St. John's Wort	1				3	•				
<b>Convolvulaceae</b>											

Scientific Name	Common Name	Belubula/Flyers			Black Rock		Stratton Vale				
		1	1	2	3	6	2	2	3	3	Opp.
<i>Dichondra repens</i>	Kidney Weed		2	•			•			2	
<b>Crassulaceae</b>											
<i>Crassula sieberiana</i>	Australian Stonecrop							1			
<b>Euphorbiaceae</b>											
* <i>Euphorbia peplus</i>	Petty Spurge	1	1								
<b>Fabaceae: Faboideae</b>											
<i>Desmodium varians</i>	Slender Tick-trefoil				1						
* <i>Medicago polymorpha</i>	Burr Medic	3		•			•	1		3	
* <i>Medicago truncatula</i>	Barrel Medic								2		
* <i>Trifolium angustifolium</i>	Narrow-leaved Clover				1	3			2		
* <i>Trifolium arvense</i>	Haresfoot Clover	2			1			1	2		
* <i>Trifolium campestre</i>	Hop Clover							2	3		
* <i>Trifolium glomeratum</i>	Clustered Clover	1			3			3	2	3	
* <i>Trifolium repens</i>	White Clover		2								
* <i>Trifolium subterraneum</i>	Subterranean Clover	2		•			•	2	3	2	
* <i>Trifolium suffocatum</i>	Suffocated Clover				3	4	•	4	4	4	
<b>Fabaceae: Mimosoideae</b>											
<i>Acacia leucoclada</i>					4						
<b>Fumariaceae</b>											
* <i>Fumaria capreolata</i>	Climbing Fumitory	4	6								
<b>Geraniaceae</b>											
* <i>Erodium cicutarium</i>	Common Storksbill							1			
* <i>Geranium molle</i>	Cranesbill Geranium						•				
<i>Geranium retrorsum</i>	Common Cranesbill	3	5	•			•		3	2	
<i>Geranium solanderi</i>	Native Geranium				3						
<b>Goodeniaceae</b>											
<i>Goodenia pinnatifida</i>											•
<b>Lamiaceae</b>											
* <i>Marrubium vulgare</i>	White Horehound				1			2			
* <i>Mentha x piperita</i> <i>nothomorph citrata</i>			4								
* <i>Salvia verbenaca</i>	Vervain		1				•	4	2	1	
<i>Scutellaria humilis</i>	Dwarf Skullcap				2						
<b>Loranthaceae</b>											
<i>Amyema miquelii</i>					3						
<b>Malvaceae</b>											
<i>Brachychiton populneus</i>	Kurrajong				1						
* <i>Malva parviflora</i>	Small-flowered Mallow	3		•			•	4		4	
* <i>Modiola caroliniana</i>	Red-flowered Mallow	1	2	•		2	•	4	1	2	
<b>Myrtaceae</b>											
<i>Eucalyptus albens</i>	White Box				6				8	8	
<i>Eucalyptus bridgesiana</i>	Apple Box			•							
<i>Eucalyptus camaldulensis</i>	River Red Gum	6									
<i>Eucalyptus melliodora</i>	Yellow Box			•			•	6			
<b>Myrsinaceae</b>											
* <i>Anagallis arvensis</i>	Scarlet Pimpernel		2								
<b>Nyctaginaceae</b>											
<i>Boerhavia dominii</i>	Tarvine					2					
<b>Onagraceae</b>											

Scientific Name	Common Name	Belubula/Flyers			Black Rock		Stratton Vale				
		1	1	2	3	6	2	2	3	3	Opp.
<i>Epilobium billardierianum</i> subsp. <i>cinereum</i>							•				
<i>Epilobium hirtigerum</i>			1								
<b>Oxalidaceae</b>											
<i>Oxalis perennans</i>	A Woodsorrel						•			1	
<i>Oxalis thompsoniae</i>				•		2					
<b>Pittosporaceae</b>											
<i>Bursaria spinosa</i>	Boxthorn										•
<b>Plantaginaceae</b>											
<i>*Plantago lanceolata</i>	Lamb's Tongues	2	2	•						2	
<b>Polygonaceae</b>											
<i>Rumex brownii</i>	Swamp Dock	2		•	1	1	•	1	3		
<i>*Rumex conglomeratus</i>	Clustered Dock		4								
<b>Rosaceae</b>											
<i>Acaena agnipila</i>					1				2		
<i>*Rosa rubiginosa</i>	Sweet Briar	1			1	1					
<i>*Rubus anglocandicans</i>	Blackberry	1	1				•	2			
<i>*Sanguisorba minor</i>	Salad Burnet	1									
<b>Rubiaceae</b>											
<i>*Galium aparine</i>	Goosegrass	1	5	•							
<i>*Sherardia arvensis</i>	Field Madder								1		
<b>Salicaceae</b>											
<i>*Salix viminalis</i>	Basket Willow		2								
<b>Scrophulariaceae</b>											
<i>*Orobancha minor</i>		1					•				
<i>*Verbascum virgatum</i>	Twiggy Mullein	1									
<b>Solanaceae</b>											
<i>*Solanum nigrum</i>	Black-berry Nightshade		1		1			1			
<b>Urticaceae</b>											
<i>Urtica incisa</i>	Stinging Nettle		3								
<i>*Urtica urens</i>	Small Nettle		5	•			•			3	
<b>Verbenaceae</b>											
<i>*Verbena incompta</i>	Purpletop		3								
<i>*Verbena officinalis</i>	Common Verbena	2									
<b>SUBCLASS LILIIDAE</b>											
<b>Cyperaceae</b>											
<i>Carex inversa</i>	Knob Sedge					5	•				
<i>*Cyperus eragrostis</i>	Umbrella Sedge	1	2								
<i>Isolepis hookeriana</i>			2								
<b>Juncaceae</b>											
<i>*Juncus articulatus</i>			2								
<i>Juncus usitatus</i>			1								
<b>Lomandraceae</b>											
<i>Lomandra filiformis</i> subsp. <i>filiformis</i>	Wattle mat-rush					1					
<b>Poaceae</b>											
<i>Austrostipa bigeniculata</i>											•
<i>Austrostipa scabra</i>	Speargrass							5			•
<i>*Avena barbata</i>	Bearded	2	2								



Scientific Name	Common Name	Belubula/Flyers			Black Rock		Stratton Vale				
		1	1	2	3	6	2	2	3	3	Opp.
<i>*Avena fatua</i>	Wild Oats				1			1			
<i>Bothriochloa macra</i>	Red Grass				1					1	•
<i>*Briza minor</i>	Small Shivery Grass					1					
<i>*Bromus catharticus</i>	Prairie Grass	3	3	•			•	6			
<i>*Bromus diandrus</i>	Great Brome	6	2	•	6	3				6	
<i>*Bromus hordeaceus</i>	Soft Brome	2		•	2	6	•	3	3	2	
<i>*Bromus madritensis</i>	Madrid Brome						•	3	4		
<i>Cynodon dactylon</i>	Couch	3	3								
<i>*Dactylis glomerata</i>	Cocksfoot	2	4					2	2		
<i>Elymus scaber</i>	Wheat Grass					2		1			
<i>*Holcus lanatus</i>	Yorkshire Fog		4								
<i>*Hordeum leporinum</i>	Barley Grass			•	1		•	6	3	6	
<i>*Lolium perenne</i>	Perennial Ryegrass	3		•			•	4	7	6	
<i>*Lolium rigidum</i>	Wimmera Ryegrass	5	3	•	2	2			4	1	
<i>Microlaena stipoides</i>	Weeping Grass					2	•	2	3	1	
<i>Panicum effusum</i>	Hairy Panic					4					
<i>*Paspalum dilatatum</i>	Paspalum	2		•			•				
<i>*Phalaris aquatica</i>	Phalaris	2	3	•		2	•			2	
<i>*Poa pratensis</i>	Kentucky Bluegrass		2								
<i>Poa sieberiana</i>	Snow Grass								2		
<i>Rytidosperma caespitosum</i>	Ringed Wallaby Grass				6		•	5	4	5	
<i>Rytidosperma racemosum</i>					1						
<i>*Vulpia muralis</i>						5					
<i>*Vulpia myuros</i>	Rat's Tail Fescue							2			
Total Native Species	43	14			20		23				
Total Introduced Species	76	55			29		46				
Total Species	119	69			49		69				

\* = Introduced species; • = Species present





## PLANNING PROPOSAL

Rezoning of Land from  
RU1 Primary Production to RU5 Village  
"Cheneyvale" 61 Forest Reefs Road, Millthorpe

Prepared for  
Glenn and Lynne Mortimer  
December 2016

Ref: PP PJ816046

343 Summer St, PO Box 1827, Orange NSW 2800

telephone 02 6943 9855 - facsimile 02 6940 4700 - mobile 0400 893 034 - email peter@peterbasha.com.au - also 01 550 819 095

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## 1.0 INTRODUCTION

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### 1.1 OVERVIEW

This Planning Proposal has been prepared in accordance with Section 55 of the Environmental Planning & Assessment Act 1979 (the Act) and the Department of Planning's advisory document *A Guide to Preparing Planning Proposals*. A Gateway determination under Section 56 of the Act is requested.

The Planning Proposal seeks to rezone the subject land from RU1 Primary Production to RU5 Village. The subject land is described as Lot 286 DP 1018875. The address is 61 Forest Reefs Road, Millthorpe.

### 1.2 BASIS FOR THE PLANNING PROPOSAL

The Planning Proposal is predicated on the basis that the northern half of the subject land has been identified in the *Blayney Settlement Strategy* (the Strategy) as a future investigation area for the expansion of the Millthorpe village zone.

The Strategy, at Section 4.21.6 *Future Growth Directions* states:

*There is potential for a future investigation area for an extension of the Village Zone in Millthorpe at the corner of Forest Reefs Road and Glenorie Road that has the following benefits including, but not limited to:*

- *It is adjacent to, and a natural extension of the existing Village Zone in close proximity to the town centre.*
- *It is adjacent to existing town utilities/services (water, sewerage, gas, electricity) that will reduce development cost and allow more efficient utilisation of existing infrastructure.*
- *The land sits at a relatively low contour resulting in lower visibility from the heritage town centre and this improves its chance of addressing heritage/visual impact issues.*
- *Future development of this land may allow for development of a road corridor along the western edge of the investigation zone that would increase access to the rear of the Forest Reefs Road Village lots and the future investigation area for large lot residential development – producing a more efficient/cost effective access solution.*

*Investigation of the area will only be required once the short and medium term infill development opportunities reach 60-70% take-up of existing vacant land/lots.*

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*Planning & Development*

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This Planning Proposal will demonstrate consistency or satisfactory performance in terms of the above matters. In particular:

- As recognised by the Strategy, the subject does indeed represent a natural extension of the existing Village zone. However, the southern half of the subject land has been excluded from the investigation area. This Planning Proposal will demonstrate that this tract of land ought to be included in the Village extension for the following reasons:
  - Development of this section of the land will not impact on local scenic or landscape values. The southern section of the land does not rise markedly above the northern half and therefore does not appear prominent in broader views or views looking from the village towards the south west.
  - In any event, a modest lot yield is proposed over this part of the land and development opportunities would be limited so as to maintain scenic values. The attached Figure 4 provides a development concept and shows that proposed Lots 11, 12 and 13 would occupy this part of the land. Proposed Lot 13 would excise the dwelling and its ancillary buildings. In effect only 2 new dwellings would eventuate and these would remain at a similar or lower contour compared to existing dwellings on neighbouring properties.
  - Inclusion of the southern half would facilitate a sensible transition between existing and planned land uses. The neighbouring land immediately to the southwest of the subject land is identified as an investigation area for rural residential (or large lot residential) development under the *Blayney Cabonne Orange Sub-Regional Rural and Industrial Land Use Strategy* (BCO Strategy). Subject to future investigations and the rezoning process, there is potential for that to be developed with large residential lots, similar to that which already exists further to the west (i.e. dwellings on lots with a minimum lot size of 2 hectares). Proposed Lots 11, 12 and 13 due to their lot size would form a gradual transition between the potential smaller village lots to the north and the potential large residential lots to the south west.
  - The extension of utility services will become a more economic proposition by allowing the southern section to be developed. Preliminary engineering investigations indicate that any services that are extended to serve the future lots within the northern section of the subject land would also be able to serve proposed Lots 11, 12 and 13 to make proper and efficient use of public infrastructure.
  - Notwithstanding its exclusion from the nominated investigation area, it can be demonstrated that inclusion of the southern half of the subject land would satisfy the other relevant considerations under the Strategy.

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*Planning & Development*

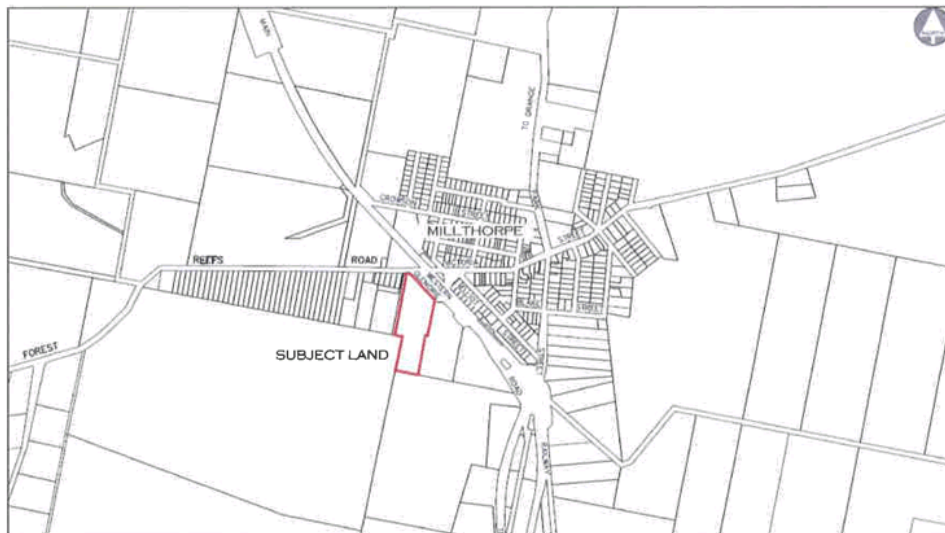
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- The Strategy states that this investigation area will only come under consideration *once the short and medium term infill development opportunities reach 60-70% take-up of existing vacant land/lots*. This Planning Proposal will demonstrate that the strong take-up of vacant residential lots to date would justify the proposed Village extension. In this regard:
  - The attached Figure 7 shows that there were 48 vacant residential lots in the existing Village area in 2009. As at December 2016, the number of vacant residential lots has reduced to 12. A new dwelling has been constructed on each of the 36 lots that have been consumed in this period.
  - The Strategy expected 32 of these 48 lots to be developed over the next 30 years (i.e. the period 2006 to 2036). Such is the strength of demand, that in fact 36 lots have been developed in 7 years (i.e. the period 2009 to 2016).
  - The Strategy identifies "Heap's Land" within the existing Village Zone as a potential development site and predicts a yield of some 35 lots. Given that it has sat as a latent site for a considerable period now, it should not preclude this Planning Proposal from proceeding. In any event, if "Heaps Land" was to be developed, it is considered that the land consumption rates in the period 2009 to 2016 are strong enough to justify development of the subject land and "Heaps Land" at the same time, without fear of an oversupply.

### 1.3 LOCATION OF SUBJECT LAND

The subject land is at 61 Forest Reefs Road and lies on the south western fringe of the Millthorpe village (refer below and to Figure 1).



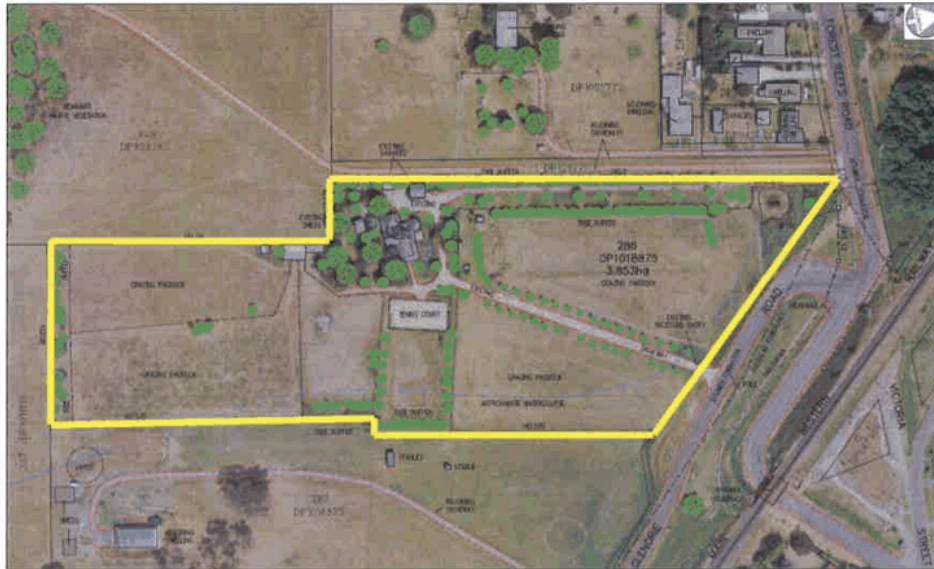
The Real Property description of the subject land is Lot 286 DP 1018875, Town of Millthorpe, Parish of Graham and County of Bathurst.

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## 1.4 SITE DESCRIPTION

### a) Configuration

The subject land has a total area of 3.853 hectares (refer Figure 2).



The street address of the land is Forest Reefs Road but the front boundary is essentially formed by Glenorie Road. From this frontage the land extends to the south for a distance of 300 metres along the eastern boundary and 391 metres along the western boundary. The east to west dimension ranges between some 127 metres in the northern wider section down to approximately 91 metres in the southern section.

### b) Topography

The subject land occupies a midslope and has a northerly aspect. The land within the site falls gradually from an RL of approximately 960m AHD along its northern boundary down to an RL of approximately 950m AHD in the vicinity of Glenorie Road. The landform to the south of the subject land continues to rise to a series of local highpoints up to 990m AHD.

### c) Vegetation

The subject land has undergone a high degree of disturbance in terms of natural vegetation due to a long history of clearing and grazing, typical of the broader district.

The subject land is virtually cleared of native timber. The predominant vegetative cover is pasture. Domestic trees and landscaping have mostly been established by the land owner.

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#### d) Surface Water and Drainage

An intermittent drainage line extends along the eastern edge of the subject land. It is not within a formed bed. It commences just to the south of the subject land and serves only a modest catchment.

Concentrations of water are likely to occur within the drainage line only during major rainfall events.

Moderate to slow drainage occurs on the gently sloping and footslope areas. The land appears well drained with no low-lying areas that pose an obvious constraint to development.

The Strategy suggest that the northern tip of the subject land may be subject to flooding due to poor drainage arrangements associated with the railway underpass on Forest Reefs Road. The Strategy suggests that this issue will be addressed by Council.

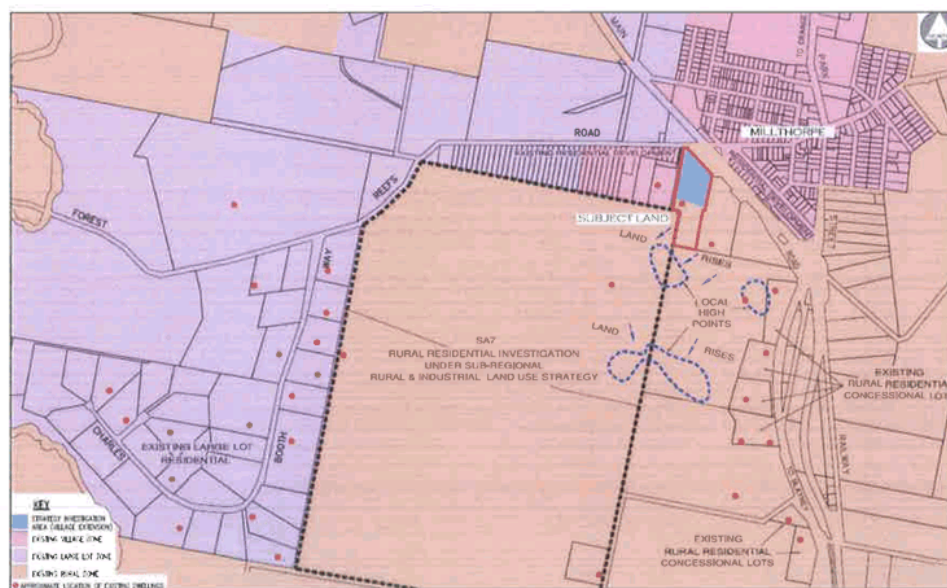
#### e) Land Use

##### *Subject Land*

The land is developed as a residential lifestyle allotment with small scale grazing. A dwelling, ancillary buildings and tennis court are located in a cluster at a midpoint along the western boundary of the property. Landscaping of the building curtilages is well established and contributes positively to the setting.

##### *Surrounding Land*

The surrounding development pattern is depicted below and in Figure 3.



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Development in the vicinity of the subject land includes:

- The Millthorpe village urban area immediately to the north and north east.
- A residential lifestyle lot to the east and then a small rural parcel that was previously used as a vineyard.
- Rural land comprising a dwelling to the south with 4 rural residential properties (concessional lots) in a cluster just to the south east.
- Rural land to the south west which has been identified in the *Blayney Orange Cabonne Sub-Regional Rural and Industrial Land Use Strategy* as an investigation area for future rural residential (or large lot residential) development. An expansive rural residential estate commences just to the west of this land.
- Residential development in the village zone on the adjoining land to the west.
- Large lot residential development to the northwest on the opposite side of Forest Reefs Road.

**f) Roads and Access**

The subject land is serviced by Forest Reefs Road and Glenorie Road, both being bitumen sealed roadways with marked centre-lines; gravel shoulders; and grassed table drains.

Access is provided to the land at two locations. The main driveway entrance from Glenorie Road is towards the north eastern corner; whilst a secondary entrance is available at the north western corner.

**g) Services**

Due to the existing development pattern, urban utilities including sewer, electricity, and telephone are located in the road reserves at the site frontage and are available for extension to the proposed subdivision.

There is no formal stormwater drainage system that services the site. Stormwater from the site is either captured on site for water supply purposes, or returned to the catchment via natural channels, roadside drainage lines and culverts.

**1.5 DEVELOPMENT CONCEPT**

A conceptual development plan has been prepared and is attached to this report (refer Figure 4). It should be noted that the conceptual plan is indicative only at this stage and is subject to final assessment and design.

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*Peter Bashe*  
*Planning & Development*

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With reference to the attached Figure 4 the development concept involves a residential subdivision which would see the creation of 19 lots ranging in area from 560m<sup>2</sup> to 1.288 hectares.

The proposed internal road will be constructed in accordance with Council's normal requirements for village residential development. All lots will be connected to the existing village services of town water, reticulated sewerage; electricity; and telecommunications, all of which are readily available from street mains in Glenorie Road.

The concept has been influenced by the following matters:

- The land immediately to the west of the subject land is zoned RU5 Village and is subject to a MLS of 450m<sup>2</sup>. To encourage a simple and clear development pattern, the site of Lots 1 to 11 and 13 to 19 represents a reasonable and logical extension of this existing zone and MLS.
- The site of proposed Lot 12 is effectively an isolated parcel that would be created as a result of this proposal. It is acknowledged that the extension of this RU5 Zone and MLS of 450m<sup>2</sup> onto this land would be undesirable because it would enable the village to sprawl further to the south. To address this, it is proposed that:
  - Lot 12 be zoned RU5; and
  - A defined dwelling envelope be set in a location that has a similar contour to the dwelling on the neighbouring property to the east; and
  - A MLS of 1.25 hectares be applied so that Lot 12 cannot be subdivided further.
- The proposed larger lots (being Lots 11, 12 and 13) along the southern fringe of the site will reduce dwelling density and form a gradual transition between the village fringe and the rural land to the south (which itself may eventually be developed for Large Lot Residential pursuant to the BCO Strategy).

## 2.0 OBJECTIVES OR INTENDED OUTCOMES

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The objectives or intended outcomes of this Planning Proposal are:

- To rezone the subject land from RU1 Primary Production to RU5 Village.
- To amend the current MLS to reflect the proposed subdivision pattern depicted in the development concept in Figure 4.

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### 3.0 EXPLANATION OF PROVISIONS

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The objectives or intended outcomes of this Planning Proposal would be achieved by:

- Amending the *Blayney Local Environmental Plan 2012 Land Zoning Map (Sheet LZN\_004A)* to rezone Lot 286 DP 1018875 to R5 Large Lot Residential. The existing and proposed zones are depicted in the attached Figure 5.
- Amending the *Blayney Local Environmental Plan 2012 Lot Size Map (Sheet LSZ\_004A)* to permit a MLS of 450m<sup>2</sup> for that part of the site relating to proposed Lots 1 to 11 and Lots 13 to 19; and to permit a MLS of 1.25 hectares for that part of the site relating to proposed Lot 12. The existing and proposed MLS is depicted in the attached Figure 6.

### 4.0 JUSTIFICATION

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#### 4.1 NEED FOR THE PLANNING PROPOSAL

**a) Is the planning proposal a result of any strategic study or report?**

The Planning Proposal is not the result of any strategic study or report.

**b) Is the planning proposal the best means of achieving the objectives or intended outcomes, or is there a better way?**

An amendment to the Blayney LEP 2012 Land Zoning Map and Minimum Lot Size Map as they apply to the subject land is the best means of achieving the objectives or intended outcomes.

**c) Is there a net community benefit?**

On balance, it is expected that a net community benefit would be gained from the Planning Proposal. In this regard:

- The proposal will result in an increase in the number of residential lots and therefore enhance the supply and diversity of such land at Millthorpe.
- The provision of residential land in suitable locations is considered to be for the public benefit. In this regard, the proposal would increase the number of lots and choice in an area that offers desirable residential amenity.
- Proper utilisation of public infrastructure is considered to be for the public benefit. In this regard, the ability to create the full number of lots depicted in the development concept will result in a more efficient use of future roads and utility services that are required to serve the development.

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- The provision of services and infrastructure to serve the development will be borne by the developer and without additional costs or burden upon the community.
- The proposal has the potential to bring indirect economic benefit by providing for additional permanent population in close proximity to a growing rural town.
- The proposal is unlikely to impact upon travel distances given that it will continue residential development on the fringe of a growing rural town. The site integrates with the existing transport routes that serve the area.
- There are no known significant government infrastructure investments in the immediate area that would be affected by this proposal.
- The subject land has not been identified as having any significant environmental or biodiversity values.

#### 4.2 RELATIONSHIP TO STRATEGIC PLANNING FRAMEWORK

**a) Is the planning proposal consistent with the objectives and actions contained within the applicable regional or sub-regional strategy?**

The proposal is not inconsistent with the *Blayney Cabonne Orange Sub-Regional Rural and Industrial Land Use Strategy* (BCO Strategy).

The BCO Strategy is only relevant to the extent that it identifies the land immediately adjacent to the south west of the subject land as an investigation area for future rural (or large lot) residential development (reference SA7).

The development concept outlined in this Planning Proposal would be compatible with this strategic intent, particularly as the proposed larger lots (Lots 11, 12 and 13) would create a gradual transition between the smaller lots attributed to typical village development and the larger lots attributed to typical rural residential development.

**b) Is the planning proposal consistent with the local Council's Community Strategic Plan or other local strategic plan?**

The Blayney Settlement Strategy – Town of Millthorpe (the Strategy) is applicable.

The Strategy matters that are particularly relevant to this Planning Proposal are considered below.

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*Peter Bacha*  
*Planning & Development*

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**Strategy Matter 4.2 Regional Location – Proximity to Major Centres**

A positive outcome for residents of Millthorpe is accessibility to higher level centres that offer more choice in retail. Services, facilities and employment. This suggests that Millthorpe has strong potential as a commuter settlement.

The Planning Proposal is consistent with this matter as additional lots for residential development will strengthen Millthorpe's role as a commuter settlement.

**Strategy Matter 4.2 Regional Location – Proximity to Major Centres**

A negative impact is that the proximity to these dominant centres may result in 'escape expenditure' where people spend the majority of their money outside of Millthorpe resulting in limited potential growth of local services and facilities. A lack of local services can make Millthorpe less suitable for those without access to private transport.

The Planning Proposal may assist to address this negative impact. As indicated throughout this report, Millthorpe has experienced a relatively strong take-up of vacant residential land for new dwellings. By providing a range of residential lot sizes in this location, the proposal will enhance the range of housing choices at Millthorpe and strengthen the role and function of the Village.

**Strategy Matter 4.3 Existing Zoning – Land Use Zoning Areas**

This Strategy seeks to define appropriate areas for each land use to ensure sufficient supply of land for the next 10 years with forward planning for the next 30 years (until 2036).

The Planning Proposal is not adverse to this matter. The Strategy has identified the northern half of the subject land as a future investigation area for village extension, subject to growth rates. As indicated later in this report, there is sufficient strength in the growth rates to justify the proposed rezoning.

**Strategy Matter 4.4 Settlement History – Aboriginal Significance**

The growth of Millthorpe should seek to avoid or protect known and newly identified sites of Aboriginal Significance. The only known site near Millthorpe has been clearly identified and protected through an Aboriginal Heritage Study and will be isolated from residential development.

Given the majority of the subject land has been identified in the Strategy as a future village extension area, it is reasonable to assume that the subject land and its surrounds are not sensitive in terms of aboriginal significance.

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*Peter Brada*  
Planning & Development

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**Strategy Matter 4.5 Settlement Pattern – Subdivision Pattern**

Any new road and subdivision patterns should utilise and integrate with the existing grid pattern (where topography allows) to promote connections, sight-lines and safety and, where possible, avoid cul-de-sacs and curvilinear road designs.

There are various aspects of the subject land that constrain the ability to achieve the above desired outcomes. In this regard:

- The configuration and size of the subject land is relatively modest and essentially dictates that the layout can only adopt a central road to service the new lots.
- The modest configuration of the land also dictates that the central road would need to terminate in a cul-de-sac because there is insufficient area within the site to turn the road back out to Glenorie Road. In any event, the proposed cul-de-sac is considered acceptable in the circumstances because it is relatively short and would serve only a small number of lots.
- The surrounding road network (formed by Forest Reefs Road and Glenorie Road) is not really reflective of a grid pattern. In this context, there is less compulsion for the new road to reinforce a grid pattern.

It is noted that the Strategy encourages development of the subject land to provide a link to the existing Village Zone that adjoins to the west. It is requested that Council not insist on this connection due to the following:

- The subject land will only achieve a relatively modest lot yield and the imposition of a link road to serve adjoining land to the west may compromise this yield.
- The development potential of the existing Village zone to the west appears somewhat constrained due to the following:
  - The cadastral pattern is very fragmented and the location of existing dwellings and improvements will be difficult to integrate into a future subdivision pattern.
  - The co-ordination of an efficient subdivision pattern over this tract of land appears difficult as multiple owners would need to co-operate in terms of lot layout; provision of services and access.

In this context it would be difficult to require the require the development concept for this Planning Proposal to make provision for a road link to serve other land that does not demonstrate clear development potential due to the above factors.

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*Peter Basba*  
*Planning & Development*

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seeks to provide a sensible number of additional residential allotments to cater for some of the project population growth. Based on the projected population growth figures and adopting the average household size, this proposal for some 18 vacant residential lots, could not be described as creating an oversupply.

**Strategy Matter 4.9 Demographics**

- **Professionals** – Professionals make up the largest number of employed people in Millthorpe (19.8%). This may be reflective of Millthorpe as a dormitory suburb for Orange, Bathurst and Blayney professional employment. This is expected to be maintained or increase in the future.
- **Mining** – There has been a growth in number of people involved in the mining industry and this would be expected to be maintained or increase with the development of Cadia East. There may be potential to attract additional workers in this area subject to affordability of housing.
- **Housing Needs** – There are also a large number of people employed in trades, labour and clerical work. This may suggest a continued need for affordable housing alternatives and rental properties, particularly for transient workers.

The Planning Proposal responds to these matters as follows:

- As mentioned previously, the Planning Proposal will increase residential opportunities at Millthorpe and therefore reinforce its role as a commuter (or dormitory) suburb as identified by the Strategy.
- Mining sector employment has probably stabilised rather than increased. However, it is a key element of the local economy and is expected to continue to influence the need for a sufficient housing supply. The lots created via this proposal will supplement that supply.
- Generally, an increase in choice and diversity in the residential land supply has the potential to encourage affordable housing options, either via market forces or by making land available for a range of housing forms.

**Strategy Matter 4.9 Demographics**

- **Dwelling Vacancy** – 49 out of 300 dwellings (16.3%) may have been vacant at the 2006 Census which may represent over-supply of housing, low take up of existing housing stock, or a high proportion of holiday homes (weekenders). Vacant houses may provide the opportunity for take up as the population grows.
- **Housing Choice** – Millthorpe's housing stock is dominated by separate dwellings and there is only a limited range of housing choices in higher density alternatives. These may need to increase to meet the demands of an ageing population and a lower household occupancy rate and provide increased housing choice. A high percentage of single detached dwellings also consume a higher area of land than medium density alternatives.

The Planning Proposal responds to these matters as outlined below:

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*Peter Basba*  
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- Whilst vacant dwellings may exist throughout Millthorpe due to various reasons, there is clear evidence that demand for new housing remains relatively strong. As indicated in the attached Figure 7, there were 48 vacant residential lots in 2009. As at December 2016, the number of vacant residential lots has reduced to 12. A new dwelling has been constructed on each of the 36 lots that have been consumed in this period. It is interesting to note that the Strategy expected 32 of these 48 lots to be developed over the next 30 years (i.e. the period 2006 to 2036). Such is the strength of demand, that in fact 36 lots have been developed in 7 years (i.e. the period 2009 to 2016). In this context, the Village extension described in this Planning Proposal is well justified.
- The Strategy recognises the dominance of separate (detached) dwellings as the primary housing supply for Millthorpe. This Planning Proposal is likely to continue this pattern, although the proposed range of lot sizes creates the potential for some lots to accommodate medium density development particularly in the form of dual occupancies or as multi-dwelling housing.

#### Strategy Matter 4.9 Demographics

**Household Size** – the average household size in Millthorpe was 2.6 people per household which is the same as Blayney Shire and Australia. However, it is estimated that there will be an increase in lone person households and a reduction in average household size in the future (unless housing costs rise substantially) and this will create an additional demand for dwellings.

The Planning Proposal responds to this matter in the sense that it will make additional residential land available to accommodate the expected increase in demand for dwellings caused by the projected reduction in the number of persons per household.

#### Strategy Matter 4.9 Demographics

**Family Characteristics** – The increase in families with children in Millthorpe is likely to result in a demand for additional services and infrastructure for families and children including health, education, open space and recreation, and entertainment. The attractions to Millthorpe may partly be as a result of its strong public school. The reduced level of families without children suggests that Millthorpe is favoured as a location to start a family. However, Millthorpe will need to continue to attract new couples to the area.

The Planning Proposal responds to this matter in the sense that it will provide additional residential land to cater for demand from young families seeking to become established in Millthorpe. The Strategy suggests that Millthorpe will need to continue to attract new couples to the area. It is suggested that the availability and choice of suitable residential land will assist in this regard.

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*Peter Basba*  
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#### Strategy Matter 4.9 Demographics

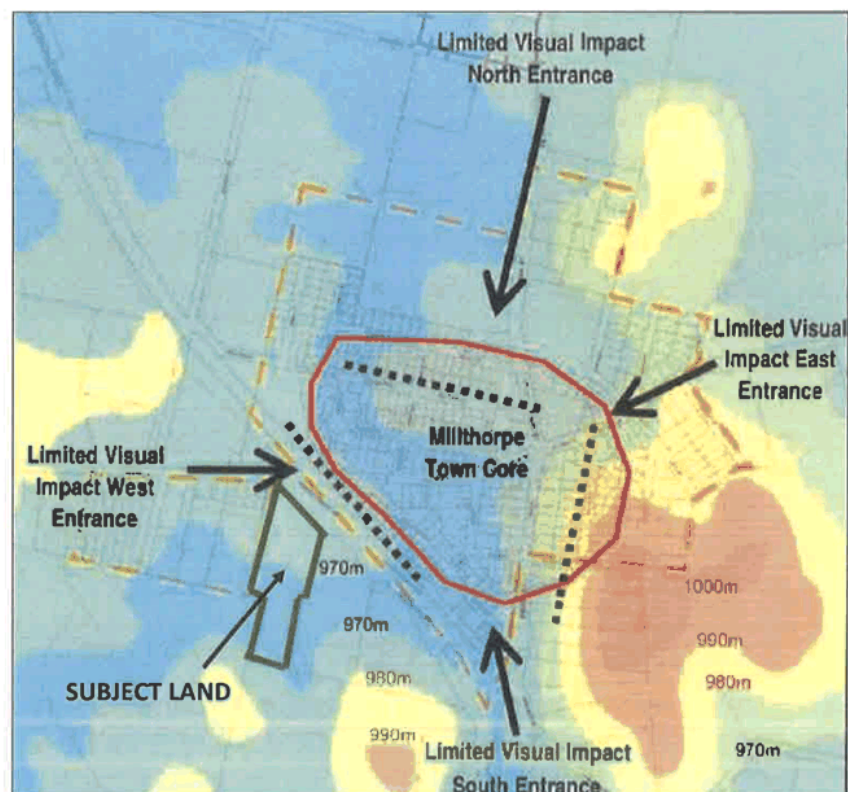
**Dwelling Ownership** – The higher levels of housing ownership/purchase in Millthorpe compared to the Australian average and lower rental levels may show a stronger economic commitment to Millthorpe but it may also need to be reviewed to ensure there is sufficient rental accommodation to cater for less permanent needs and lower socio-economic groups.

Given that Millthorpe displays a higher level of housing ownership/purchase than the Australian average, it is important that sufficient land is available to respond to this demand. The Planning Proposal is consistent with this matter in the sense that it will increase residential land supply for those seeking to commit to Millthorpe as their permanent place of residence.

#### Strategy Matter 4.10 Natural Environment – Topography and Views

**Scenic/Heritage Protection** – Whilst the existing Village Zone development (and limited large lot residential) has minimal impact from the entrances to Millthorpe, the potential growth area to the north of Millthorpe may increase in visibility and impact on the character of Millthorpe and needs to be carefully managed.

This matter specifically refers to the potential northern growth area. The subject land is not within this area, it is to the south west of the village. However, the relevant principle in this matter is the need to maintain scenic values around the Millthorpe hinterland.



*Peter Bashir  
Planning & Development*



It is submitted that this proposal will maintain Millthorpe's character and scenic values due to the following:

- The subject land does not rise significantly above the village. In fact the above extract map from the Strategy indicates that the subject land sits at a similar contour (blue shading) or lower contour (green shading) to much of the village core.
- The land to the south of the subject land continues to rise to local highpoints. Any future development within the site (including Lots 11, 12 and 13) will sit below these highpoints and therefore not appear prominent in broader views to or from the village.

**Strategy Matter 4.10 Natural Environment – Water Management – Watercourses and Flooding**

- **Flooding** – There is localised flooding at the railway underpass. The capacity of the railway underpass can be increased to convey the 5-year ARI flow and reduce the frequency of flooding within the railway underpass.
- **Drainage Corridors** – Any significant watercourse or drainage corridors should, where possible, be incorporated into open space or reserves to maximise both environmental or water quality outcomes.

The Planning Proposal responds to these matters as follows:

- The land at the very northern tip of the subject land is identified as possible flood prone land due to localised flooding at the railway underpass on Forest Reefs Road. It is suggested that this will not unreasonably constrain the proposal due to the following:
  - The Strategy indicates that Council is considering rectification works to improve flow and reduce the potential for water to back up.
  - It appears that proposed Lot 1 would be the most affected by localised flooding. It is suggested that the rectification works by Council in relation to the railway underpass in conjunction with the setting of an appropriate minimum floor level would address potential flood impacts for this lot. The dam in this lot would be removed, filled and compacted in accordance with the relevant Australian Standard.
- The intermittent watercourse that affects the eastern side of the subject land is identified by the Strategy as a minor watercourse. The watercourse is essentially a minor drainage line and does not have a formed creek bed. It commences just to the south of the subject land and at this location has a relatively small catchment. Subject to engineering design and Controlled Activity Approval from NSW Office of Water, it is proposed to divert this drainage line and incorporate it as part of the inter-allotment drainage system for the subdivision.

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*Peter Barker*  
Planning & Development

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- It is suggested that roof water from new buildings should be collected in rain water tanks for water supply, which will provide an on-site water supply to satisfy BASIX requirements as well as reduce the peak run-off from the site.

**Strategy Matter 4.10 Natural Environment – Land Management – Soils and Contamination**

- **Prime Agricultural Land** - There is no current proposal to expand the Village Zone or 1(c) Zone so there is no conflict with rural land. However, if any extension is required then a review of the agricultural land classification and protection of prime agricultural lands should be required.
- **Sewerage Treatment** – Any subdivision of land that does not have access to a centralised sewage system should require a geotechnical report to confirm that the geology of the soils will support any on-site sewage treatment systems.
- **Contaminated Lands** – Any development of land with known or potential soil contamination is required to address the requirements of SEPP 55 (Remediation of Land) prior to use for another purpose.

The Planning Proposal responds to these matters as follows:

- The proposed village expansion does not involve prime agricultural land. The agricultural value of the subject land is limited due to the following:
  - It is of a modest size with little potential for sustainable agricultural production.
  - Its primary use is for rural residential purposes.
  - It is adjacent to the village and large lot residential development.

It should also be noted that the subject land to the south west is identified in the BCO Strategy as an investigation area for future rural residential (large lot residential) development. This strategic status indicates that Council no longer regards the immediate area as an agricultural resource.

- The subject land is able to be serviced by existing sewage reticulation in Glenorie Road. As such, on-site sewage treatment will not be required.
- In terms of potential contamination, the subject land does not appear to have been used for any of the purposes listed in Table 1 of *Managing Land Contamination Planning Guidelines SEPP 55 – Remediation of Land*. In any event, should this Planning Proposal succeed at the Gateway, it is recommended that a preliminary site investigation be undertaken in accordance with the contaminated land management planning guidelines *State Environmental Planning Policy No. 55 (SEPP 55)* to determine the potential for soil contamination of the subject land.

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*Peter Basba*  
*Planning & Development*

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**Strategy Matter 4.10 Natural Environment – Biodiversity and Vegetation – Native Vegetation**

There is a lack of any significant remnant or native vegetation in or around Millthorpe (particularly since the area was once known for thicker vegetation). Attempts should be made, where possible, to plant native vegetation and enhance ecological corridors, particularly along the key watercourses. There should be no net loss of native vegetation from development.

The Planning Proposal is consistent with this matter because the subject land does not comprise significant native vegetation.

Further, the subject land is not within an ecological corridor and therefore does not require revegetation to reinstate ecological values.

**Strategy Matter 4.11 Access, Transport and Parking – Road Hierarchy**

A clear road hierarchy should be maintained in Millthorpe. The road hierarchy (and the differences between streets) should be reinforced by the design of the street, the adjacent built form, and the landscape treatment along the street. The clear road hierarchy should be maintained by any future subdivision and road patterns.

The Planning Proposal is consistent with this matter because it does not erode the primacy of Forest Reefs Road as a key east-west road that serves large lot residential to the west and also connects Millthorpe to Orange.

The new road to serve the proposed lots will be constructed in accordance with Council's normal requirements for village residential development.

Edge treatment and landscaping can be provided in a manner that is characteristic of this village fringe setting.

**Strategy Matter 4.12 Utilities and Infrastructure – Potable Water Supply**

**Secure Yield of Water** – There are no known constraints to the growth of Millthorpe from the provision of potable water by CTW (Central Tablelands Water). The current projections for growth that can be serviced by CTW roughly match the projected growth rates in this Strategy.

The Strategy confirms that Millthorpe benefits from a town water supply that can accommodate projected rates of growth.

The town water main is located at the front of the site and can be extended to serve each of the proposed lots. As such, this proposal is not constrained in terms of achieving a satisfactory potable water supply.

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*Peter Basba*  
*Planning & Development*

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**Strategy Matter 4.12 Utilities and Infrastructure – Stormwater and Drainage**

Stormwater issues exist around the railway underpass to the west of Millthorpe. There are also drainage issues along Park Street with overtopping of the road in heavy rainfall events. These issues are currently being addressed by Council. Stormwater and drainage may limit the development of some areas, particularly to the north of Millthorpe. Any future growth on the periphery of Millthorpe should ensure that stormwater does not affect water catchment areas to the east of Millthorpe.

The only aspect of the above matter that is relevant to this Planning Proposal is the drainage issues associated with the railway underpass.

The Strategy indicates that Council is addressing this issue. As such, this proposal is not unreasonably constrained in this regard.

**Strategy Matter 4.12 Utilities and Infrastructure – Sewerage**

**Sewerage Supply/Demand** – There is a reasonable likelihood that the Blayney – Millthorpe sewerage system will reach capacity prior to 2036 and will need to be augmented, particularly if both Blayney and Millthorpe grow at the rates that are projected in this Strategy. This should be reviewed at each Census Date and considered as part of Council's Strategic Sewer Plan.

In consideration of the above matter, the existing sewer reticulation exists at the front of the site and can be extended to serve each of the proposed lots.

It is submitted that this proposal will not create undue pressure on the existing system, given that it involves only a modest number of lots, and the development is planned to occur at an early stage in the Strategy period and certainly well before 2036.

**Strategy Matter 4.12 Utilities and Infrastructure – Electricity**

**Electricity Supply/Demand** – Council needs to consult with Country Energy (now Essential Energy) to understand any particular supply and demand challenges facing the network in Millthorpe and proposals to maintain and extend the existing network.

In consideration of the above matter, Essential Energy should be consulted.

However, given its location on the village fringe and the presence of electricity mains serving the area, it is likely that an adequate electricity supply will be available to service the development.

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*Peter Basda*  
*Planning & Development*

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**Strategy Matter 4.12 Utilities and Infrastructure – Telecommunications**

**Telecommunication Access** – As Millthorpe has been identified as a 'town' and has potential for significant population growth, it is important to ensure that telecommunications access is able to cater for this growth and meet local needs.

In consideration of the above matter, it is noted that the Strategy states that there are no known constraints to growth of the wired network in Millthorpe and that Millthorpe also has the capacity to receive broadband internet services on the existing land line network. As such, this proposal is not constrained in terms of achieving satisfactory telecommunication services.

**Strategy Matter 4.12 Utilities and Infrastructure – Gas**

**Gas Supply/Demand** – With the addition of 100 to 200 new dwellings and potential new businesses and industries there may be need to be expansion to the existing system. AGL should ensure that the cost of provision of extended gas supply networks is entirely met by the developer of new allotments.

In consideration of the above matter, it is noted that the Strategy states that there are no known supply issues for the increased demand for natural gas in Millthorpe. As such the proposal is not constrained in this regard. It is acknowledged that the provision of gas (and indeed other utilities) is a developer cost and not one that should burden the community.

**Strategy Matter 4.12 Utilities and Infrastructure – Waste Management**

There are no known constraints to development from waste services. Millthorpe may have the potential as a pilot program for improved waste management (including green waste services) as it is a town with a strong character/identity and environmental awareness and is growing at a higher rate than most of the Shire.

This Strategy position is noted. The proposal will integrate with the waste management scheme that serves the broader village.

**Strategy Matter 4.20 Urban Residential Land Uses (Village Zone) – Dwelling Types**

The majority of dwellings in Millthorpe are detached larger dwellings in a low density subdivision. The attraction of living in a rural village is rarely to live in higher density dwellings. However, with a larger older population there may be a future demand for small or more compact housing that is lower in maintenance on smaller lots and there is currently low choice housing types in Millthorpe to meet this future need.

As mentioned earlier, the Strategy recognises the dominance of separate (detached) dwellings as the primary housing supply for Millthorpe.

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*Peter Borda*  
*Planning & Development*

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The proposed lots in this Planning Proposal are likely to continue this pattern, although the range of lot sizes creates the potential for some lots to accommodate medium density development particularly in the form of dual occupancies or as multi-dwelling housing.

**Strategy Matter 4.20 Urban Residential Land Uses (Village Zone) – Development Controls**

There is a need to review the existing development controls for Millthorpe to ensure appropriate development outcomes in the heritage conservation area and improved design outcomes.

The Planning Proposal does not conflict this matter. Given that the subject land is within the Millthorpe heritage conservation area it is important that future development within each of the proposed lots is sensitive in terms of maintaining heritage character and values and reflective of appropriate urban design.

**Strategy Matter 4.20 Urban Residential Land Uses (Village Zone) – Avoiding Urban Sprawl**

As residential land uses are the greatest consumer of land, where possible, infill development of existing vacant land or lots within the existing Village zone should occur prior to release of new land. However, there is only a limited supply of existing small lots in the Village Zone so some expansion is likely to be required.

The Planning Proposal is entirely consistent with this matter due to the following:

- The take up of existing village lots as infill residential development has been strong. As indicated in the attached Figure 7, there were 48 vacant residential lots in 2009. As at December 2016, the number of vacant residential lots has reduced to 12. A new dwelling has been constructed on each of the 36 lots that have been consumed in this period.
- It is interesting to note that the Strategy expected that 32 of these 48 lots would be developed over the next 30 years (i.e. the period 2006 to 2036). Such is the strength of demand, that in fact 36 lots have been developed in 7 years (i.e. the period 2009 to 2016). In this context, expansion of the Village Zone to enable the lots proposed by this PP is well justified.
- The Strategy identifies "Heap's Land" as a potential development site and predicts a yield of some 35 lots. Given that it has sat as a latent site for a considerable period now, it should not preclude this Planning Proposal from proceeding. In any event, if "Heaps Land" was to be developed, it is considered that the land consumption rates in the period 2009 to 2016 are strong enough to justify development of the subject land and "Heaps Land" at the same time.

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*Peter Basba*  
*Planning & Development*

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- As explained earlier in this report, the development concept has been designed so as to reduce any sense of urban sprawl. In this regard, the smaller lots in the concept coincide with the adjoining RU5 Zone and MLS to the west. Where the land projects further south of this pattern, a larger lot size has been adopted and only 2 additional dwellings are possible.

**c) Is the planning proposal consistent with applicable State Environmental Planning Policies?**

The consistency or otherwise of the planning proposal with the applicable State Environmental Planning Policies is provided in Annexure B.

*State Environmental Planning Policy (Rural Lands) 2008* is particularly relevant and sets Rural Planning Principles to guide the proper management, development and protection of rural lands for the purpose of promoting the social, economic and environmental welfare of the State.

The Rural Planning Principles are outlined in Part 2, Clause 7 of the Rural Lands SEPP and are considered below.

- (a) the promotion and protection of opportunities for current and potential productive and sustainable economic activities in rural areas,
- (b) recognition of the importance of rural lands and agriculture and the changing nature of agriculture and of trends, demands and issues in agriculture in the area, region or State,
- (c) recognition of the significance of rural land uses to the State and rural communities, including the social and economic benefits of rural land use and development,

The proposal is not adverse these Principles because the subject land no longer represent an agricultural resource due to the following:

- It is of a modest size with little potential for sustainable agricultural production.
- Its primary use is for rural residential purposes.
- It is adjacent to the village and large lot residential development.
- The northern half of the subject land is included in the Strategy as an investigation area for the extension of the village.

- (d) in planning for rural lands, to balance the social, economic and environmental interests of the community,

The proposal is not adverse this Principle. As a Strategy investigation area for Village extension, the land is recognised as a resource that would benefit the growth and development of the Millthorpe community.

*Peter Basza*  
*Planning & Development*

(e) the identification and protection of natural resources, having regard to maintaining biodiversity, the protection of native vegetation, the importance of water resources and avoiding constrained land,

There are no aspects of the Planning Proposal that conflict with this Principle. The subject land is not constrained in terms of biodiversity; native vegetation; water resources; or other physical or natural constraints.

(f) the provision of opportunities for rural lifestyle, settlement and housing that contribute to the social and economic welfare of rural communities,

The proposal is consistent with this Principle. As a Strategy investigation area for Village extension, the land is recognised as a resource that would benefit the growth and development of the Millthorpe community by increasing village residential opportunities.

(g) the consideration of impacts on services and infrastructure and appropriate location when providing for rural housing,

This Principle is not entirely relevant as the proposal does not seek to provide rural housing. In any event, the required services and infrastructure are able to be provided without undue burden upon the community.

(h) ensuring consistency with any applicable regional strategy of the Department of Planning or any applicable local strategy endorsed by the Director-General.

In accordance with this Principle, this Planning Proposal demonstrates consistency with:

- The *Blayney Settlement Strategy – Town of Millthorpe* (applicable Local Strategy); and
- The *Blayney Cabonne Orange Sub-Regional Rural and Industrial Land Use Strategy*.

**d) Is the planning proposal consistent with applicable Ministerial Directions?**

Section 117 of the Environmental Planning and Assessment Act, 1979 allows the Minister to give directions to Councils regarding the principles, aims, objectives or policies to be achieved or given effect to in the preparation of draft Local Environmental Plans.

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*Peter Borda*  
*Planning & Development*

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A Planning Proposal needs to be consistent with the requirements of the Direction but can be inconsistent if justified using the criteria stipulated.

The consistency or otherwise of the planning proposal with the Ministerial Directions is provided in Annexure C.

#### **4.3 ENVIRONMENTAL, SOCIAL AND ECONOMIC IMPACT**

**a) Is there any likelihood that critical habitat or threatened species, populations or ecological communities, or their habitats, will be adversely affected as a result of the proposal?**

The natural state of the site and surrounding area has been highly modified due to previous clearing and by the village fringe land use pattern.

The subject land is virtually devoid of native timber. While an ecological assessment has not been undertaken, the potential for the site to attract less common native species is considered minimal. Habitat potential is low and the site does not have realistic potential to re-establish easily into providing habitats of value.

- Accordingly the Planning Proposal is unlikely to have a significant effect upon threatened species, populations, ecological communities or their habitats.

**b) Are there any other likely environmental effects as a result of the planning proposal and how are they proposed to be managed?**

The potential impacts of the Planning Proposal are considered below.

**(i) Traffic Impacts**

The proposal is considered to be satisfactory in terms of traffic impacts due to the following:

- The proposed new road will be constructed in accordance with Council's normal requirements to ensure that the capacity of the road network can accommodate traffic associated with long term residential development of the site.
- The new intersection is reasonably separated from the Glenorie Road and Forest Reefs Road intersection so as to not cause traffic conflict.
- The additional traffic generated by the proposed subdivision is expected to integrate with the existing road network without unreasonable impact.

The site is within reasonable proximity of the Millthorpe town centre to also be accessible via walking and cycling.

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*Peter Baska*  
*Planning & Development*

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**(ii) Noise Impact**

By its very nature (residential land use) there are no aspects pertaining to the proposal that would generate unreasonable noise impacts.

**(iii) Soil Stability**

There are no aspects pertaining to the site to suggest that it would not be suitable for residential development for reasons pertaining to soil stability.

**(iv) Water Quality**

Potential impacts on water quality relate to the following:

- Erosion and sedimentation as a result of earthworks during the construction phases of the development.
- An increase in impervious surfaces as a result of buildings and roadways will increase the volume and velocity of run-off from the site.

The proposal is unlikely to generate unreasonable impacts on water quality due to the following:

**Soil Erosion**

An erosion and sediment control plan should be prepared and should provide for:

- Retention of existing vegetation around disturbed areas where practical to reduce mass movement of sediment.
- Staging of excavation and earthworks where practical to minimise the extent of ground disturbance.
- The retention of as much topsoil as possible for reuse as landscaping material.
- The use and installation of sediment traps, bunds, banks and drains in suitable locations during all stages of the development.
- The prompt revegetation or stabilisation of all disturbed areas.
- Re-sow exposed areas with appropriate grass species as soon as practical after construction works have been completed.
- The erosion and sediment control devices installed at the construction phase should remain in place until revegetation of the exposed areas has occurred.

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*Peter Borda*  
*Planning & Development*

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Provided that the above measures are implemented it is not expected that there will be a significant reduction in water quality on the site or downstream from the site.

#### ***Stormwater Management***

Stormwater drainage from future buildings and the roadways should be provided in a manner that returns flows to the catchment at non erosive velocities. In this regard the following measures may mitigate potential impacts:

- Implement appropriate erosion and sediment control devices.
- Collect roof water in rain water tanks for water supply, which will provide an on-site water supply to satisfy BASIX requirements as well as reduce the peak run-off from the site.
- Provide appropriate drains from roads, driveway and paved areas with adequate scour protection measures as required.

#### **(v) Flooding**

The Strategy suggests that the northern tip of the subject land may be subject to flooding due to poor drainage arrangements associated with the railway underpass on Forest Reefs Road. The Strategy suggests that this issue will be addressed by Council.

#### **(vi) Bushfire hazard**

The subject land is not identified as bushfire prone land.

#### **(vii) Land/Site Contamination**

Should this Planning Proposal succeed at the Gateway, it is recommended that a preliminary site investigation be undertaken in accordance with the contaminated land management planning guidelines *State Environmental Planning Policy No. 55* (SEPP 55) to determine the potential for soil contamination of the subject land.

#### **(viii) Resource Lands**

The proposal would not adversely impact upon resource lands. In this regard:

- The proposal is not within a defined drinking water catchment.
- Due to the current zoning and land use pattern the subject land does not represent an agricultural resource and nor is the proposal likely to conflict with rural land.

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*Peter Borda*  
*Planning & Development*

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**(ix) Heritage**

The subject land is within a heritage conservation area. It does not comprise a listed heritage item.

Schedule 5 of Blayney Local Environmental Plan 2012 lists items of environmental heritage that are to be protected and conserved in accordance with the relevant provisions of the LEP. The LEP mapping indicates that the nearest heritage item in the vicinity of the subject land is essentially one property removed to the west. It is referred to as Item 263, "The Pines" (cottage and avenue of radiate pines) 73 Forest Reefs Road. It is listed as having Local significance.

The identified item does not unreasonably constrain the proposal. The interface and visual relationship between the subject land and the heritage items is diminished by the physical separation (some 100 metres) and intervening development. It is unlikely that the proposal would diminish views to or from heritage item.

In any event, prior to any development involving the item or land in the vicinity of the item, it will be necessary to prepare a Statement of Heritage Impact in accordance with the NSW Heritage Office publication *Statement of Heritage Impact Guidelines* (particularly Table 7 – Relevant HIS Questions).

**(x) Archaeology**

The archaeological value of the site is considered minimal. It has been highly modified for several years from its original state.

In the event that previously unrecorded Aboriginal relics are uncovered during development, work should immediately stop and both the NSW National Parks and Wildlife Service and the Local Aboriginal Land Council be notified.

Given that the subject land has not been identified as a heritage item it is submitted that European archaeology is unlikely to constrain the proposal.

**c) How has the planning proposal adequately addressed any social and economic effects?**

The social and economic benefits of the Planning Proposal are considered to be positive due to the following:

- Encourages additional permanent population via the provision of new appropriately located residential land within the fringe of the Millthorpe urban area.

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*Peter Basha*  
*Planning & Development*

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- Additional population at Millthorpe has the potential to:
  - Generate direct and indirect benefits for the retail, service and employment sectors of Millthorpe.
  - Encourage greater use of existing retail and community services established within the town and also provide for a possible increase in the demand for such services.
- Increases the availability of zoned residential land in close commuting distance to the town centre. It is suitably located to encourage walking and cycling.

#### **4.4 STATE AND COMMONWEALTH INTERESTS**

##### **a) Is there adequate public infrastructure for the Planning Proposal?**

Yes. Town water, reticulated sewer, electricity and telecommunications are available in the area and will be extended to the proposed development in accordance with the requirements of the relevant service authority.

The conceptual subdivision pattern and new road relates effectively to the existing road network. Road infrastructure to serve the development will be provided by the developer.

##### **b) What are the views of State and Commonwealth public authorities consulted in accordance with the gateway determination?**

The view of State and Commonwealth public authorities are not required on the Planning Proposal until after the Gateway determination.

#### **5.0 COMMUNITY CONSULTATION**

The Planning Proposal will be subject to public exhibition and agency consultation as part of the Gateway process. The Gateway determination will specify the community consultation that must be undertaken on the Planning Proposal.

Community consultation would involve:

- An exhibition period of 28 days.
- The community is to be notified of the commencement of the exhibition period via a notice in the local newspaper and on Council's website. The notice will:

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*Peter Basla*  
*Planning & Development*

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- Give a brief description of the objectives or intended outcomes of the planning proposal;
  - Indicate the land affected by the planning proposal;
  - State where and when the planning proposal can be inspected;
  - Provide the name and address for the receipt of submissions; and
  - Indicate the closing date for submissions.
- Written notification to adjoining and surrounding land owners.

During the exhibition period, it is expected that Council would make the following material available for inspection:

- The planning proposal in the form approved for community consultation by the Director General of Planning;
- Any studies (if required) relied upon by the planning proposal.

Electronic copies of relevant exhibition documentation to be made available to the community free of charge. At the conclusion of the notification and public exhibition period Council staff will consider submissions made in respect of the Planning Proposal and prepare a report to Council.

## 6.0 CONCLUSION

This Planning Proposal warrants support due to the following:

- The information presented in Section 4.2(b) demonstrates the consistency of the proposal with the *Blayney Settlement Strategy – Town of Millthorpe* (the Strategy).
- Since 2009, there has been a take up of 36 of the 48 available residential lots within the existing Village Zone. This represents a take-up of 75% of the available vacant land supply. The Strategy suggested that an extension of the Village Zone may be contemplated when 60-70% take-up was experienced. The land consumption rate has surpassed this indicator.
- The inclusion of the southern section of the subject land in the rezoning is justified on the following grounds:
  - Development of this section of the land will not impact on local scenic or landscape values, particularly as it involves only a modest lot yield and any new dwelling would remain at a similar or lower contour compared to existing dwellings on neighbouring properties.
  - The proposed larger lots (being Lots 11, 12 and 13) along the southern fringe of the site will reduce dwelling density and form a gradual transition between the village fringe and the rural land to the south (which itself may eventually be developed for Large Lot Residential pursuant to the BCO Strategy).
  - Notwithstanding its exclusion from the nominated investigation area, it can be demonstrated that inclusion of the southern half of the subject land would satisfy the other relevant considerations under the Strategy.
- The potential environmental impacts of the development can be adequately addressed.

Yours faithfully

**Peter Basha Planning & Development**



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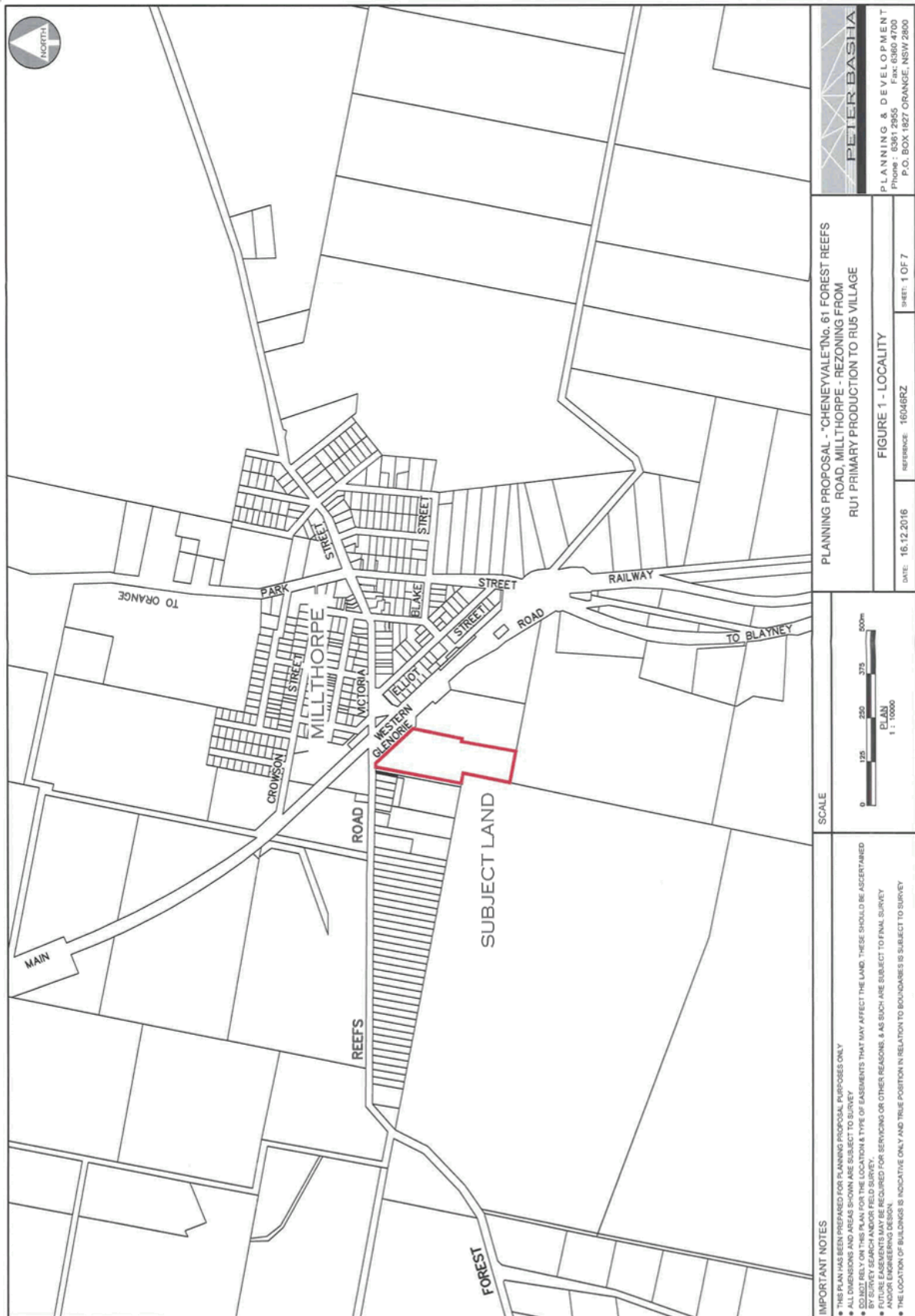
**PETER BASHA**

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*Peter Basha*  
*Planning & Development*

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Annexure A  
*Plan Set*



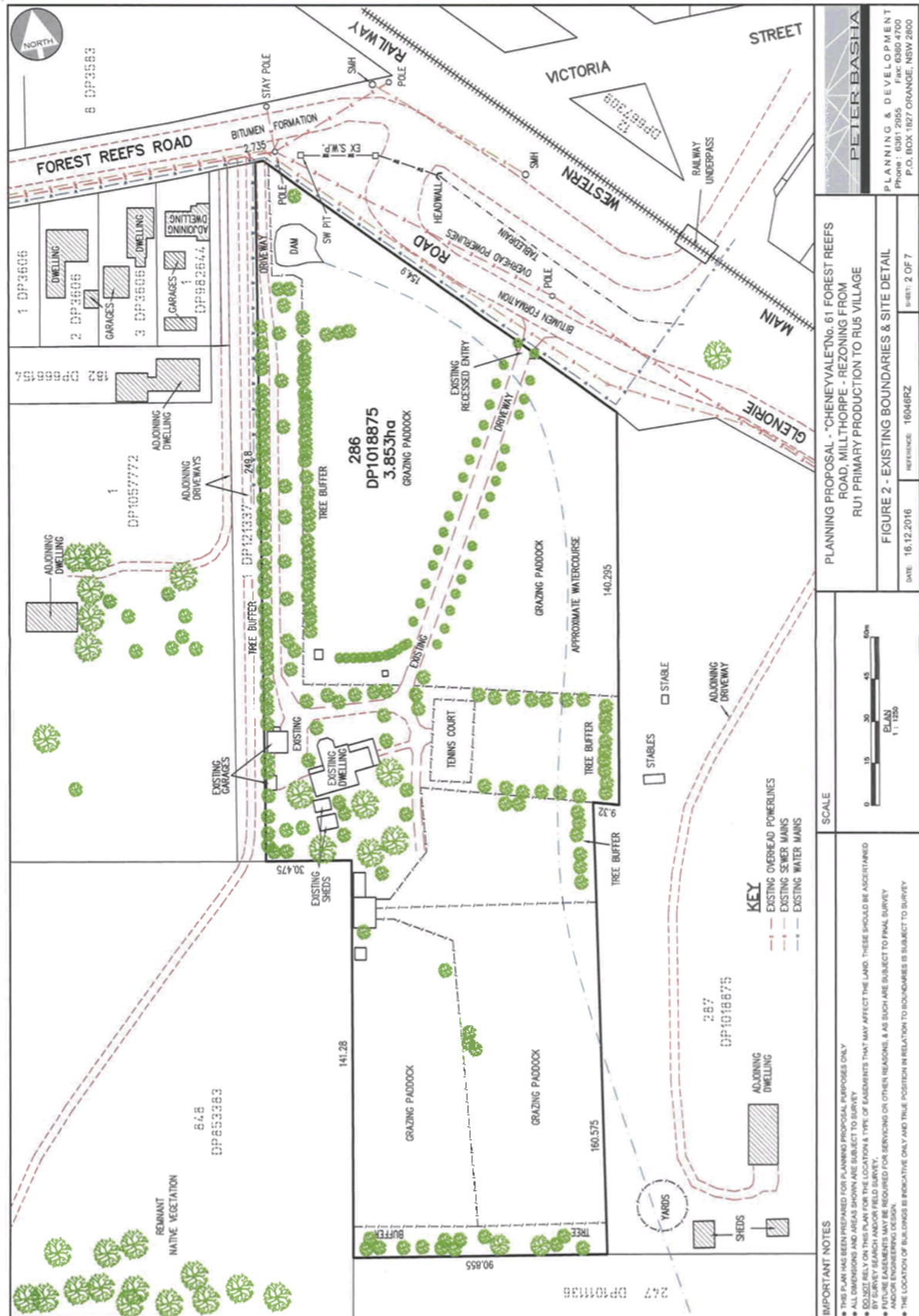




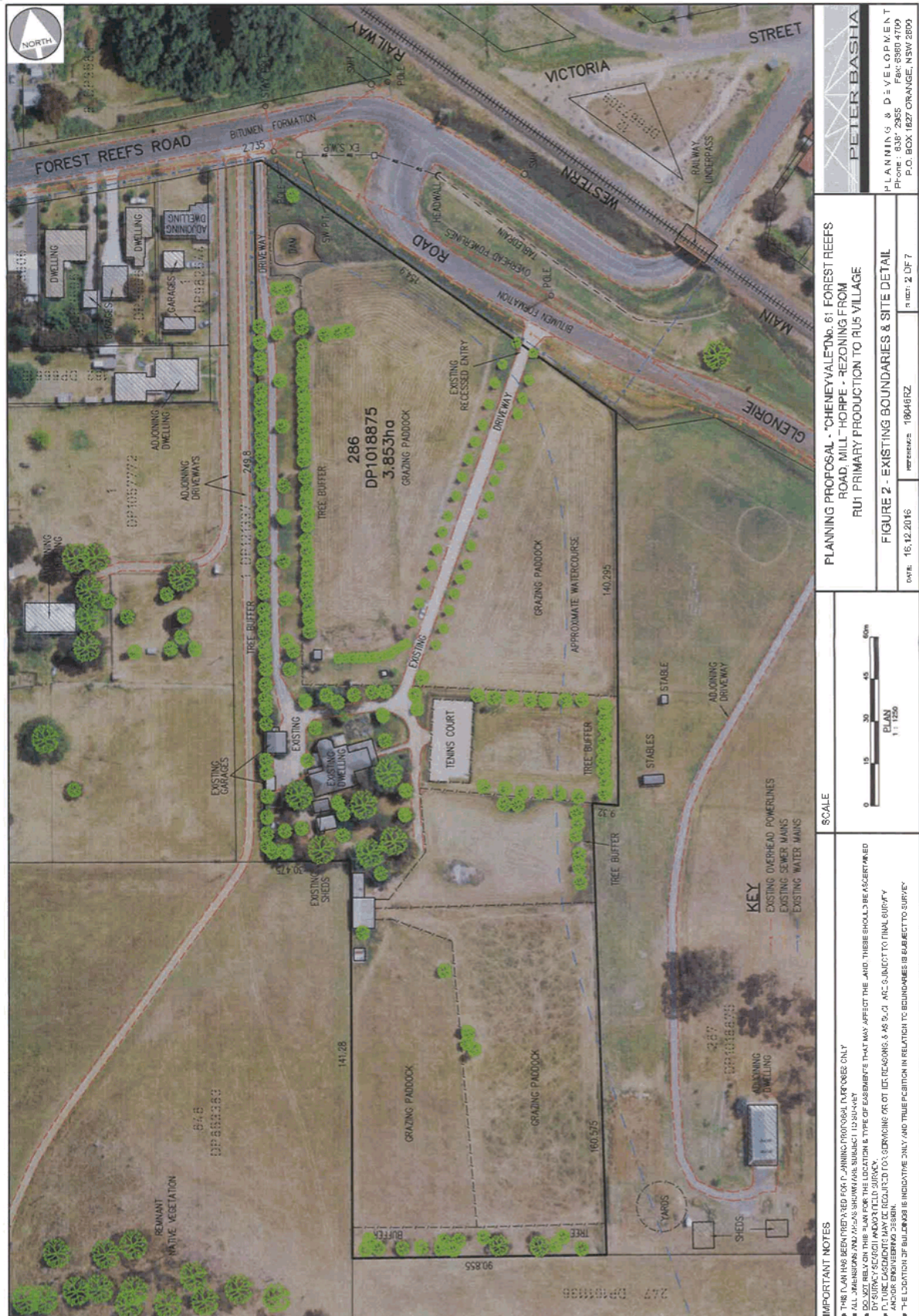
NO: 1 - PLANNING PROPOSAL 61 FOREST REEFS ROAD  
MILLTHORPE

ITEM NO: 14

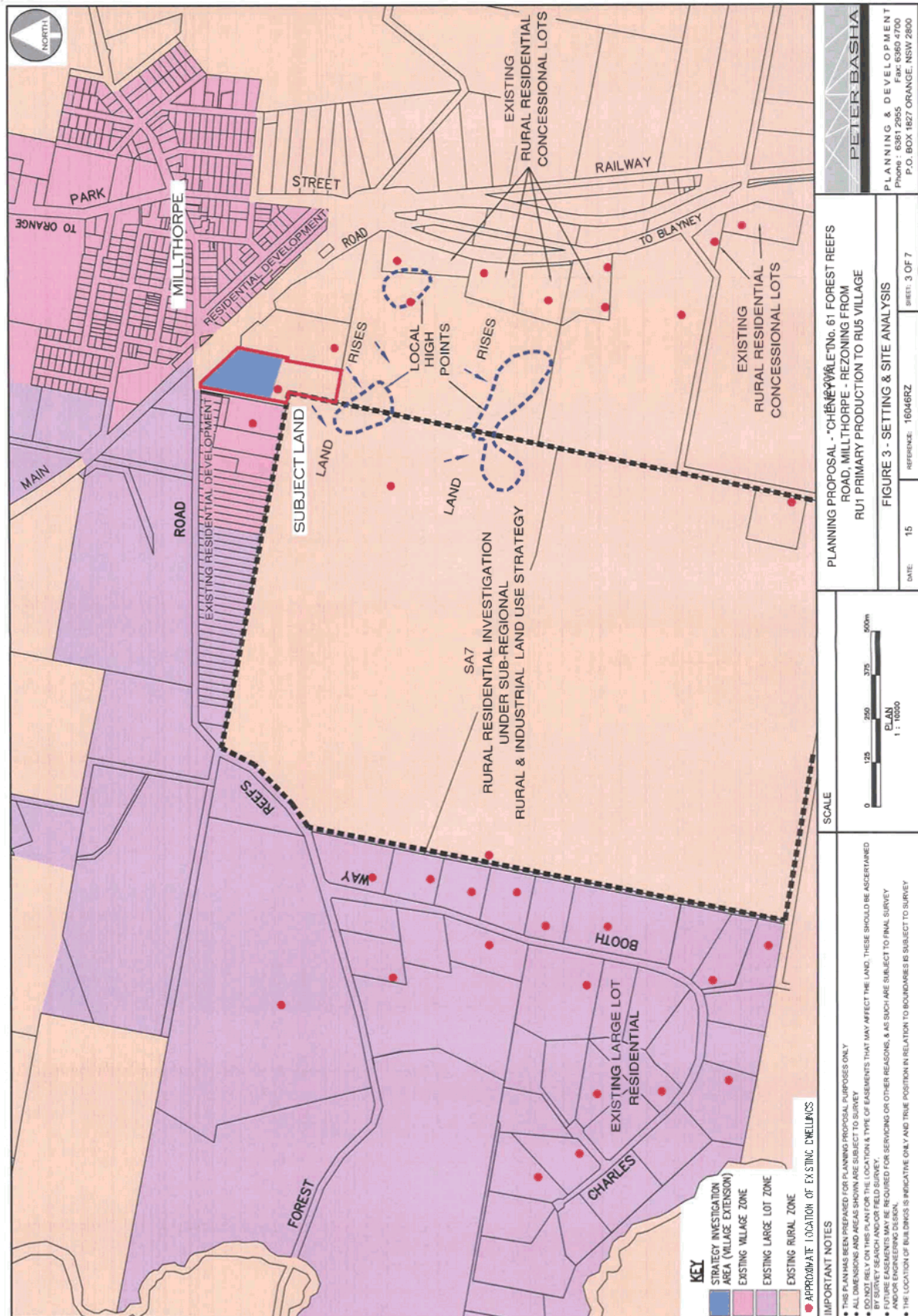


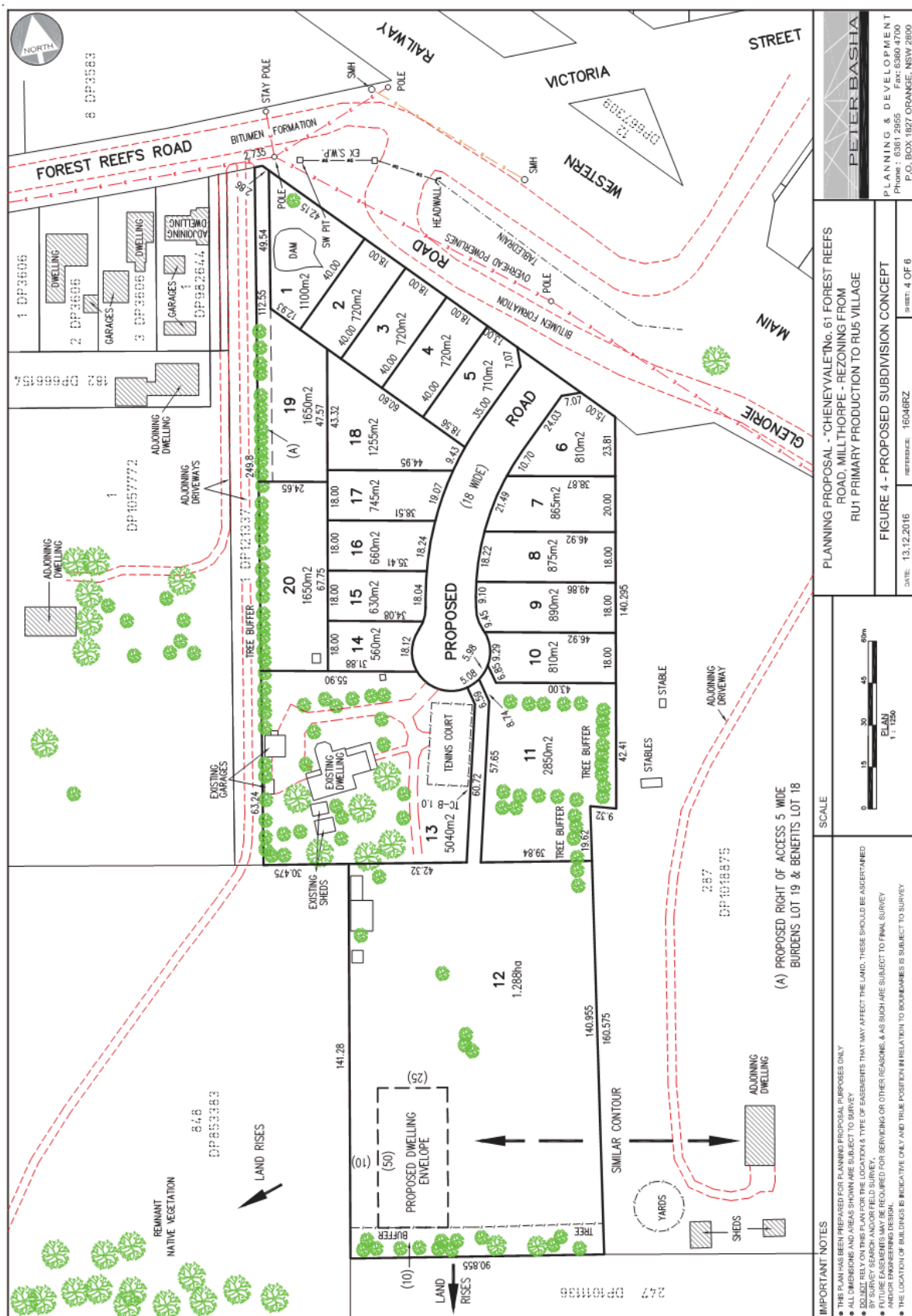








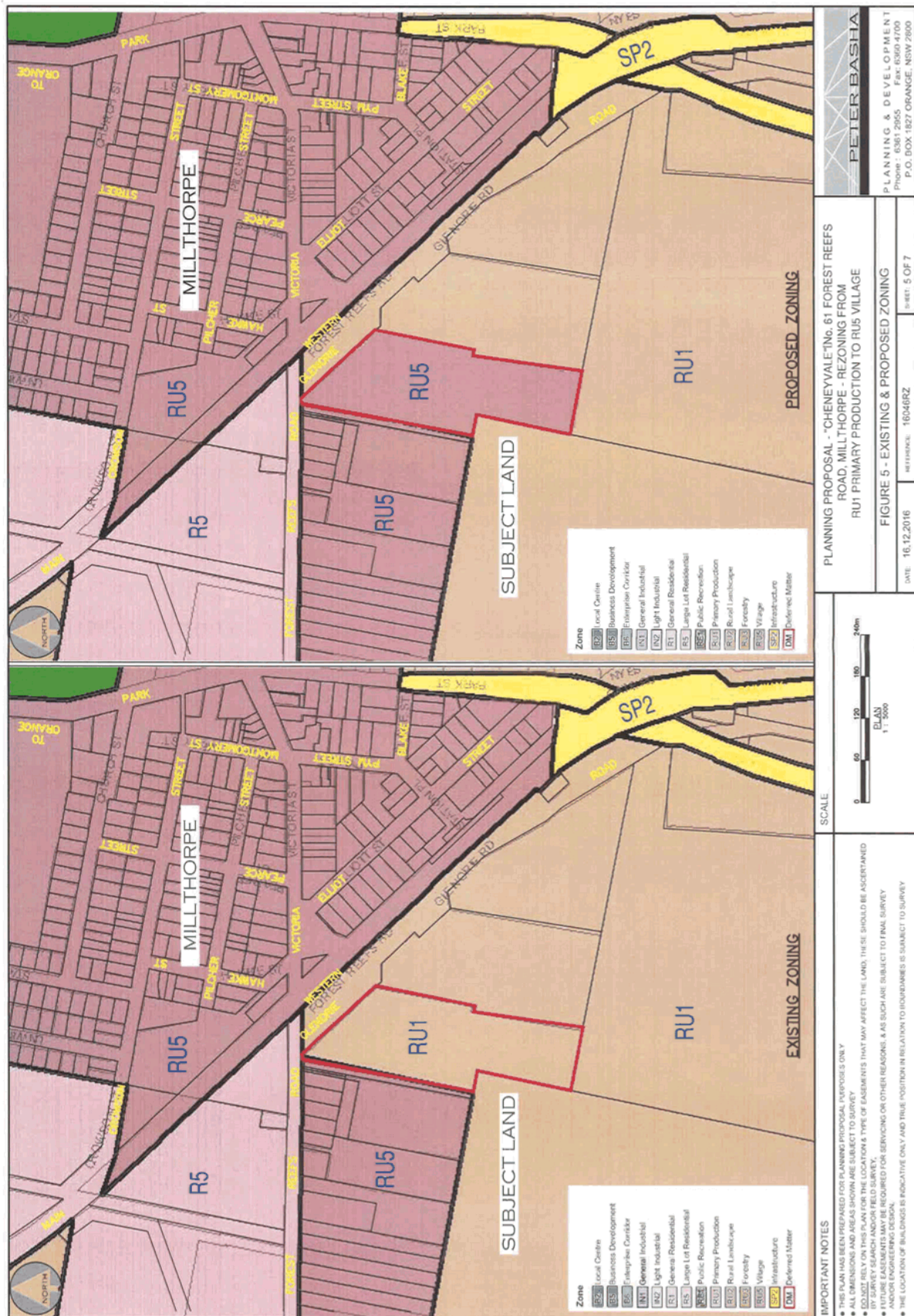




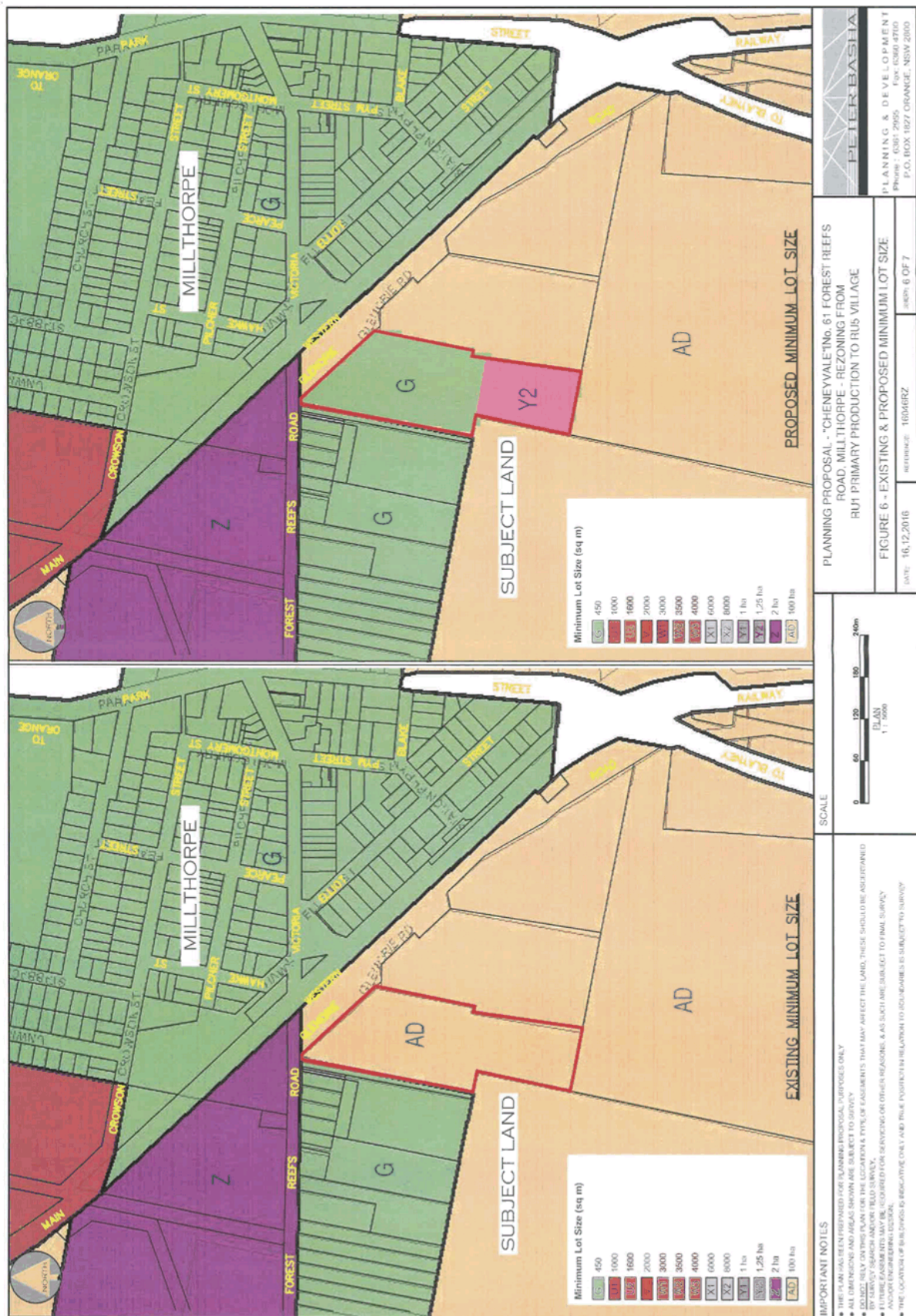














Annexure B

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*State Environmental Planning Policies Schedule of Consideration*



<b>Annexure B</b> <b>Proposed Rezoning 61 Forest Reefs Rd, Millthorpe from RU1 Primary Production to RU5 Village</b> <b>State Environmental Planning Policies - Schedule of Consistency</b>	
<b>SEPP</b>	<b>Relevance/Comment</b>
SEPP No. 1 - Development Standards	Not applicable
SEPP No. 2 - Minimum Standards for Residential Flat Development	Repealed by SEPP No. 20
SEPP No. 3 – Castlereagh Liquid Waste Disposal Depot	Repealed by Infrastructure SEPP
SEPP No.4 - Development without Consent and Miscellaneous Complying Development	Not applicable
SEPP No. 5 - Housing for Older People or People with Disability	Repealed by SEPP (Housing for Seniors or People with a Disability) 2004
SEPP No. 6 - Number of Storeys in a Building	Not applicable
SEPP No. 7 - Port Kembla Coal Loader	Repealed by Infrastructure SEPP
SEPP No. 8 - Surplus Public Land	Repealed by Infrastructure SEPP
SEPP No. 9 - Group Homes	Repealed by Infrastructure SEPP
SEPP No. 10 - Retention of Low-Cost Rental Accommodation	Not applicable
SEPP No. 11 - Traffic Generating Developments	Repealed by Infrastructure SEPP
SEPP No. 12 - Public Housing (Dwelling Houses)	Repealed by SEPP No. 53
SEPP No. 13 - Sydney Heliport	Repealed by Sydney REP No. 26 - City West
SEPP No. 14 - Coastal Wetlands	Not applicable
SEPP No. 15 - Rural Land Sharing Communities	Not applicable
SEPP No. 16 - Tertiary Institutions	Repealed by Infrastructure SEPP
SEPP No. 17 - Design of Building in Certain Business Centres	Did not proceed
SEPP No. 18 - Public Housing	Did not proceed
SEPP No. 19 - Bushland in Urban Areas	Not applicable
SEPP No. 20 - Minimum Standards for Residential Flat Development	Repealed by SEPP No. 53
SEPP No. 21 – Caravan Parks	Not applicable
SEPP No. 22 - Shops and Commercial Premises	Not applicable
SEPP No. 23	Not allocated
SEPP No. 24 - State Roads	Did not proceed
SEPP No. 25 - Residential Allotment Sizes	Repealed by SEPP No. 53
SEPP No. 26 - Littoral Rainforests	Not applicable
SEPP No. 27 - Prison Sites	Repealed by Infrastructure SEPP
SEPP No. 28 - Town Houses and Villa Houses	Repealed by SEPP No. 25
SEPP No. 29 - Western Sydney Recreation Area	Not applicable
SEPP No. 30 - Intensive Agriculture	Not applicable
SEPP No. 31 - Sydney (Kingsford Smith) Airport	Repealed by Infrastructure SEPP
SEPP No. 32 - Urban Consolidation (Redevelopment of Urban Land)	Not applicable
SEPP No. 33 - Hazardous and Offensive Development	Not applicable
SEPP No. 34 - Major Employment Generating Industrial Development	Repealed by SEPP (Major Projects) 2005, subsequently SEPP (Major Development ) 2005
SEPP No. 35 - Maintenance Dredging of Tidal Waterways	Repealed by Infrastructure SEPP
SEPP No. 36 - Manufactured Home Estates	Not applicable
SEPP No. 37 - Continued Mines and Extractive Industries	Repealed by SEPP (Mining, Petroleum Production and Extractive Industries) 2007
SEPP No. 38 - Olympic Games and Related Development	Repealed by SEPP (Major Projects) 2005, subsequently SEPP (Major Development ) 2005
SEPP No. 39 - Spit Island Bird Habitat	Not applicable
SEPP No. 40 - Sewerage Works	Did not proceed
SEPP No. 41 - Casino/Entertainment Complex	Not applicable

<b>Annexure B</b> <b>Proposed Rezoning 61 Forest Reefs Rd, Millthorpe from RU1 Primary Production to RU5 Village</b> <b>State Environmental Planning Policies - Schedule of Consistency</b>	
<b>SEPP</b>	<b>Relevance/Comment</b>
SEPP No. 42 - Multiple Occupancy and Rural Land (Repeal)	Repealed
SEPP No. 43 - New Southern Railway	Repealed by Infrastructure SEPP
SEPP No. 44 - Koala Habitat Protection	Not applicable
SEPP No. 45 - Permissibility of Mining	Repealed by SEPP (Mining, Petroleum Production and Extractive Industries) 2007
SEPP No. 46 - Protection and Management of Native Vegetation	Repealed by Native Conservation Act, 1997
SEPP No. 47 - Moore Park Showground	Not applicable
SEPP No. 48 - Major Putrescible Land fill Sites	Repealed by Infrastructure SEPP
SEPP No. 49 - Tourism Accommodation in Private Homes (Draft Only)	Not applicable
SEPP No. 50 - Canal Estates	Not applicable
SEPP No. 51 - Eastern Distributor	Repealed by Infrastructure SEPP
SEPP No. 52 - Farm Dams and Other Works in Land and Water Management Plan Areas	Not applicable
SEPP No. 53 - Metropolitan Residential Development	Not applicable
SEPP No. 54 - Northside Storage Tunnel	Repealed by Infrastructure SEPP
SEPP No. 55 - Remediation of Land	Applicable. Addressed in Planning Proposal at Section 4.3(b)(viii) and Annexure H
SEPP No. 56 - Sydney Harbour Foreshores and Tributaries	Repealed by SEPP (Major Projects) 2005, subsequently SEPP (Major Development ) 2005
SEPP No. 57	Not allocated
SEPP No. 58 – Protecting Sydney’s Water Supply	Repealed by Clause 7(3) of the Drinking Water Catchments REP No. 1
SEPP No. 59 - Central Western Sydney Economic and Employment Area	Not applicable
SEPP No. 60 - Exempt and Complying Development	Not applicable
SEPP No. 61 - Exempt and Complying Development for White Bay and Glebe Island Ports	Repealed by Infrastructure SEPP
SEPP No. 62 - Sustainable Aquaculture	Not applicable
SEPP No. 63 - Major Transport Projects	Repealed by Infrastructure SEPP
SEPP No. 64 - Advertising and Signage	Not applicable
SEPP No. 65 - Design Quality of Residential Flat Development	Not applicable
SEPP No. 67 - Macquarie Generation Industrial Development Strategy	Repealed by Infrastructure SEPP
SEPP No. 69 - Major Electricity Supply Projects	Repealed by Infrastructure SEPP
SEPP 70 - Affordable Housing (Revised Schemes)	Not applicable
SEPP No. 71 - Coastal Protection	Not applicable
SEPP No. 72 - Linear Telecommunications Development – Broadband	Repealed by Infrastructure SEPP
SEPP No 73 – Kosciuszko Ski Resorts	Repealed by SEPP (Kosciuszko National Park – Alpine Resorts) 2007
SEPP No. 74 - Newcastle Port and Employment Lands	Repealed by SEPP (Major Projects) 2005, subsequently SEPP (Major Development ) 2005
SEPP (Housing for Seniors or People with a Disability) 2004	Not applicable
SEPP (Building Sustainability Index: BASIX) 2004	Not applicable
SEPP (ARTC Rail Infrastructure) 2004	Repealed by Infrastructure SEPP

<b>Annexure B</b> <b>Proposed Rezoning 61 Forest Reefs Rd, Millthorpe from RU1 Primary Production to RU5 Village</b> <b>State Environmental Planning Policies - Schedule of Consistency</b>	
<b>SEPP</b>	<b>Relevance/Comment</b>
SEPP (Sydney Metropolitan Water Supply) 2004	Repealed by Infrastructure SEPP
SEPP (Development on Kurnell Peninsula) 2005	Not applicable
SEPP (Major Development) 2005	Not applicable
SEPP (Sydney Region Growth Centres) 2006	Not applicable
SEPP (Mining, Petroleum Production & Extractive Industries) 2007	Not applicable
SEPP (Temporary Structures) 2007	Not applicable
SEPP (Infrastructure) 2007	Not applicable
SEPP (Kosciuszko National Park – Alpine Resorts) 2007	Not applicable
SEPP (Rural Lands) 2008	Consistent with Rural Development Principles as explained in Planning Proposal
SEPP (Exempt and Complying Development Codes) 2008	Not applicable
SEPP (Western Sydney Parklands) 2009	Not applicable
SEPP (Affordable Rental Housing) 2009	Not applicable
SEPP (Western Sydney Employment Area) 2009	Not applicable



Annexure C

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*Section 117 Directions Statement of Consistency*

**ANNEXURE C**  
**STATEMENT OF CONSISTENCY, SECTION 117 DIRECTIONS**  
**REZONING OF "CHENEYVALE" 61 FOREST REEFS ROAD, MILLTHORPE**  
**FROM RU1 PRIMARY PRODUCTION TO RU5 VILLAGE**

**1. EMPLOYMENT AND RESOURCES**

**1.1 Business and Industrial Zones**

This Direction does not apply because the Planning Proposal does not affect land within an existing or proposed business or industrial zone (including the alteration of any existing business or industrial zone boundary).

**1.2 Rural Zones**

According to this Direction, a Planning Proposal must not rezone land from a rural zone to a village zone.

However, pursuant to Clause 5, a planning proposal may be inconsistent with the terms of this Direction only if the relevant planning authority can satisfy the Director-General of the Department of Planning (or an officer of the Department nominated by the Director-General) that the provisions of the planning proposal that are inconsistent are:

- a) justified by a strategy which:
  - (i) gives consideration to the objectives of this direction,
  - (ii) identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), and
  - (iii) is approved by the Director-General of the Department of Planning, or
- b) justified by a study prepared in support of the planning proposal which gives consideration to the objectives of this direction, or
- c) in accordance with the relevant Regional Strategy or Sub-Regional Strategy prepared by the Department of Planning which gives consideration to the objective of this direction, or
- d) is of minor significance.

In consideration of the above matters, the inconsistency with this Direction is justified as follows:

- The objective of this direction is to protect the agricultural production value of rural land. It is submitted that this Planning Proposal is not adverse to this objective because the subject land no longer represent an agricultural resource due to the following:
  - It is of a modest size with little potential for sustainable agricultural production.

- Its primary use is for rural residential purposes.
- It is adjacent to the village and large lot residential development.
- The northern half of the subject land is included in the Strategy as an investigation area for the extension of the village.
- This Planning Proposal demonstrates consistency with:
  - The *Blayney Settlement Strategy – Town of Millthorpe* (applicable Local Strategy); and
  - The *Blayney Cabonne Orange Sub-Regional Rural and Industrial Land Use Strategy*.
- The Planning Proposal is of relatively minor significance given that it involves land immediately adjacent to the existing RU5 Village Zone and typical urban utility service mains. The overall lot yield (some 18 vacant lots) is considered modest.

### **1.3 Mining, Petroleum and Extractive Industries**

The planning proposal is not affected by this Direction.

### **1.4 Oyster Aquaculture**

The planning proposal is not affected by this Direction.

### **1.5 Rural Lands**

This Direction is applicable to the Planning Proposal.

The objectives of this Direction are:

- a) protect the agricultural production value of rural land,
- b) facilitate the orderly and economic development of rural lands for rural and related purposes.

According to this Direction a planning proposal must

- a) be consistent with the Rural Planning Principles listed in State Environmental Planning Policy (Rural Lands) 2008.
- b) be consistent with the Rural Subdivision Principles listed in State Environmental Planning Policy (Rural Lands) 2008.

The Planning Proposal has been assessed as consistent with the Rural Planning Principles of SEPP (Rural Lands) 2008 (refer page 23 of the Planning Proposal).

## **2. ENVIRONMENT AND HERITAGE**

### **2.1 Environment Protection Zones**

This Direction does not apply because the Planning Proposal does not affect land within an environment protection zone.

### **2.2 Coastal Protection**

The Planning Proposal is not affected by this Direction.

### **2.3 Heritage Conservation**

This Direction is applicable to the Planning Proposal because the subject land is within a heritage conservation area.

The objective of this Direction is to conserve items, areas, objects and places of environmental heritage significance and indigenous heritage significance.

According to this Direction, a planning proposal must contain provisions that facilitate the conservation of:

- a) Items, places, buildings, works, relics, moveable objects or precincts of environmental heritage significance to an area, in relation to the historical, scientific, cultural, social, archaeological, architectural, natural or aesthetic value of the item, area, object or place, identified in a study of the environmental heritage of the area,
- b) Aboriginal objects or Aboriginal places that are protected under the National Parks and Wildlife Act 1974, and
- c) Aboriginal areas, Aboriginal objects, Aboriginal places or landscapes identified by an Aboriginal heritage survey prepared by or on behalf of an Aboriginal Land Council, Aboriginal body or public authority and provided to the relevant planning authority, which identifies the area, object, place or landscape as being of heritage significance to Aboriginal culture and people.

The Planning Proposal is inconsistent with this Direction to the extent that it does not include provisions to the above effect. However, the inconsistency is justified on the grounds that the potential impacts are not significant and that a more detailed assessment can be undertaken at the DA stage. In this regard:

- The current provisions of Blayney LEP 2012 require an assessment of potential heritage impacts.
- Prior to any development, it will be necessary to prepare a Statement of Heritage Impact in accordance with the NSW Heritage Office publication *Statement of Heritage Impact Guidelines* (particularly Table 7 – Relevant HIS Questions). It is appropriate for this assessment to be undertaken at the DA stage.

- In regard to Aboriginal areas, objects, places or sites:
  - The *Blayney Settlement Strategy – Town of Millthorpe* states that *the growth of Millthorpe should seek to avoid or protect known and newly identified sites of Aboriginal Significance. The only known site near Millthorpe has been clearly identified and protected through an Aboriginal Heritage Study and will be isolated from residential development.*
  - Given the majority of the subject land has been identified in the Strategy as a future village extension area, it is reasonable to assume that the subject land and its surrounds are not sensitive in terms of Aboriginal significance.

## **2.4 Recreation Vehicle Areas**

The Planning Proposal is not affected by this Direction.

## **3. HOUSING, INFRASTRUCTURE AND URBAN DEVELOPMENT**

### **3.1 Residential Zones**

This Direction is applicable to the Planning Proposal. The objectives of this Direction are:

- a) to encourage a variety and choice of housing types to provide for existing and future housing needs,
- b) to make efficient use of existing infrastructure and services and ensure that new housing has appropriate access to infrastructure and services, and
- c) to minimise the impact of residential development on the environment and resource lands.

According to this Direction a planning proposal must include provisions that encourage the provision of housing that will:

- a) broaden the choice of building types and locations available in the housing market, and
- b) make more efficient use of existing infrastructure and services, and
- c) reduce the consumption of land for housing and associated urban development on the urban fringe, and
- d) be of good design.

A planning proposal must, in relation to land to which this Direction applies:

- a) contain a requirement that residential development is not permitted until land is adequately serviced (or arrangements satisfactory to the council, or other appropriate authority, have been made to service it), and
- b) not contain provisions which will reduce the permissible residential density of land.

The Planning Proposal is considered to be consistent with this Direction due to the following:

- It broadens the choice of building types and locations available in the housing market, compared to what is currently permissible on the site, due to a mixture of different proposed lot sizes.
- The proposal will increase lot yield and thus will contribute to a more efficient use of existing infrastructure and services.
- The proposal applies to land that is identified in a local strategy as a potential village extension area. The proposal may assist to reduce the pressure for the consumption of land for housing and associated urban development in other urban fringe areas that have not been identified in an adopted strategy.
- The planning proposal is not adverse to the provision of housing with good design.
- Town water, sewer reticulation, electricity and telecommunications are available in the area and will be extended to the proposed development in accordance with the requirements of the relevant service authority. In accordance with Council's normal requirements the provision of services will occur at the subdivision stage and prior to any residential development being undertaken on any allotment.
- The planning proposal does not contain provisions that reduce the permissible residential density of the subject land.

### **3.2 Caravan Parks and Manufactured Home Estates**

The Planning Proposal is not affected by this Direction.

### **3.3 Home Occupations**

The Planning Proposal is not affected by this Direction.

### **3.4 Integrating Land Use and Transport**

This Direction applies to the Planning Proposal.

There are no aspects of the proposal that are inconsistent with the objectives of this Direction, particularly as:

- The existing and planned road system would be of an adequate standard to cater for the additional traffic that would be generated by this proposal.
- School bus routes operate in the vicinity of the subject land.
- The site is within easy walking and cycling distance of the Millthorpe town centre.

### **3.5 Development near Licensed Aerodromes**

The Planning Proposal is not affected by this Direction.

■



### **3.6 Shooting Ranges**

The Planning Proposal is not affected by this Direction.

## **4. HAZARD AND RISK**

### **4.1 Acid Sulphate Soils**

The Planning Proposal is not affected by this Direction.

### **4.2 Mine Subsidence and Unstable Land**

The Planning Proposal is not affected by this Direction.

### **4.3 Flood Prone Land**

The Planning Proposal is not affected by this Direction as the subject land is not identified on Council's LEP mapping as a flood planning area.

The *Blayney Settlement Strategy – Town of Millthorpe* suggests that the northern tip of the subject land may be subject to localised flooding due to poor drainage arrangements associated with the railway underpass on Forest Reefs Road. The Strategy suggests that this issue will be addressed by Council.

### **4.4 Planning for Bushfire Protection**

The Planning Proposal is not affected by this Direction.

## **5. REGIONAL PLANNING**

### **5.1 Implementation of Regional Strategies**

The Planning Proposal is not affected by this Direction.

### **5.2 Sydney Drinking Water Catchments**

The Planning Proposal is not affected by this Direction.

### **5.3 Farmland of State and Regional Significance on the NSW Far North Coast**

The Planning Proposal is not affected by this Direction.

### **5.4 Commercial and Retail Development along the Pacific Highway, North Coast**

The Planning Proposal is not affected by this Direction.

### **5.5 Development in the vicinity of Ellalong, Paxton and Millfield (Cessnock LGA)**

Revoked

6

**5.6 Sydney to Canberra Corridor**

Revoked

**5.7 Central Coast in vicinity of Ellalong, Paxton and Millfield (Cessnock LGA)**

Revoked

**5.8 Second Sydney Airport: Badgery's Creek**

The Planning Proposal is not affected by this Direction.

**6. LOCAL PLAN MAKING**

**6.1 Approval and Referral Requirements**

The Planning Proposal does not alter provisions relating to approval and referral requirements.

**6.2 Reserving Land for Public Purposes**

The Planning Proposal is not affected by this Direction.

**6.3 Site Specific Provisions**

The Planning Proposal is not affected by this Direction.

**7. METROPOLITAN PLANNING**

**7.1 Implementation of the Metropolitan Strategy**

The planning proposal is not affected by this Direction.



Ms Rebecca Ryan  
General Manager  
Blayney Shire Council  
PO Box 62  
BLAYNEY NSW 2799

17/07608

Attention: Mr Mark Dicker, Director Planning and Environmental Services

Dear Ms Ryan,

**Planning proposal (PP\_2017\_BLAYN\_001\_00) to amend Blayney Local Environmental Plan 2012 – Rezoning 61 Forest Reefs Road, Millthorpe from zone RU1 Primary Production to RU5 Village.**

I am writing in response to your Council's letter dated 23 May 2017 requesting a Gateway determination under section 56 of the *Environmental Planning and Assessment Act, 1979* in respect of the planning proposal to rezone land from RU1 Primary Production to RU5 Village at 61 Forest Reefs Road, Millthorpe, Lot 286 DP 1018875.

As delegate of the Minister for Planning, I have now determined the planning proposal should proceed subject to the conditions in the attached Gateway determination (**Attachment 1**).

Council is commended for making a resolution to review the Blayney Settlement Strategy 2012. Any future expansions to the RU5 Village zone in Millthorpe should be justified by an endorsed local landuse strategy.

I am satisfied of the planning proposal's consistency with relevant section 117 Directions. No further approval is required in relation to these Directions.

The Minister delegated plan making powers to Councils in October 2012. It is noted that Council has requested to be issued with delegation for this planning proposal. I have considered the nature of Council's planning proposal and have decided to issue an authorisation for Council to exercise delegation to make this plan. (**Attachment 2**)

The amending Local Environmental Plan (LEP) is to be finalised within 12 months of the week following the date of the Gateway determination. Council should aim to commence the exhibition of the planning proposal as soon as possible. Council's request to draft and finalise the LEP should be made directly to Parliamentary Counsel's Office ([parliamentary.council@pco.nsw.gov.au](mailto:parliamentary.council@pco.nsw.gov.au)) 10 weeks prior to the projected publication date.

All related files for LEP Amendment, including PDF Maps, Map Cover Sheet, Planning Proposal document and GIS Data, if available, must be submitted to the Department via the Planning Portal Website at <https://www.planningportal.nsw.gov.au/planning-tools/online-submission-planning-data>. To submit the data, Council is required to create an account and log in using these details.

Department of Planning & Environment  
Western Region 188 Macquarie Street Dubbo NSW 2830 | PO Box 58 Dubbo NSW 2830 | [www.planning.nsw.gov.au](http://www.planning.nsw.gov.au)

A copy of the request should be forwarded to the Department of Planning and Environment ([westernregion@planning.nsw.gov.au](mailto:westernregion@planning.nsw.gov.au)) for administrative purposes.

In accordance with "A guide for the preparation of local environmental plans" attachment 5 – Delegated plan making reporting template (**Attachment 3**) is enclosed for Council's information. Table 2 of the attachment is to be completed and included in Council's section 59 submission and forwarded to the [westernregion@planning.nsw.gov.au](mailto:westernregion@planning.nsw.gov.au) when requesting the planning proposal be finalised.

The State Government is committed to reducing the time taken to complete LEPs by tailoring the steps in the process to the complexity of the proposal, and by providing clear and publicly available justification for each plan at an early stage. In order to meet these commitments, the Minister may take action under section 54(2)(d) of the *Environmental Planning & Assessment Act, 1979* if the time frames outlined in this determination are not met.

Should you have any queries in regard to this matter, I have arranged for Jenna McNabb of the Department's Western Region office to assist you. Ms McNabb can be contacted on 02 6841 2180.

Yours sincerely,



26.6.17

**Azaria Dobson**  
**Acting Director Regions, Western**  
**Planning Services**

Encl:

Attachment 1 – Gateway determination

Attachment 2 – Written Authorisation to Exercise Delegation

Attachment 3 – Delegated Plan Making Reporting template



## Planning & Environment

### Gateway Determination

**Planning proposal (Department Ref: PP\_2017\_BLAYN\_001\_00):** to rezone land from RU1 Primary Production to RU5 Village and reduce the Minimum Lot Size from 100ha to part 450m2 and part 1.25ha to facilitate an additional 19-lot residential subdivision at 61 Forest Reefs Road, Millthorpe, Lot 286 DP 1018875.

I, the Director Regions, Western at the Department of Planning and Environment as delegate of the Minister for Planning, have determined under section 56(2) of the *Environmental Planning and Assessment Act, 1979* that an amendment to the *Blayney Local Environmental Plan (LEP) 2012* to rezone land should proceed subject to the following conditions:

1. Community consultation is required under sections 56(2)(c) and 57 of the *Environmental Planning and Assessment Act 1979* as follows:
  - (a) the planning proposal must be made publicly available for a minimum of **28 days**; and
  - (b) the relevant planning authority must comply with the notice requirements for public exhibition of planning proposals and the specifications for material that must be made publicly available along with planning proposals as identified in section 5.5.2 of *A Guide to Preparing LEPs (Department of Planning & Infrastructure 2013)*.
2. Consultation is required with the Office of Environment & Heritage (OEH) under section 56(2)(d) of the *Environmental Planning and Assessment Act, 1979* and/or to comply with the requirements of relevant section 117 Directions. OEH is to be provided with a copy of the planning proposal and any relevant supporting material, and given at least 21 days to comment on the proposal.
3. A public hearing is not required to be held into the matter by any person or body under section 56(2)(e) of the *Environmental Planning and Assessment Act, 1979*. This does not discharge Council from any obligation it may otherwise have to conduct a public hearing (for example, in response to a submission or if reclassifying land).
4. The timeframe for completing the LEP is to be **12 months** from the week following the date of the Gateway determination.

Dated 26<sup>th</sup> day of June 2017.

A handwritten signature in blue ink, appearing to read 'Azaria Dobson'.

Azaria Dobson  
Acting Director Regions, Western  
Planning Services  
Department of Planning and Environment

Delegate of the Minister for Planning





#### WRITTEN AUTHORISATION TO EXERCISE DELEGATION

Blayney Shire Council is authorised to exercise the functions of the Minister for Planning under section 59 of the *Environmental Planning and Assessment Act 1979* that are delegated to it by instrument of delegation dated 14 October 2012, in relation to the following planning proposal:

Number	Name
PP_2017_BLAYN_001_00	Planning proposal to rezone land from RU1 Primary Production to RU5 Village and reduce the Minimum Lot Size from 100ha to part 450m2 and part 1.25ha to facilitate an additional 19-lot residential subdivision at 61 Forest Reefs Road, Millthorpe, Lot 286 DP 1018875.

In exercising the Minister's functions under section 59, the Council must comply with the Department's "*A guideline for the preparation of local environmental plans*" and "*A guide to preparing planning proposals*".

Dated 26<sup>th</sup> day of June 2017

A handwritten signature in blue ink, appearing to read 'ADobson'.

Azaria Dobson  
Acting Director Regions, Western  
Planning Services  
Department of Planning and Environment

Delegate of the Minister for Planning





## Attachment 5 – Delegated plan making reporting template

### Reporting template for delegated LEP amendments

#### Notes:

- Planning proposal number will be provided by the department following receipt of the planning proposal
- The department will fill in the details of Tables 1 and 3
- RPA is to fill in details for **Table 2**
- If the planning proposal is exhibited more than once, the RPA should add additional rows to Table 2 to include this information
- The RPA must notify the relevant contact officer in the regional office in writing of the dates as they occur to ensure the department's publicly accessible LEP Tracking System is kept up to date
- A copy of this completed report must be provided to the department with the RPA's request to have the LEP notified

**Table 1 – To be completed by the department**

Stage	Date/Details
Planning Proposal Number	PP_2017_BLAYN_001_00
Date sent to Department under s56	8 June 2017
Date considered at LEP review Panel	
Gateway determination date	26 June 2017

**Table 2 – To be completed by the RPA**

Stage	Date/Details	Notified Reg Off
Dates draft LEP exhibited		
Date of public hearing (if held)		
Date sent to PCO seeking Opinion		
Date Opinion received		
Date Council resolved to adopt LEP		
Date LEP made by GM (or other) under delegation		
Date sent to DPE requesting notification		

**Table 3 – To be completed by the department**

Stage	Date/Details
Notification Date and Details	

Additional relevant information:



**Planning &  
Environment**



Our ref: IRF17/07607

Ms Rebecca Ryan  
General Manager  
Blayney Shire Council  
PO Box 62  
Blayney NSW 2799

**Attention: Mark Dicker – Director Planning and Environmental Services**

Dear Ms Ryan

**Planning proposal (PP\_2017\_BLAYN\_001\_00) – Alteration of Gateway determination – 61 Forest Reefs Road, Millthorpe**

I refer to Council's correspondence of 1 June 2018 seeking an extension of time to complete Planning Proposal (PP\_2017\_BLAYN\_001\_00) to rezone and amend the minimum lot size at Lot 286 DP 1018875, 61 Forest Reefs Road, Millthorpe and issue an Alteration of Gateway determination.

I have determined as the delegate of the Minister, in accordance with section 3.34(7) of the *Environmental Planning and Assessment Act 1979*, to alter the Gateway determination dated 26 June 2017.

The Alteration of the Gateway determination is enclosed, which amends the planning proposal extending the timeframe by 6 months only, to complete the planning proposal by 3 January 2019.

Should you have any further questions in relation to this matter, please contact Haydon Murdoch, Planning Officer, Western Region, at the Department on 6841 2180.

Yours sincerely

12.6.18

**Damien Pfeiffer  
Director Regions, Western  
Planning Services**

Encl: Alteration of Gateway Determination



**Planning &  
Environment**

## **Alteration of Gateway Determination**

***Planning proposal (Department Ref: PP\_2017\_BLAYN\_001) – 61 Forest Reefs Road, Millthorpe***

I, Director Regions, Western, Planning Services at the Department of Planning and Environment, as delegate of the Minister for Planning, have determined under section 3.34(7) of the *Environmental Planning and Assessment Act 1979* to alter the Gateway determination dated 26 June 2017 for the proposed amendment to the Blayney Local Environmental Plan 2012 as follows:

1. Delete  
"condition 4" The timeframe for completing the LEP is to be 12 months from the week following the date of the Gateway determination.  
  
and replace with  
  
new condition 4: The timeframe for completing the LEP is by 3 January 2019.

Dated 12<sup>th</sup> day of June 2018.

A handwritten signature in black ink, appearing to read "D. Pfeiffer".

**Damien Pfeiffer  
Director Regions, Western  
Planning Services  
Department of Planning and  
Environment**

**Delegate of the Minister for Planning**

PP 2017 BLAYN 001 IRE 17/07608



(1)

The General Manager,  
Blayney Shire Council,  
P.O. Box 62,  
Blayney, N.S.W. 2799

BLAYNEY SHIRE COUNCIL
31 JUL 2017
Doc. No.
Verified:
Disp. GA39:
Sent.

26-7-17.

Dear Sir/Madam,

Ref: NOTICE OF PUBLIC EXHIBITION OF AN  
AMENDMENT TO THE BLAYNEY LOCAL  
ENVIRONMENTAL PLAN 2012-REZONING OF  
LAND AT MILLTHORPE.

I, [REDACTED] my husband and I were  
greatly relieved when we purchased our own home [REDACTED] in  
quiet [REDACTED] Millthorpe. We have paid our rates ever since and  
we think that our opinion matters as to our current lifestyle in this  
beautiful town, particularly as a current landowner wants to extend and  
rezone an area with the addition of 19 housing lots, which can only  
increase the existing noise level as more people, more children, more cars, and  
dogs create an "instant suburban" environment. [REDACTED] to get  
away from such an environment and to enjoy a "quiet country lifestyle"  
that Millthorpe has to offer, why would anyone want to spoil it?

If the landowner wants to spoil our peace and  
quiet, why doesn't he move into Orange or a larger community which  
seems to serve his purpose, instead of interfering with existing country  
folks and their future plans of ideal, quiet, harmonious living? I  
find this form of thinking very UN-AUSTRALIAN and SELFISH.

[REDACTED]

(2)

[REDACTED]

[REDACTED] surrounded by undulating hills and tranquility - nineteen more proposed dwellings would mean a lot more roads, noise and more evidence of <sup>sugarcane</sup> suburban and a lot more infrastructure which to this date, is unimpressive. [REDACTED]

[REDACTED]

Both of our neighbours have purchased land which allows them to [REDACTED] and have reasonable space around their dwellings; if the proposed nineteen lots are approved a "snowballing" affect will enable them and other neighbours to allow a "claustrophobia" affect to take place and then our "ideal country lifestyle" would be no more - if I wanted to "suburbanise Millthorpe" I'd move to Sydney [REDACTED]

[REDACTED]

I would appreciate this letter being given some "serious consideration" by Blayney Shire Council - we are all ratepayers and as such, our opinions matter and once the ball starts rolling there will "proposed rezoning" stop, so that Millthorpe residents enjoy their quality of life that they enjoy now.

Thank you for your time.

[REDACTED]



21 August 2017

The General Manager  
Blayney Shire Council  
PO Box 62  
Blayney NSW 2798

Attn: Ms Rebecca Ryan

Dear Ms. Ryan,

**Re: The amendment of the Blayney Local Environmental Plan 2012, to include rezoning of 61 Forest Reefs Road, Millthorpe.**

As a neighbouring landholder at [REDACTED] Millthorpe, we have no objections to the rezoning of 61 Forest Reefs Road, Millthorpe from RU1 Primary Production to RU5 Village.

**Re: Planning Proposal, Rezoning of Land from RU1 Primary Production to RU5 Village, "Cheneyvale" 61 Forest Reefs Road, Millthorpe.**

We do however have some objections about the concept development proposal, suggested in the aforementioned document, which may come to fruition following an approval of the rezoning. We do understand that the submission is a concept only.

The concerns that we have, in regards to the concept proposal, are detailed below and include:

- Any structures including dwellings allowed on Lot 12.
- Removal of established vegetation (i.e. trees).
- The visual impact of development on Lot 11.
- The types of boundary fencing and buffer zones on the eastern boundary of the property.


A plan and photographs are included at the end of this correspondence that highlights our concerns.

➤ Lot 12:

Page 18 of the Proposal states: "expansion does not involve prime agricultural land". We dispute this. The proposed Lot 12 consists of improved pastures and is ideal for the grazing of horses and a small flock of sheep. This has been done by past owners who set [REDACTED] up as a horse property, and the [REDACTED] who have grazed small flocks of sheep on several occasions. Our horses have also been grazed there for small periods of time. [REDACTED] that are larger properties primarily used for cattle grazing.

[REDACTED] It would be devastating if any development were to take place here. The building envelope as proposed in Figure 4 of the Proposal is on a 'similar contour' [REDACTED]

[REDACTED] A tree buffer would need to be planted immediately for it to have any effect on visibility. [REDACTED]

<b>COUNCIL</b>
22 AUG 2017
Doc. No. 15/34760
Verified: 
Disp. Vol 2
GA39: 2040
Sent.

**COPY**

view to the west is one of the biggest assets, looking over paddocks, trees and to Mt. Canobolas.

➤ Removal of established vegetation:

61 Forest Reefs Road is an aesthetically pleasing parcel of land, which is part of the charm of living [REDACTED] There is a beautiful driveway of Ornamental Pear trees which are visually stunning from spring through to autumn. These can be seen from various parts of the Millthorpe village; from Glenorie Road and Forest Reefs Road. They are also visible from trains and the historic Millthorpe Railway Station where functions are often held.

These trees are typical of an established and well maintained property on the outskirts of an historical village. As per the Planning Proposal, the concept design in Figure 4 shows 32 of these trees on the driveway off Glenorie Road.. Also according to Figure 4, the number of trees that could be removed should a development as suggested would be at least 24! Their removal or relocation would be of great loss to the village.

➤ Lot 11:

Another area of concern, are the existing trees in Lot 11. There is a native tree buffer on this Lot which can be seen [REDACTED] These trees are scraggly and depending on the vegetation preferences of a potential builder, these may be destroyed, as could the pine tree buffer on the east side of the lot. This would leave the whole allotment to be in full view [REDACTED]

➤ Type of boundaries and buffers thereof:

If 61 Forest Reefs Road were to be approved for rezoning and subsequent development we would be concerned about the boundary fence between our properties. Currently it is an old style rural fence with hardwood posts and square mesh, typical of most rural fencing around the village. It is in reasonable condition and does not need replacing. This style of fencing required for any allotments in a development would require further consultation. There is also a case for a decent tree buffer along this property (where it does not already exist) to delineate a 'rural to village' transition.

Reinforcing our position: We do not oppose rezoning from rural to village, but we do have concerns over the concept development plan in the Proposal. We also acknowledge that a development proposal would be subject to change, if re-zoning were to be approved.

*Notes: There are some conflicting items in the Planning Proposal that should be noted:*

*On page 8 there is a reference to Figure 4 and the creation of 19 lots. There are actually 20 lots shown on Figure 4 – there are two labelled '18'.*

*Page 12 suggests "the proposed cul-de-sac is considered acceptable in the circumstances because it is relatively short and would serve only a small number of lots". According to Figure 4, potentially 14 lots out of the 20 (70%) would be served by the cul-de-sac.*

Yours faithfully,

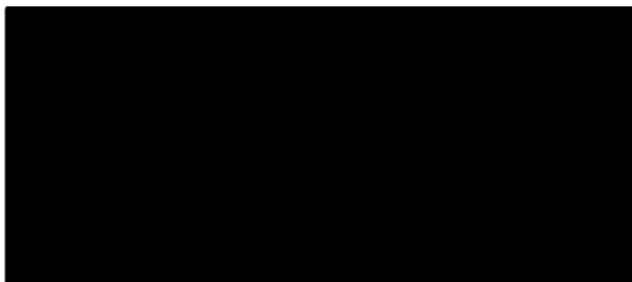


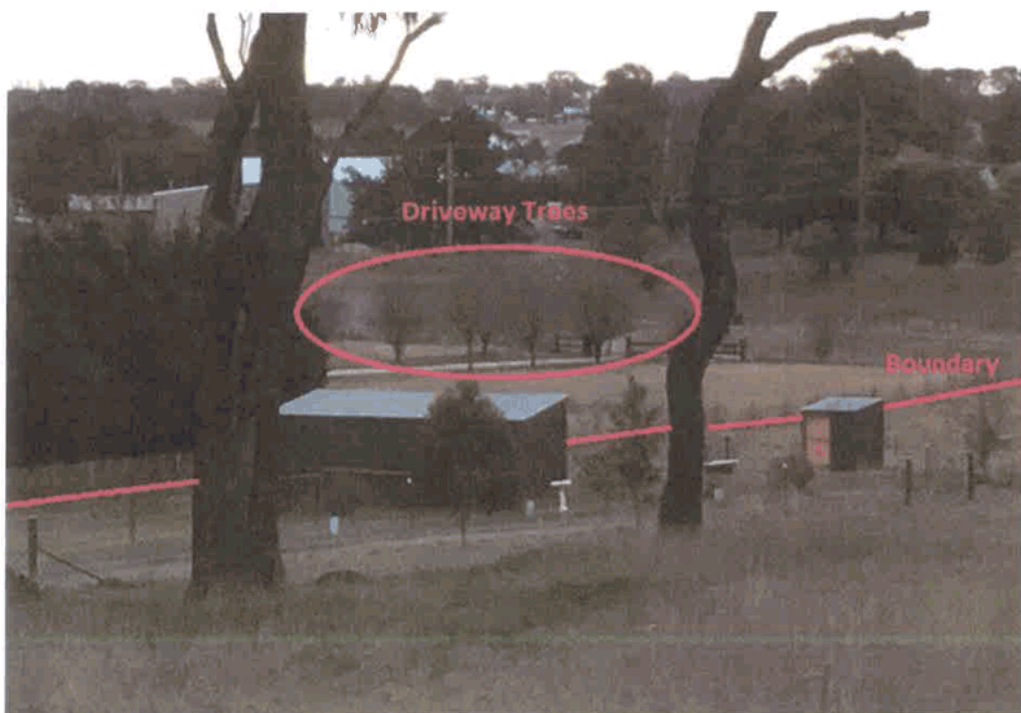
Figure 1: [REDACTED]



Figure 2: [REDACTED]



Figure 3: [REDACTED]









Tuesday, August 22, 2017

The General Manager,  
Blayney Shire Council,  
Adelaide St, Blayney,

**Re: Amendment No. 9, Blayney Local Environment Plan 2012**

Dear General Manager,

I would like object to Blayney Council's proposed amendment No.9 for rezoning of Lot 286, 61 Forest Reefs Rd, Millthorpe. My objection is based on a number of heritage, civic planning, financial, and equity grounds. In brief, this area on the western side of Glenorie Rd, Millthorpe is completely unsuitable for the intense urban development proposed in the amendment and a radical departure from the principals of ordered and sympathetic development in this Heritage Conservation Area. Below is a brief, though not exhaustive, summary of the serious concerns that I have with this proposed amendment to Blayney LEP 2012.

**Rezoning from RU1 to RU5:** The proposal to rezone this small patch of land from RU1 Primary Production to RU5 Village represents a radical departure from the land's current and historic land-use rating. The land will be redefined from prime rural to village, amenities etc. If this land was suitable for such a sudden departure from its primary use, then why was this rezoning not flagged in the current LEP? Such a rezoning, under Blayney LEP 2012, could include, with consent:

*"Child care centres; Community facilities; Dwelling houses; Light industries; Neighbourhood shops; Places of public worship; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Respite day care centres; Roads; Schools; Any other development not specified in item 2 or 4"*



I argue that these potential uses are totally incompatible with this rural and semi-rural area of Millthorpe.

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**Incompatibility with Blayney LEP 2012:** the current LEP for Blayney states that:

*The particular aims of this Plan are as follows:*

*(a) to encourage development that complements and enhances the unique character and amenity of Blayney including its settlements, localities, and its rural areas,*

I believe that the creation of a large, urban sub-division in this part of the historic Millthorpe — an area included in Millthorpe Heritage Conservation Area — would not in any way “complement and enhance the unique character and amenity” of our village. Quite the contrary, the development would represent a totally incongruous and foreign development in an historic area of Millthorpe that has been rural and semi-rural for 150 years.

**Traffic:** The proposed amendment No. 9 to LEP 2012 would see approval for 19 lots to be fed onto a cul-de-sac leading to Glenorie Road, a country lane with no shoulders and prone to excessive stormwater during times of high rainfall that runs on a seven-degree slope down to Forest Reefs Rd. The road also suffers from poor visibility due to its topographical location and would require a major upgrade to make it suitable for development of an urban subdivision of this nature. Such an upgrade would no doubt be borne by the ratepayers of the Shire; in effect cost-shifting the development from the developer onto hard-pressed ratepayers. In brief, this road is manifestly unsuitable for such a high-density urban development as that proposed in this amendment.

**Sewer:** The area of the proposed development is not included in the current Millthorpe sewer scheme and again would require large infrastructure costs that would only be partly borne by the developer. This again highlights the unsuitability of this area for a large urban development of this size.

**Infrastructure:** Large infrastructure costs of power, gas, and other utilities would need to be installed from scratch at this site. Again raising the question of how this site is suitable such a development and the likely subsidy costs to ratepayers for a development completely contrary to current land-use.

**Heritage:** This proposed amendment is within the Millthorpe Heritage Conservation Area and is manifestly and obviously incompatible with the development principles of this Heritage Area. This fact alone should disqualify the amendment from being approved.

**Location:** The proposed amendment is located in a rural area RU1 Primary Production under the Millthorpe LEP 2012. This is because the area is to the western side of the main western rail line and has no suitable infrastructure for such a development. The rail line forms a barrier to the village separating the proposed development from schools, shops, and other facilities. The proposed development is also totally out of character and density of current development in this semi-rural area.

**Available lots:** Millthorpe is already well-served with potential lots for future growth including more than two dozen undeveloped lots on the northern side of Forest Reefs Road that were recently approved for development. Further I am aware of a number of local landholders with established lots who have had development applications refused with no reason given. If Millthorpe is short of current building lots, then why are local land-holders being refused the opportunity to develop their land on lots sub-divided in previous years for local housing? How do these refusals tie-in with the sudden urgent need for such an incompatible, expensive, and totally out of character sub-division in a rural part of the Shire?

Like the north Millthorpe development of 12 years ago, this proposed amendment to the DA looks like simply an amendment designed to serve the wishes of a local developer while ignoring the concerns, effective and complementary land-use, and objective need for future development in the village. One wonders how such a highly-concentrated urban development for such an unsuitable rural area — currently zoned for primary production — with no current infrastructure or topographical suitability, could even be considered by Council.

Yours,





21/08/2017

To the General Manager,

We write to you in reference to the proposed amendment to the Blayney Local Environmental Plan 2012 – rezoning of land at Millthorpe. More specifically the proposal to rezone the land currently known as 61 Forest Reefs Rd to RU5 Village to allow the subdivision of 19 residential blocks.

We would like to state that as the adjoining land holders to the west of the subject land, we are strongly opposed to the proposal in its current form due to the impact on our own residence and for Millthorpe as a whole. An additional 18 residences would cause increases in local traffic congestion, local noise levels, infrastructure strain and visual impacts not congruent with the heritage brand that the village promotes.

An additional 18 residences in this small allotment would increase road congestion on the Glenorie road, Glenorie Rd and Forest Reefs Rd intersection and the rail underpass to Millthorpe. Lots 2, 3, 4, and potentially 1, will all have driveways directly accessing Glenorie Rd between the proposed cul-de-sac and the intersection of Glenorie Rd and Forest Reefs Rd. These driveways will add to congestion and traffic confusion in an area which is already awkward with a 90 degree bend just prior to a tee intersection. The development proposal states that the cul-de-sac is far enough away from the tee intersection to not be an impact but it does not consider the additional driveways. Having witnessed the traffic at the tee intersection first hand at high usage times of the day, e.g. start & end of shifts at Cadia, there will be significant issues with more traffic turning into Glenorie Rd near the intersection. A site inspection of the road at the intersection will show that a majority of vehicles travelling east from Forest Reefs and turning right into Glenorie Rd will cut the corner onto the wrong side of the road to get through the intersection faster. With this intersection design, adding more access points

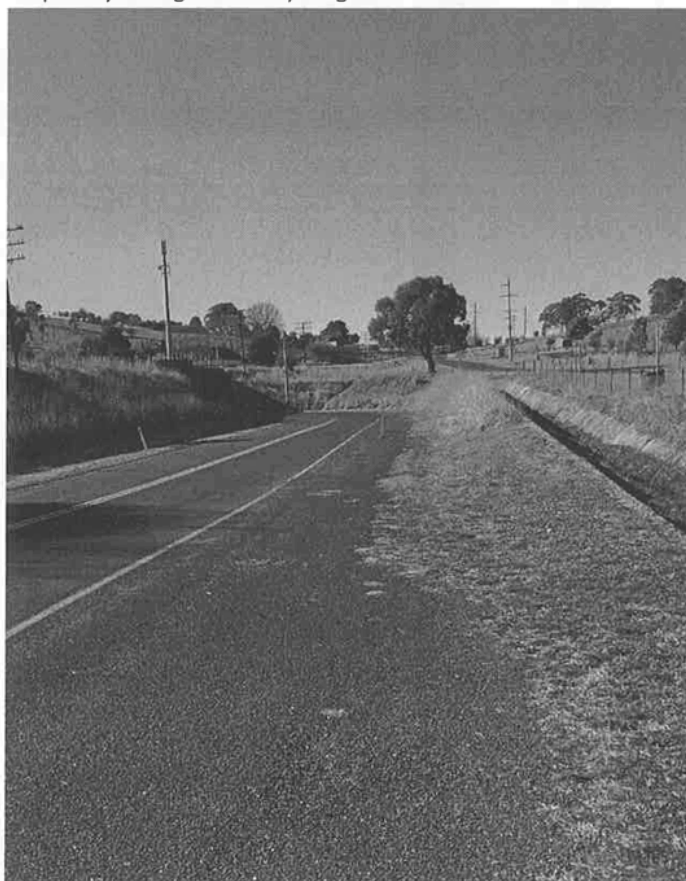
in close proximity can only cause accidents.



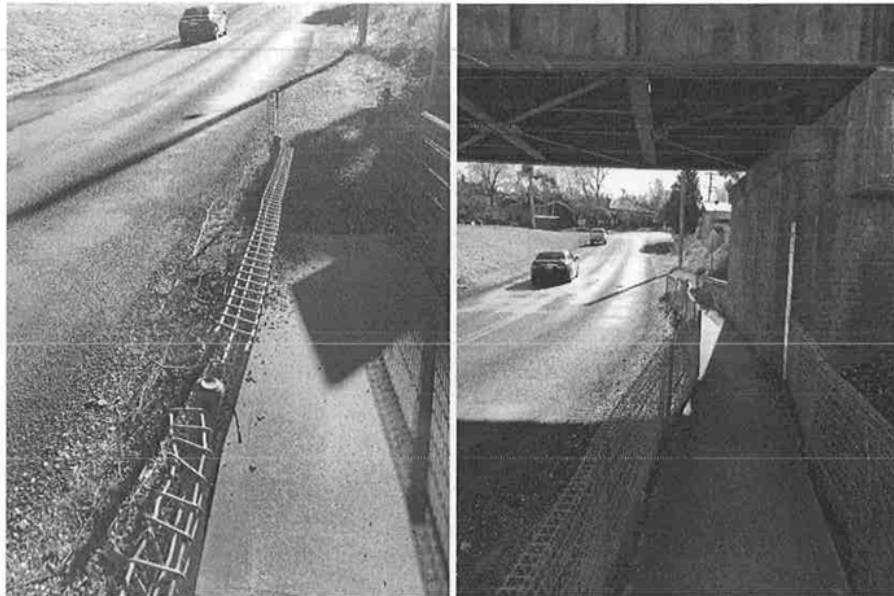
*Figure 1: Image captured from intersection of Forest Reefs Rd and Glenorie Rd facing South. Driveways from lots 2-4 will enter Glenorie Rd in close proximity to the intersection*

It is interesting to note also that the proposal states that the lots are close enough to town that walking or cycling are reasonable modes of transport into the town center. I would contest that the infrastructure to support walking or cycling from these lots to the town center is extremely poor to the point of being dangerous. For cycling, Glenorie Rd surface is quite poor which inhibits cycling to town. There is also no verge on the left of the road heading into town through the rail underpass which forces cyclists to share the same patch of road as cars. For walking, there is no delineation between traffic and pedestrians from the Glenorie Rd – Forest Reefs Rd intersection to the rail underpass leaving pedestrians to share the verge with traffic which cannot be seen in advance due to the underpass. It is evident that traffic does venture well onto the verge as all the guide posts have been run over. The fence separating the walkway and the road through the rail underpass is damaged and in quite a state of disrepair. There is also no delineation nor much of a verge from the underpass to Victoria St where the footpath begins. Pedestrian are literally walking on the road in to oncoming traffic. For this

development to attract families as stated, cycling and walking infrastructure into the town center must be improved. These points were raised in the active travel survey of a couple of years ago but if anything the infrastructure has deteriorated.



*Figure 2: Image taken facing west from Glenorie Rd - Forest Reefs Rd intersection. Note lack of delineation between pedestrians and traffic and also limited visibility of oncoming traffic from the underpass.*

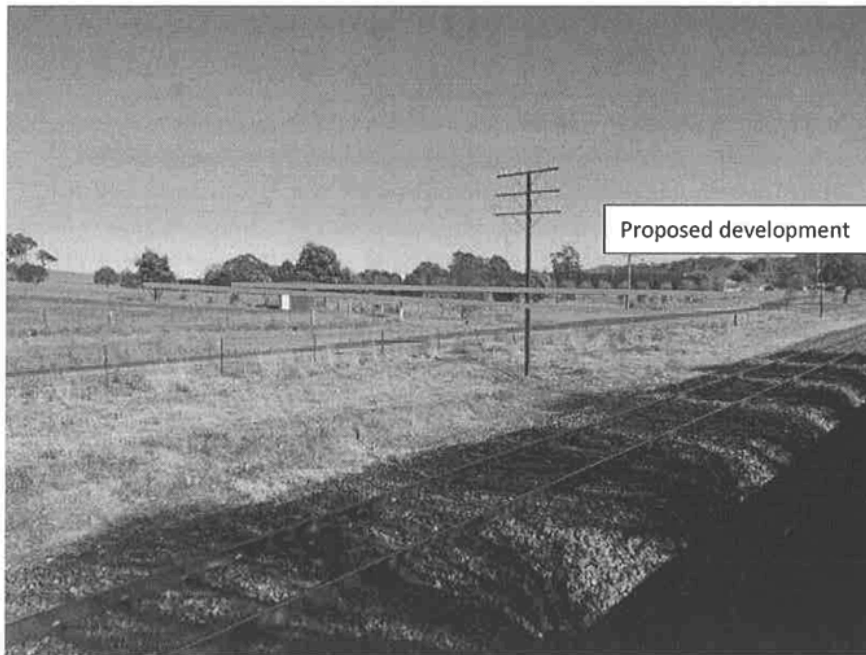


*Figure 3: Images of the poor condition of the fencing through the underpass.*

Lots 18 and 19 as defined in the proposal will impact on the privacy of our residence as they back onto lots 14 through 18 so the residences built on these lots will most likely have a westerly aspect which has them facing directly into our property. Whilst it is true that there is a natural buffer in the form of pine trees, there is no guarantee that these trees will not be removed in the future. Additional traffic via the current auxiliary driveway, which is proposed to service up to 3 residences, will impact [REDACTED] due to additional noise and dust.

The proposed development does not fit with the heritage look that the village actively markets for tourism purposes. These lots will be visible from the train station and this sort of development with a large number of houses in close proximity is more in line with urban developments than small country villages. Whilst we acknowledge that there needs to be room for the town to grow, the number of lots in this proposal is excessive. We would suggest that the proposal be amended to reduce the number of lots and have them all zoned as Y1 or Y2 to keep the rural aesthetic but release more land in the area.





*Figure 4: Image taken from railway station platform showing proposed development to be fully visible from town tourist attraction.*

This development proposal if approved would also set a precedent to rezone additional land to the east of this proposal towards the Orange Rd, where vineyards have been recently cleared, as they would meet similar criteria for rezoning. We don't believe that the heritage status and marketability of the town is best served by having a hillside of small housing blocks packed in together directly to the south of the town and visible from the town center and tourist attractions such as the railway station.

We would also contest the validity of the claim on page 18 of the proposal that the land can be rezoned as it is not involve prime agricultural land. Whilst it is our understanding that the land is, in fact, primarily used for residential purposes, we contest that the size is not suitable for sustainable agricultural production. There are many examples where modest lot sizes can be used for sustainable agriculture, just not with traditional agricultural practices, for example <https://permacultureapprentice.com/how-to-make-a-living-from-a-1-5-acre-market-garden/> is in Canada but the principles are the

transferrable. Just because the current owners choose not to farm their land, it is sufficient size and quality to do so.

[REDACTED] We are concerned that additional noise and other pollutants (fire smoke, dust from traffic etc.) due to increased density housing very close by as per this proposal, will decrease our livestock yield and therefore put unwanted financial pressure on our household. We also rely on growing many of our own vegetables and in times of low rain, we utilize the bore on our property to water the vegetables. Additional close by residences which may utilise ground water supplies will reduce the availability of this water and limit yield from the vegetable patch and also place undue stress on our living expenses.

We believe that our property occupies a desirable section of the property market which is a combination of a small parcel of land and also close proximity to town and the school without the feeling of living in suburbia. The value of our property relies on maintaining these attributes. This proposal and subsequent development of the adjacent land to the east will then have small residential lots on [REDACTED] property causing to be effectively in suburbia and losing the defining attributes and thus affecting resale value significantly.

We would also object to the clearing of trees to make way for the proposed development. The proposal shows an entire row of trees on the west of the property being removed as well as the trees which line the current driveway to the existing residence from Glenorie Rd. The tree lined driveway provides a nice aesthetic from Glenorie Rd and from an environmental point of view we would object to tree clearing of any kind.

Whilst the proposal notes that the available infrastructure such as water, gas, power & sewer are sufficient to support the proposal, telecommunications were not considered. The Millthorpe NBN tower is located at the parking lot of the bowling club and uses fixed wireless technology which is similar to 4G mobile technology. The proposed development sits between the NBN tower [REDACTED] may impact the signal strength as a physical barrier. [REDACTED]

In summary we are opposed to the proposed rezoning and subsequent development. Whilst we recognise that the town needs room to grow, the number of proposed lots is excessive and not keeping with the village theme and character. The proximity and the number of lots proposed places an unfair impact [REDACTED] lifestyle, living costs and enjoyment of [REDACTED]. The northern side of Millthorpe would be far better suited to small lot housing estates as an extension of similar current situations such as in Unwin and Stabback streets and preserve the southern side of Millthorpe for large lot semi-rural properties.

Thanks and regards,  
[REDACTED]

General Manager  
Blayney Shire Council  
PO Box 62  
BLAYNEY NSW 2799

**Re: AMENDMENT NO.9 TO THE BLAYNEY LEP 2012**

**Lot 286 DP 1018875 - 61 FOREST REEFS ROAD, MILLTHORPE**

I wish to lodge my objection to the above-mentioned Amendment regarding the rezoning of Lot 286 DP 1018875, 61 Forest Reefs Road, for reasons stated below:

**1. Lot density is beyond what would be reasonably acceptable.**

The development concept outlines 20 lots to be created (submission says 19, but the concept plan would indicate 20). Within the framework of the RU5 Village zone providing for a Minimum Lot Size (MLS) of 450m<sup>2</sup>, it would in fact allow in the whereabouts of 41 lots (excluding the subdivision potential of Lot 12). We do not consider this to be a “modest yield” nor is it in the best interest of the village. The proposed yield is not in keeping with the reasons many people choose to live in the village.

Agreed there is demand for land, however this density would ultimately hinder the uptake for vacant blocks within the development and hinder the appeal of the village as a whole.

A more appropriate action would be to allow a part rezone to RU5 applying to lots 1-6 fronting Glenorie Road. These lots appear to be in keeping with both the surrounding development, particularly to the west along Forest Reefs Road, and the topography/contour of the land being minimally disturbed. This would leave a residual parcel of 3.375ha.

This residual parcel should be rezoned R5 – Large Lot Residential. A minimum lot size of 1000m<sup>2</sup> -1500m<sup>2</sup> would be appropriate. The residual land would amount to 3.375ha, and, allowing for Lot 12 to remain as 1ha and Lot 13 as 5040m<sup>2</sup>, this would allow for a modest development in the whereabouts of 12 - 18 lots.

## **2. Destruction of the Heritage Charm**

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Millthorpe bases its entire tourism industry on the heritage charm of the Village, and having this type of development in such close proximity to the centre would be detrimental. The development would have a negative visual impact from the train station to the south.

It is imperative for the longevity of the Village as a “heritage destination” that all new build dwellings be of a sympathetic heritage style. Strict development controls must be placed on the residential dwellings within this development. The village does not need any more basic and generic brick veneer dwellings on its fringe. There is already enough negative impact of this style on the northern fringe of the village i.e. Stabback Street, Unwin Street.

## **3. Environmental Vandalism of Existing Tree Lines**

The concept plan would indicate the removal of the existing established tree lined driveway. We would strongly urge that these trees are retained. If the width of the lines does not allow for vehicular access, perhaps it could be used as a bike path/walking path, and the vehicular access be placed adjacent.

In addition, the existing conifer pine tree line on the western boundary should also be conserved. This is to not only provide a visual barrier of any type of new development from the existing neighbouring properties but also maintains the wildlife habitat it has become. Lastly this tree line will be invaluable to any potential development on the Lot as it would provide a wonderful windbreak, green barrier and winter weather protection.

## **4. Pedestrian and Vehicle Traffic**

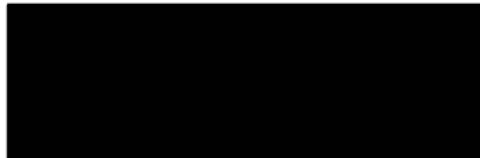
Currently there is a lack of pedestrian/cycle access throughout the village, particularly for the children accessing Millthorpe Public School. This lack of formal pedestrian/cycle access will be exacerbated from the location of the proposed development. The current situation of the railway underpass is already dangerous for the current foot/cycle traffic and an increased risk is undesirable.

Assumed that a proportion of the households within the proposed development would have children of primary school age. The increased traffic associated in and around the school and the thoroughfare along Victoria and Park Street will require an improvement in traffic management, drainage and parking.

**5. Omittance of page 13 of the document – is there any pertinent information pertaining to this development on said page?**

For the reasons stated above we strongly object to the rezoning of the whole of Lot 286 DP 1018875 to RU5 - Village. A part rezoning would be more appropriate and in keeping with the future strategic plans of the Millthorpe Village.

Regards,







**Response to Re-Zoning of Land from RU1 Primary Production to RU5 Village:  
'Cheneyvale' 61 Forest Reefs Road  
by the Millthorpe Village Committee**

**Background**

1. This response was authorised at the August meeting of the Millthorpe Village Committee held on Wednesday 16<sup>th</sup> August 2017. The owners of 'Cheneyvale' were in attendance and answered questions from members of the Committee.
2. Following the discussion the following motion was put and carried:

***"That the MVC write to BSC expressing concerns about the following major issues to do with the possible re-zoning and development proposal:***

- 1. Road access / underpass pathway***
- 2. Drainage***
- 3. Integrity/intensity of buildings".***

3. This response has been prepared by referencing the 'Cheneyvale' Planning Proposal, dated December 2016, the Blayney Settlement Strategy 2012 and the Blayney Local Infrastructure Contributions Plan, 2013.
4. The MVC notes that the current owners of the land emphasised that the proposal was for land re-zoning. They reiterated that there is no DA lodged and one cannot be lodged until the re-zoning has been approved by the NSW Government. The owners also noted that IF re-zoning occurred they would have to submit a revised development concept and that it "would be in keeping with the heritage nature of the village".

**Millthorpe Village Committee (MVC) and its Position on the Proposed Re-zoning of the land identified.**

The MVC works in collaboration with the Blayney Shire Council (BSC) to provide amongst other functions, advice on future land re-zonings and development proposals that may impact both positively and negatively on the infrastructure, heritage, land-use and social amenity of the Village. The MVC has in the past, provided input into various planning documents including LEP, the Millthorpe Settlement Strategy and other Blayney Shire Strategic planning instruments and documents. The MVC actively monitors all proposed developments for the Village and has a strong success record in moderating the vision and plans of individual developers and at times, those of BSC.

While the MVC is not opposed to the sensitive, staged development and expansion of the Village, we are insistent that developers and their proposals must add value to the overall look and experience of living, visiting and working in Millthorpe. Development in a heritage village must complement and enhance what is already here. Future land re-zoning and residential development must NOT be allowed to turn Millthorpe from a reasonably uniform and compact series of historical streets and roads, into a series of 21<sup>st</sup> century 'suburban cul-de-sacs'.

Therefore, the position of the MVC in regards to proposed re-zoning of 'Cheneyvale' from RU1 to RU5 is that we oppose the proposed land re-zoning and residential development along Glenorie Road, until such time that it becomes clear how the overall village experience will be enhanced and what pre-development infrastructure projects (i.e pedestrian footpaths, improved water management, improved railway underpass road approaches will be undertaken in the vicinity of the proposed land re-zoning, in advance of any future residential development.

Table 1 below outlines the MVC responses to specific sections contained in the proposal.

*Table 1 Responses to Specific Sections of the Proposal Document*

Re-Zoning Reference	MVC Response
<b>1.2 Basis for Planning</b>	<p>a. The justification for the proposal is based on the 2012 Blayney Settlement Strategy. This document is now 5 years old and due for review. The alienation of highly productive farm land is a hot button issue in the State and the dividing of productive land into hobby blocks is of concern. The suggestion that the southern portion of the proposal would act as a "natural transition" to the south west larger blocks assumes that the south west investigation area is being actively looked at by the current land owner. There is no evidence that this area is being considered for development at this stage.</p> <p>b. Cheneyvale is not a natural extension of the Village. Cheneyvale separated from the Village by the railway tracks and Glenorie Road. The intrinsic value of Cheneyvale is that it is one of the few remaining examples of farmland close to but on the outskirts of a village. The re-zoning of the land will turn the current historic hillside scenic vista of the southern side of Glenorie Road into a patch work of land use visible from the village and surrounding hills.</p> <p>c. [REDACTED] Land has already been zoned RU5 and that can supply up to 30 blocks, which is more than enough to satisfy demand for another 10-15 years.</p>
<b>1.3d Surface Water and Drainage</b>	<p>The proposal understates the drainage and water issues. Water drains along Glenorie road is joined by run-off from the hillsides and existing residential concessional lots flows towards the intersection of Forest Reefs Road. Water from Pym and Victoria streets is funnelled into an open drain running parallel to the railway line and joins the flow from Glenorie Road. These flows then go under Forest Reefs road and end up in Millpond. BSC</p>

Re-Zoning Reference	MVC Response
	has not provided adequate infrastructure to address water run-off and in fact, has been subject to sustained litigation by a resident about Council's lack of water management infrastructure in the area. Recent improvements to the resident's property have taken place but the root causes of the water flows have not been addressed. There is a dam at the northern tip. In periods of recent heavy rain, (2010, 2016) water runs into this dam and then out again to Millpond for over 3 months. Storm water management is a major constraint and any developer would need to be forced to rectify potential flooding, and run as part of the re-zoning activity.
<b>1.3f Roads and Access</b>	Glenorie Road is a by-pass road and carries large trucks servicing farms and the Mine. The difficult intersection of Glenorie Road and Forest Reefs Road would need re-alignment and re-design to make the road suitable for large scale future residential use of the site if it was re-zoned.
<b>1.5 Development Concept</b>	The proposed residential concept is totally different to the existing residential lots along Forest Reefs Road. It is not a logical extension. Historically the lots were all productive farmlets. Over the decades, parcels have been subdivided off the original farms. Currently there is a mix of small and large lots ranging from around 450m <sup>2</sup> to over 2 hectares. This is streetscape shows how this service road developed. A new development of 11 lots along the northern tip of Cheneyvale, would not fit in.
<b>4.1c. Justification: Community Benefit</b>	There is no net community benefit. This proposal benefits the developer and up to 19 purchasers of lots. It will put pressure on road, water and existing sewerage treatment capacity.
<b>4.2 Relationship to Strategic Planning Framework</b>	<p>The purpose of the re-zoning application is to allow for possible future residential development.</p> <p><b>a. Strategy Matter 4.2.</b> Disagree. There has been a strong take up of residential lots. Many of these houses and many renovated existing houses are not occupied and are either holiday homes or for rent through Airbnb and similar sites. Escape expenditure rates in Millthorpe are increasing.</p> <p><b>b. Strategy Matter 4.5.</b> Dot point 5 appears to contradict earlier arguments put forward that Lots 1-11 will be a "natural extension" to those lots on Forest Reefs Road. The developer objects to providing a link to Forest Reefs Road and to the "investigation area to the south-west, stating that a link is just too difficult. This is not a valid objection.</p> <p><b>c. Strategy 4.9.</b> It is unclear if the proposal will include any affordable housing. Higher density housing and affordable housing options are a need. However, a cul-de-sac is not high density affordable housing. The MVC suggests that any future development needs to include less intensive land-use and a mix of detached, semi-detached and strata style options.</p> <p><b>d. Strategy Matter 4.10.</b> Millthorpe is built between and on 5 hills of up to 990metres high. The hills to the north of the Village offer views across the whole landscape. Residents and visitors who go the recreation sites and</p>

Re-Zoning Reference	MVC Response
	<p>walking trails will see this development. The proposal acknowledges that the area and the land is flood prone. Historically land slated for Lots 1-5 and 17-19 are boggy and get waterlogged. The MVC objects to any development until BSC rectifies water and drainage issues along Glenorie Road Forest Reefs Road and suggests that hydrography surveys be conducted to ascertain if natural springs surface on the site and how disturbing these can affect water users further to the west.</p> <p><b>e. Strategy 4.12</b> The evidence in the proposal on the potential impact on the capacity of the existing Millthorpe sewerage treatment works lacking in detail. There is no information on the potential impact of the Village rating system of this and the infrastructure needed to join the sewer system.</p> <p><b>f. Strategy 4.20</b> This is an example of urban sprawl. A majority of the recent lots have been infill next to or behind existing residences or on existing vacant blocks. Cul-de-sac developments are alien to Millthorpe. Three street extensions only feature this design and they are in low traffic areas. This design is not in keeping with the majority of the streetscapes. The lots closest to Glenorie Road and up to the original homestead will look like suburbia. The fact that there are larger lots to the south of the proposed development is immaterial.</p>
<b>4.3 Environmental, Social, Economic impact</b>	<p><b>a. Traffic Impacts.</b> The proposal underestimates the impact and safety of road users. The exit onto Glenorie Road from the development is too close to the intersection of Forest Reefs road and Glenorie Road as large doubles and other trucks travelling east on Forest Reefs Road and turning into Glenorie Road need at least 500 metres to correct themselves after the tight right hand turn. Cars turning left or right out of the development may cross paths with trucks setting up potential safety issues.</p> <p><b>b. Noise Impacts.</b> 19 homes and up to 19 barking dogs crammed onto a small area. This is a serious issue in Millthorpe already.</p>

## CONCLUSION

Experience has taught the MVC that development in the Village has to be monitored carefully. Experience tells us that changes in land re-zoning, without improving existing underlying deficits in infrastructure in proximity to the development, results in less than desirable outcomes in terms of overall social benefit.

The proposal to re-zone Cheneyvale from RU1 to RU5 will result in a possible future residential development of blocks down to 450 square metres which could result in more than 35 housing blocks being developed on the site. This level of intensity will create pressure on the immediate environs. The re-zoning and residential development is located too close to a badly designed intersection. The area is a drainage trouble spot and poorly served in terms of road clearances and shoulders, street lighting and pedestrian access. The re-zoning proposal includes no detail nor timeframe as to the contributions that the owners of the land (and the proponents of the residential development concept) will need to make

to solve the infrastructure issues identified above. This land re-zoning proposal does not convince the MVC that the general welfare and social amenity of the village will be improved and protected. While acknowledging that the accompanying residential development is merely a concept at this stage, the MVC opposes intensive developments such as this proposal envisions. The MVC would like to see a requirement for a mix of affordable, dual occupancy and single dwellings on any new land zoned RU5 in the Village. The MVC is interested in solutions. None of our concerns are insurmountable. The MVC requires more detail on each of the issues raised in our response. In particular, how will BSC and the developer address the number of obvious infrastructure deficits in the surrounding area as part of its application for re-zoning.

The MVC is concerned that the proposed re-zoning proposal is in fact a "Trojan Horse", that will inevitably lead to overly intensive development on the site. Millthorpe badges itself as "Heritage with Style". We also are firm in our desire for "development with style".

Sincerely,



*Millthorpe Village Committee on behalf of the Millthorpe Village Committee, its executive and its members.*

**21<sup>st</sup> August 2017**



Level 6, 10 Valentine Avenue  
Parramatta NSW 2150  
Locked Bag 5020  
Parramatta NSW 2124  
DX 8225 PARRAMATTA

Telephone: 61 2 9873 8500  
Facsimile: 61 2 9873 8599  
[heritagemailbox@environment.nsw.gov.au](mailto:heritagemailbox@environment.nsw.gov.au)  
[www.heritage.nsw.gov.au](http://www.heritage.nsw.gov.au)

Ref No: DOC17/386636

Blayney Shire Council  
PO BOX 62  
Blayney  
NSW 2799

By email: [council@blayney.nsw.gov.au](mailto:council@blayney.nsw.gov.au)

Attention: Patsy Moppett

Dear Ms Moppett,

**Planning Proposal to rezone Lot 286, DP 1018875, 61 Forest Reefs, Millthorpe**

I refer to your letter received 25 July, 2017 regarding the above-mentioned planning proposal which seeks to amend the planning controls to rezone land from RU1 Primary Production to RU5 Village, to enable a residential subdivision comprising 19 allotments.

The subject property is not a listed item on the State Heritage Register, however, is within the locally listed Millthorpe Heritage Conservation Area within Schedule 5 - 'Environmental heritage' of Blayney Local Environmental Plan 2012.

As the subject site is not a State Listed Heritage Item, Blayney Shire Council is the consent authority. However, it is noted that there has been no heritage assessment of the conservation area as part of this application. It is, therefore, recommended that a Heritage Impact Assessment be undertaken prior to further consideration of the planning proposal by Blayney Council to ensure that the proposed subdivision would not create an adverse impact to the Heritage Conservation Area.

If you have any questions regarding the above matter please contact Bronwyn Smith, Senior Heritage Assessment Officer, at the Heritage Division on 9873 8604 or at [Bronwyn.smith@environment.nsw.gov.au](mailto:Bronwyn.smith@environment.nsw.gov.au)

Yours sincerely

**Rajeev Maini**  
Manager, Conservation  
Heritage Division  
Office of Environment & Heritage  
**As Delegate of the NSW Heritage Council**  
14 August, 2017



## Planning Proposal – Amend Blayney Local Environmental Plan 2012 – 61 Forest Reefs Road, Millthorpe

### Summary of issues raised during public consultation

Name	Issues – against	Comments
Submission 1	<ul style="list-style-type: none"> <li>• Increase in noise due to more people, more children, more cars and dogs, creating an instant suburban environment.</li> <li>• The proposal would spoil the quiet country lifestyle, the peace &amp; quiet, which we have enjoyed since 1981. The proposal would be more suited to Orange or a larger community.</li> <li>• Health issues require physical and mental rehabilitation at home. The meditation is successful where the existing landscape and tranquility are suitable, being necessary to avoid health issues.</li> <li>• Neighbouring properties graze sheep and have space around their dwellings, and the proposal may have a cumulative effect with others wanting to subdivide in a similar way.</li> <li>• The ideal country lifestyle would be no more.</li> </ul>	<ul style="list-style-type: none"> <li>• Noted. This owner's property is approx. 170m to the west of the site, with 2 other properties in between. Noise impacts are considered appropriate.</li> <li>• Noted. The allotment is identified in the Blayney settlement strategy as an allotment appropriate for future investigation village zone</li> <li>• Noted. It is considered the proposed rezoning will not have any adverse health impacts.</li> <li>• The subdivision would have larger lots to the south, with no potential for further subdivision. The MLS of 450sqm already exists along Forest Reefs Road, and owners there already have the option to subdivide smaller.</li> <li>• Noted. The proposal is for the allotment to become village zone with large allotments to the south creating transition to the RU1 Primary Production land.</li> </ul>
Submission 2	<ul style="list-style-type: none"> <li>• No objection to the rezoning.</li> </ul>	<ul style="list-style-type: none"> <li>• Noted.</li> </ul>

	<ul style="list-style-type: none"> <li>• Object to the concept proposal of 19 lots, and realise that this might change if the rezoning were to be approved.</li> <li>• Structures which might be allowed on Lot 12 – this is prime agricultural land. It is ideal for grazing. This lot is bordered on 2 sides by larger properties used for grazing.</li> <li>• Development of Lot 12 would be in full view of our residence – unpleasant for both parties. A tree buffer would protect privacy.</li> <li>• Impact of development of Lot 12 would drop property value due to loss of views to the west to paddocks, trees and Mt Canobolas.</li> <li>• Removal of established vegetation (ie. trees). This refers to the existing driveway lined with ornamental pears which are visually stunning from spring to autumn, seen from various parts of the village. Their removal would be a great loss to the village.</li> <li>• The visual impact of development on Lot 11. The existing trees on the proposed Lot 11, the native tree buffer and the pine tree buffer. If these were destroyed, once again the development of Lot 11 would be in full view of their residence.</li> <li>• The types of boundary fencing and buffer zones on the eastern boundary of the property. The existing rural fencing is in good condition. The new development may require replacement of the fence which would require further consultation.</li> </ul>	<ul style="list-style-type: none"> <li>• The indicative layout supplied with the PP is indicative only. A DA is required to be lodged for any future subdivision. Due to the constraints identified, the potential for further subdivision greater than 19 lots is considered unlikely.</li> <li>• Sustained agricultural land use (in terms of the DPI definition of agriculture*) cannot occur on this land due to its size. It is agreed that the land can be used for grazing.</li> <li>• Provision/retention of tree buffers can be considered with any future application for a dwelling on proposed lot 12.</li> <li>• Property values are not a matter for planning assessment. Additionally this is a PP and not a DA, not specific structure is proposed.</li> <li>• These trees could be removed at any time at the whim of the property owner, as they are on private land. There is no tree preservation order in Blayney Shire.</li> <li>• This matter could be considered if a future DA is lodged for subdivision.</li> <li>• As above. Fencing is guided by the Dividing Fences Act, and are not be a part of this assessment.</li> </ul>
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	<ul style="list-style-type: none"> <li>• A decent tree buffer is required along the eastern boundary of 61 Forest Reefs Road. To delineate a "rural to village" transition.</li> <li>• The plan in the PP shows two Lot 18s, and no lot 19.</li> <li>• The PP suggests that the cul de sac would serve only a small number of lots. There would be 14 lots off this cul de sac.</li> </ul>	<ul style="list-style-type: none"> <li>• Provision/retention of tree buffers can be accommodated within a development consent.</li> <li>• This matter has been addressed and a new plan provided by the applicant.</li> <li>• Noted. This would be considered if a future DA is lodged for subdivision.</li> </ul>
Submission 3	<ul style="list-style-type: none"> <li>• Unsuitable for intense urban development, and a radical departure from the principals of ordered and sympathetic development in the Heritage Conservation Area.</li> <li>• Redefined from prime rural to village – why was this not flagged in the current LEP?</li> <li>• The type of development which will be able to occur would be incompatible with this rural and semi-rural area of Millthorpe eg. child care centres, community facilities, dwellings, light industries, neighbourhood shops, places of public worship roads, schools etc</li> <li>• The main aims of the BLEP 2012 are to complement and enhance the unique character and amenity [of Millthorpe]. The development would represent a totally incongruous and foreign development in a historic area of Millthorpe that has been rural &amp; semi-rural for 150 years.</li> <li>• Traffic: Glenorie Road is manifestly unsuitable as it has no shoulders, and is prone to excessive stormwater during high rainfall. Poor visibility due to topographical location, Would require a major upgrade (borne by the ratepayers?)</li> </ul>	<ul style="list-style-type: none"> <li>• Noted. The front part of the allotment is identified in the BCO sub regional strategy as an allotment appropriate for future investigation village zone. A Heritage Impact Assessment has also been provided by the applicant.</li> <li>• The front part of the allotment is identified in the BCO sub regional strategy as an allotment appropriate for future investigation village zone.</li> <li>• Each such development would be considered on its merits, should it arise.</li> <li>• Council's intention would be to address the BLEP aims, the character of the existing town and the associated relevant heritage values.</li> <li>• The purpose of the PP is to identify constraints. Stormwater upgrades and road redesign would be addressed under a development application for future subdivision. Council's Engineer advises that the increase in</li> </ul>

	<ul style="list-style-type: none"> <li>• Sewer: The area is not within the current Millthorpe sewer scheme. Infrastructure costs would only partly be borne by the developer.</li> <li>• Infrastructure: Power, gas and other utilities would be required. Ratepayers should not be subsidizing this.</li> <li>• Location: In a rural area, RU1 Primary Production. The area on the western side of the rail line has no suitable infrastructure. The rail line separates the development from schools, shops and other</li> </ul>	<p>concentrated stormwater run-off created by the proposed subdivision would require the network of drainage pipes across the intersection of Glenorie Road and Forest Reefs Road to be upgraded.</p> <p>Council's Engineer advises that Glenorie Road and Forest Reefs Road may need to be reconstructed to achieve better shape and drainage which would be considered at DA assessment.</p> <ul style="list-style-type: none"> <li>• A preliminary review of the sewer pumping station (SPS) and its current daily discharges would suggest it has capacity for the anticipated increase as a result of this development. However, Council's Engineer advises that with regard to sewer there is no current sewer reticulation in the proximity of the proposed development. A design will be required to establish a new sewerage reticulation network to link to the existing gravity sewerage system.</li> <li>• The cost of utility extension would be borne by the developer. Council's Engineer advises that electricity, telecommunications and gas services would need to be extended throughout the subdivision. The cost of infrastructure extension would be borne by the developer.</li> <li>• The development could be comparable with development in the RU5 zone further along Forest Reefs Road, where that is also within the HCA.</li> </ul>
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	<p>facilities. The development is out of character and density with current development in this semi-rural area.</p> <ul style="list-style-type: none"> <li>• Manifestly and obviously incompatible with the development principles of the Heritage Conservation Area.</li> <li>• Available lots: Millthorpe is already well served with potential lots for future growth including more than 2 dozen undeveloped lots on the northern side of Forest Reefs Road. I am aware that a number of local landholders with established lots have had development applications refused with no reason given.</li> <li>• If Millthorpe is short of current building lots, then why are local land holders being refused development on lots subdivided in previous years for local housing.</li> <li>• How do the refusals tie in with the sudden need for such an incompatible, expensive and out of character subdivision in a rural area?</li> <li>• Like the previous north Millthorpe subdivision of 12 years ago, this amendment looks designed to serve the wishes of a local developer, whilst ignoring the concerns, effective and complementary landuse, and objective need for future development in the village.</li> <li>• How can Council even be considering this development?</li> </ul>	<ul style="list-style-type: none"> <li>• A Heritage Impact Assessment has also been provided by the applicant.</li> <li>• It is not considered that Millthorpe is well served with lots developed and on the market, this PP will assist with increasing supply. No DAs for subdivision have been refused by Council since introduction of BLEP 2012.</li> <li>• Every developer has the right to lodge an application for consideration. Council then have the responsibility of considering the matter on its merits.</li> <li>• Council is required to consider each application on its merits.</li> </ul>
Submission 4	<ul style="list-style-type: none"> <li>• Strongly object due to local traffic congestion, local noise levels, infrastructure strain and visual impacts, not in keeping with the heritage brand that the village promotes.</li> <li>• Road congestion: Glenorie Road, Forest Reefs Road and the rail underpass, plus the several new driveways opening directly onto Glenorie Road. The roads and the existing intersection are already</li> </ul>	<ul style="list-style-type: none"> <li>• Road upgrading would be considered in any future DA lodged. Noise impacts at this stage are unknown, but not expected to any different to the developed are to the west of the site, along Forest Reefs Road. Visual impact can be addressed through retention and enhancement of existing landscape features.</li> <li>• Road upgrading would be considered in any future DA lodged. Council's Engineer preliminary advises that Glenorie Road and Forest Reefs</li> </ul>

	<p>congested, particularly at Cadia shift changes. Such traffic already cuts the corner when heading east.</p> <ul style="list-style-type: none"> <li>• Walking and cycling to the village, as proposed, but the current roads are too dangerous for this. The proposal would exacerbate this. There is no verge or footpath safe enough, and pedestrians already walk on the road. This was raised in the active travel survey a couple of years ago, but if anything the infrastructure has deteriorated.</li> <li>• Lots 18 &amp; 19 will directly face our residence and affect privacy. There is an existing pine tree buffer, but this may be removed in the future.</li> <li>• Additional traffic along the Lot 19, 20 driveway will impact our residence due to noise and dust.</li> <li>• The development does not fit with the heritage look that the village actively markets for tourism purposes. Will be visible from the station and the town centre and from other tourist attractions. More in line with urban development than with small country towns.</li> <li>• There needs to be room to grow but not this many lots. Should be less and zoned Y1 or Y2 [this is a MLS reference - 1ha or 1.25ha] to keep the rural aesthetic but release more land in the area.</li> <li>• Sets a precedent to rezone more land towards the Orange Road, where vineyards have been cleared.</li> </ul>	<p>Road may need to be reconstructed to achieve better shape and drainage.</p> <ul style="list-style-type: none"> <li>• Provision/retention of tree buffers can be considered with any future application for a dwelling.</li> <li>• Suitable surfaces can be required by Council to address noise and dust. However, it is noted no DA has been lodged for subdivision.</li> <li>• Millthorpe is an urban environment now. Future construction, design and landscaping could provide a "heritage look" in the new subdivision, but it is the heritage values that are more significant to Millthorpe, and these would not change.</li> <li>• This plan is indicative only, and the applicant has advised that it is a worst case scenario. The final number of lots would be proposed in a future DA for subdivision.</li> <li>• These lands are not identified in the Blayney settlement strategy review for village zoning. The Blayney Settlement Strategy Review proposed for 2018 for Blayney will consider expansion of the Millthorpe village and surrounds. Blayney cannot speak for the landuses occurring within the Orange LGA.</li> </ul>
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	<ul style="list-style-type: none"> <li>• The claim that the land is not prime agricultural land, the lot size is not suitable for sustainable agricultural production, but it can be used for sustainable agriculture, not just with traditional methods such as permaculture.</li> <li>• We currently use our land for small farm grazing to feed a large family. Additional noise and pollutants due to increased housing density will decrease our livestock yield and place unwanted financial burden on our household.</li> <li>• We grow our own vegetables and use a bore in times of low rainfall. Additional nearby groundwater users may reduce the availability of this water, limit yield, and place undue stress on living expenses.</li> <li>• The proposal will affect the value of our land for resale, which depends on attributes such as rural living close to town.</li> <li>• We object to tree removal required for the development, including trees along the western boundary of the property, as well as those along their driveway. It would remove a nice aesthetic from Glenorie Road, and is not good from an environmental point of view.</li> <li>• Telecommunications: the land is between our property and the NBN tower, and new development may impact the signal strength as a physical barrier, putting at risk our small online trading business.</li> <li>• The northern side of Millthorpe is more suited to this in such areas as Unwin and Stabback Streets, preserving the southern side for large lot semi-rural properties.</li> </ul>	<ul style="list-style-type: none"> <li>• The land is not currently being used for sustainable agriculture. It's potential depends upon landownership and landuse choice by that landowner.</li> <li>• The subdivision would be established within all relevant legislation policy and guidelines. The management of the new lots beyond that point is beyond Council's control.</li> <li>• The existence of the bore must be considered by the developer and water quality protected.</li> <li>• The value of land is not a planning consideration.</li> <li>• The site is private land and the trees could be removed at any time. This would be considered if a DA for subdivision is lodged in the future.</li> <li>• The telecommunications tower was established to address reception across the village area. The amount of receivers does not affect the signal strength.</li> <li>• The northern side of Millthorpe was identified predominantly as large lot residential in the Previous Strategy. This PP proposed lot sizes more in keeping with the existing established lot subdivision sizes along Forest Reefs Road.</li> </ul>
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Submission 5	<ul style="list-style-type: none"> <li>• To be rezoned to RU5 would provide for an MLS of 450sqm, and given the proposed number of lots would give the potential for 41 new lots. This is not a "modest yield", nor is not in keeping with the reasons why many people choose to live in the village.</li> <li>• Such a lot yield would hinder the uptake of vacant blocks, and hinder the appeal of the village as a whole.</li> <li>• Apply the RU5 to Lots 1-6, and the residual lot could be R5 with a MLS of 1000sqm-1500sqm, allowing for a more modest development.</li> <li>• Destruction of the heritage charm: Millthorpe's entire tourism industry is based on the heritage charm, and this development would be detrimental, with a negative visual impact from the station. All new dwellings should be of a sympathetic heritage style for the good of the village as a heritage destination.</li> <li>• More strict controls should be in place.</li> <li>• Environmental vandalism of existing tree lines: removal of the existing tree lined driveway is indicated. We urge that these be retained. Use the driveway as a bike path/walking path, and place vehicular access adjacent.</li> <li>• The conifers on the western boundary should be conserved. This provides a visual barrier, and maintains the wildlife habitat. It would also provide a windbreak, green barrier and winter weather protection.</li> <li>• Lack of pedestrian/cycle access throughout the village, would be exacerbated by the development. The railway underpass is already dangerous.</li> </ul>	<ul style="list-style-type: none"> <li>• MLS is the absolute minimum size a lot can be. The layout suggested in the PP is indicative only. A DA is required to be lodged for subdivision if the allotment is rezoned.</li> <li>• There are very few vacant lots remaining in Millthorpe. The final lot yield is yet to be determined. The PP is indicative only.</li> <li>• The final yield may change depending upon subdivision design. The proposed layout in the PP is indicative only.</li> <li>• This suggests that if the new dwellings are of a sympathetic heritage style, the proposal would have much less visual impact. This can be addressed through adherence to the provisions of Council's new DCP.</li> <li>• Council's new DCP commenced on 2 July 2018, and is more stringent than previous DCP controls.</li> <li>• The site is private land and the trees could be removed at any time. However, an opportunity exists if a future DA is lodged for subdivision to consider retaining and enhancement of landscaping and access on the site, which would be reinforced through conditions of consent.</li> <li>• The provision of pedestrian/bicycle access throughout the village should be addressed through the village enhancement program by Council.</li> </ul>
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	<ul style="list-style-type: none"> <li>Increased traffic in and around the school and the Victoria/Park Street thoroughfare will require an improvement in traffic management, drainage and parking.</li> <li>Page 13 of the PP was not included. Is there pertinent information on said page?</li> </ul>	<ul style="list-style-type: none"> <li>This development is not located near the school and this intersection. Impacts on both are unknown.</li> <li>This page was inadvertently missed during scanning and contained information relating to settlement patterns, historic population growth, and projected supply and demand.</li> </ul>
Submission 6	<ul style="list-style-type: none"> <li>MVC is not opposed to the sensitive, staged development and expansion of the village. Developers and their proposals must add value to the overall look and experience of living, visiting and working in Millthorpe.</li> <li>Must not turn Millthorpe from a uniform and compact series of historical streets into a series of 21<sup>st</sup> century suburban cul de sacs.</li> <li>Object to the rezoning and subdivision until such time as it becomes clear how the overall village experience will be enhanced and what infrastructure will be put in place in advance of any future residential development.</li> <li>Experience tells MVC that changes in land zoning, without improving existing underlying deficits in infrastructure results in less than desirable outcomes for overall social benefit.</li> <li>Possible blocks will result down to 450sqm, and therefore some 35 housing blocks. This level of intensity would create pressure on the immediate environs.</li> </ul>	<ul style="list-style-type: none"> <li>This is also Council's expectation for the development of the village generally.</li> <li>The final design of the subdivision may change. The current plan is indicative only. There are already cul de sacs in Millthorpe.</li> <li>The PP provides indicative information only. Should the rezoning take place, more in depth service provision would be investigated when a DA is lodged for subdivision.</li> <li>Council's Engineer has already applied an initial infrastructure assessment and flagged significant upgrades which would be required for the development. Any enhancement works would be applied under conditions of consent.</li> <li>MLS is the absolute minimum size a lot can be. The layout suggested in the PP is indicative only. A DA is required to be lodged for subdivision if the allotment is rezoned.</li> </ul>

	<ul style="list-style-type: none"> <li>• Located close to a badly designed intersection. The area is a drainage trouble spot, narrow road clearances, street lighting and pedestrian access.</li> <li>• No detail given as to the contributions the developer will need to make to solve the infrastructure issues.</li> </ul> <p>Basis for planning:</p> <ul style="list-style-type: none"> <li>• The BLEP 2012 is now 5 years old and due for review.</li> <li>• The dividing of productive land into hobby blocks is of concern.</li> <li>• The property is not a natural extension of the village. It is separated by the rail line and Glenorie Road.</li> <li>• The rezoning would turn the current historic hillside scenic vista to the south into a patch of landuse visible from the village and surrounding hills.</li> <li>• Land at 1279 Millthorpe Road has already been zoned RU5 and can supply up to 30 blocks.</li> </ul>	<ul style="list-style-type: none"> <li>• This would be considered if a DA is lodged for future subdivision of the allotment.</li> <li>• Contributions are conditioned in development consents for subdivision. This is currently only a PP for rezoning. The relevant contributions are applied per new block created and set down under Council's annual operational plan</li> <li>• Agreed, it is more paramount to review the BCO sub regional strategy and Blayney Settlement Strategy.</li> <li>• The land is not considered to be significantly productive agricultural land, but only on a hobby block level.</li> <li>• Any "natural" extension to the north and east would certainly be into more productive agricultural land within the Orange LGA. The land to the south and west is bound by the railway line. The natural extension to allow any growth for the town is to the south west, towards and around existing small holding lots.</li> <li>• Only 1 lot (proposed lot 12) is proposed on the hillside, there are existing structures already in place on the neighbouring property to the east.</li> <li>• This land (14.53ha) is zoned half R5 and half RU5. The existing consent has lapsed, so its potential is subject to the wishes of a future developer, not Council.</li> </ul>
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	<p>Surface water and drainage:</p> <ul style="list-style-type: none"> <li>The proposal understates the drainage and water issues. All surrounding streets and land drain down to Millpond. Council has not provided adequate infrastructure to date. Even the dam on the subject land flows over into Millpond in times of heavy rain. Stormwater management is a major constraint and any developer would need to be forced to rectify potential flooding as part of the rezoning process.</li> </ul> <p>Roads and access:</p> <ul style="list-style-type: none"> <li>Glenorie Road is a by-pass road servicing farms and Cadia. The intersection with Forest Reefs Road would require realignment and redesign.</li> </ul> <p>Development concept:</p> <ul style="list-style-type: none"> <li>The concept is totally different to the existing lots along Forest Reefs Road, and not a logical extension.</li> </ul> <p>Justification community benefit:</p> <ul style="list-style-type: none"> <li>There is no net community benefit, it benefits the developer and 19 purchasers, putting pressure on road, water and existing sewerage treatment capacity.</li> </ul> <p>Relationship to strategic planning framework – for possible future residential development:</p> <ul style="list-style-type: none"> <li>Has been a strong take up of residential lots, many are not occupied or rented out. Escape expenditure rates in Millthorpe are increasing.</li> </ul>	<ul style="list-style-type: none"> <li>Council's Engineer has commented on the stormwater issues and would require the network of drainage pipes across the intersection of Glenorie Road and Forest Reefs Road to be upgraded, by the developer.</li> <li>Council's Engineer advises that Glenorie Road and Forest Reefs Road may need to be reconstructed to achieve better shape and drainage. This would be considered if a DA for subdivision is lodged.</li> <li>The existing subdivision along Forest Reefs Road was created in the late 1800s (DP6146). The proposed rezoning would extend the existing RU5 zone back toward the village and other RU5 urban zoned land. Extension of RU5 to the south west is not appropriate as the landuse pattern is more rural than urban.</li> <li>The final subdivision lot yield may be less than 19. The infrastructure upgrades will benefit the village, and new landowners would contribute to the community on a number of social and economic levels.</li> <li>Empty houses and rental accommodation as not matters for consideration by the developer in the PP.</li> </ul>
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	<ul style="list-style-type: none"> <li>• A natural extension – but developer refuses to provide a link to Forest Reefs Road and to the investigation area to the south west.</li> <li>• Affordable housing – unclear if this will be provided. It is needed. Any future development needs to include less intensive landuse and a mix of detached, semi-detached and strata style options.</li> <li>• Millthorpe is built on hills which provide views across the whole landscape.</li> <li>• The application acknowledges that the land is boggy and gets waterlogged. Water and drainage issues (including attention to natural springs) must be rectified.</li> <li>• No detail on the impact on the capacity of the existing Millthorpe sewerage treatment works.</li> <li>• Recent development has been infill, and cul de sac development is alien to Millthorpe. The few that exist are in low traffic areas.</li> <li>• The lots closest to Glenorie Road will look like suburbia.</li> </ul>	<ul style="list-style-type: none"> <li>• This same submission suggests that this is not a natural extension. Links to the land to the south west were a suggestion under the existing Settlement Strategy. The links are not the responsibility of this developer, without further review of the Strategy and the recent development of land to the south west over time.</li> <li>• The developer is seeking a rezoning under this PP. The development of housing for individual lots at a later date will be the responsibility of future landowners. However, the developer's vision for the PP subdivision is for conventional single residential accommodation.</li> <li>• Noted.</li> <li>• Council's Engineer has examined the situation and would require considerable stormwater upgrading works by the developer.</li> <li>• Council's Engineer advises that with regards to sewer the existing system can cater for the development. However new infrastructure would be required to be provided by the developer as there is no reticulation system in the proximity of the site.</li> <li>• There are existing cul de sacs in Millthorpe.</li> <li>• They would be comparable with existing RU5 development further along Forest Reefs Road.</li> </ul>
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	<p>Environmental, social and economic impacts:</p> <ul style="list-style-type: none"> <li>The proposal under estimates the impact and safety of road users – Glenorie Road/Forest Reefs Road intersection, heavy vehicles travelling east may conflict with cars.</li> <li>Noise impacts: 19 homes, 19 barking dogs in a small area is a serious issue.</li> </ul> <p>MVC acknowledges that this is a concept at this stage, but opposes intensive development such as this.</p> <ul style="list-style-type: none"> <li>There should be a requirement for a mix of affordable, dual occupancy and single dwellings.</li> <li>More detail is required on each of the issues raised, in particular, how will the infrastructure deficits be addressed.</li> <li>Millthorpe is “Heritage with Style”, and should also be “development with style”.</li> </ul>	<ul style="list-style-type: none"> <li>Council's Engineer has assessed the development as set down under the PP, and both Glenorie Road and Forest Reefs Road will require upgrades to cater for all traffic.</li> <li>The barking of dogs is not a matter for this PP.</li> <li>This is at the discretion of the developer.</li> <li>Council's Engineer advises that Glenorie Road and Forest Reefs Road may need to be reconstructed to achieve better shape and drainage. This would be considered if a DA for subdivision is lodged.</li> <li>A definition of “development with style” is unknown.</li> </ul>
Office of Environment and Heritage, Heritage Council	<ul style="list-style-type: none"> <li>It is recommended that a Heritage Impact Assessment be undertaken prior to further investigation of the planning proposal by Blayney Shire Council to ensure that the proposed subdivision would not create an adverse impact on the Heritage Conservation Area.</li> </ul>	<ul style="list-style-type: none"> <li>This matter was referred to the applicant and a Heritage Impact Assessment provided.</li> </ul>

\*To be sustainable, agriculture must:

- respond to consumer needs for food and fibre products that are healthy and of high quality.
- take full account of the costs of production, including environmental costs, and ensure its pricing reflects these costs.
- protect and restore the natural resource base on which agriculture depends.
- prevent adverse on-site and off-site impacts on the environment and any other sector of the community.

- be flexible in order to accommodate regional differences and changing economic, environmental and social circumstances such as drought or terms of trade.
- be financially viable.

*Policy for Sustainable Agriculture in New South Wales, NSW Agriculture, 1998*

## Heritage Impact Assessment – Rezoning 61 Forest Reefs Road, Millthorpe NSW



Prepared by Karyn McLeod - Heritage Consultant / Archaeologist  
December 2017

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## Executive Summary

This Heritage Impact assessment has been prepared for Peter Basha Planning & Development to support a Planning Proposal for rezoning and subdivision of Lot 286 DP 1018875 at 61 Forest Reefs Road, Millthorpe (study area). The property is currently zoned RU1 Primary Production and the Planning Proposal seeks to rezone the land to RU5 Village.

The study area is located on the southwestern fringe of Millthorpe Village and is not a heritage item, but is located within the Millthorpe Heritage Conservation Area (C3) identified in Schedule 5 of the Blayney Local Environment Plan (LEP) 2012. The significance of the Millthorpe Conservation Area rests mainly in its history and streetscape. Millthorpe is important for being an outstanding example of a small Australian country town of the nineteenth/early twentieth century periods.

Blayney Shire Council is the consent authority. The Blayney Local Environmental Plan 2012 and Development Control Plan 2012 do not preclude subdivision or development within the Millthorpe Conservation Area. No development is proposed at this time.

The proposed rezoning of the study area will not have any impact on the heritage significance of the Conservation Area. The study area is only partially within the visual catchment of the town and with no direct or important view corridors to and from the study area and town. The study area is no longer representative of an agricultural resource and has no archaeological potential.

Future development of the study area for residential use may have an impact on the Conservation Area. The impacts are presently unknown. Council can impose conditions on development that ensure that the development does not adversely affect the Conservation Areas cultural significance.

Further assessment of the impact of any future development on the significance of the Conservation Area will be required.

# 1 Introduction

## 1.1 BACKGROUND

This Heritage Impact assessment has been prepared for Peter Basha Planning & Development to support a Planning Proposal for rezoning and subdivision of Lot 286 DP 1018875 at 61 Forest Reefs Road, Millthorpe (study area). The property is currently zoned RU1 Primary Production and the Planning Proposal seeks to rezone the land to RU5 Village.

The study area is not a heritage item, but is located within the Millthorpe Heritage Conservation Area (C3) identified in Schedule 5 of the Blayney Local Environment Plan (LEP) 2012. Blayney Shire Council is the consent authority, however the Heritage Division of the Office of Environment and Heritage (OEH) has recommended a heritage impact assessment be undertaken to ensure that the proposed rezoning and subdivision would not adversely impact on the Heritage Conservation Area.

## 1.2 SITE LOCATION

Millthorpe is located in the Central West region of NSW, between Orange and Blayney, within the Blayney local government area (LGA). The study area is located at 61 Forest Reefs Road, on the southwestern fringe of Millthorpe Village (Figure 1), Parish of Graham, County of Bathurst. The study area measures 3.853 hectares and is bounded by Glenorie Road to the north, a residential lifestyle lot to the east, residential development in the village zone on the land to the west and rural land to the southwest which has been identified in the Blayney, Orange, Cabonne Sub- Regional Land Use Strategy as an investigation area for future rural residential development.

FIGURE 1 – STUDY AREA LOCATION



[Source: Six Maps – Land and Property Information 2017]



### 1.3 METHODOLOGY

This Heritage Impact Assessment has been prepared in accordance with the NSW Heritage Branch guidelines *Assessing Heritage Significance* (2001). The philosophy and process adopted is that guided by the *Australia ICOMOS Burra Charter* 1999 (revised 2013).

This report has been prepared with reference to:

- Heritage Division Office of Environment and Heritage 14 August 2017, *Re: Planning Proposal to rezone Lot 286 DP 1018875 at 61 Forest Reefs Road Millthorpe* (letter).
- Blayney Shire Council, 2012, *Blayney Settlement Strategy, Part 4 – Town of Millthorpe*.
- Blayney Heritage Inventory, Millthorpe Heritage Conservation Area, SHI number 1161132.
- Peter Basha Planning & Development 2017, *Planning Proposal – Rezoning of Land from RU1 Primary Production to RU5 Village “Cheneyvale” 61 Forest Reefs Road, Millthorpe*, including the following plans;
  1. Location;
  2. Existing boundaries;
  3. Site analysis;
  4. Proposed subdivision concept;
  5. Existing and proposed zoning;
  6. Existing and proposed lot size;
  7. Residential land consumption.

### 1.4 THE PROPOSAL

It is proposed to rezone the study area from RU1 Primary Production to RU5 Village to allow for residential subdivision which would see the creation of 19 lots ranging in area from 560m<sup>2</sup> to 1.288 hectares. Section 4 (Millthorpe) of the Blayney Settlement Strategy (2012) identifies the northern half of the study area as a future investigation area for the expansion of the Millthorpe Village zone

The study area is adjacent to, and a natural extension of, the existing Village Zone and is in close proximity to the train station and existing town utilities/services. Land immediately to the west of the study area is already zoned RU5 and this proposal represents a reasonable and logical extension of this existing zone (Peter Basha 2017).

### 1.5 AUTHOR IDENTIFICATION

The following report has been prepared by Karyn McLeod (BA Honours Archaeology, University of Sydney, MA Cultural Heritage, Deakin University). The author has over 20 years of experience in the field of heritage management and conservation.

## 2 Site Context

### 2.1 SITE DESCRIPTION

The study area occupies a mid-slope and falls gradually down to Glenorie Road in the north. The native vegetation has been completely cleared and the site was previously used for grazing. All vegetation on the property is planted or regrowth. A first order ephemeral drainage line extends along the eastern edge of the study area and is not within a formed bed.

The study area is developed as a residential lifestyle allotment with small scale grazing. A house, ancillary buildings and tennis court are located in a cluster along the western boundary of the property. Plantings and landscaping have been established around the house, driveway and paddocks. The study area sits at a relatively low contour and views to and from the town are minimal due to trees within the town and along the rail line. Residential development within the village zone is located on the adjacent property to the west.

The Millthorpe village urban area is located on the opposite side of the rail line to the north and north east of the study area. The rail line has been constructed raised above the surrounding landscape and Forrest Reefs Road runs under the rail line providing access from Millthorpe village to towns in the west.

FIGURE 2 – VIEW SOUTH OF THE STUDY AREA FROM GLENORIE ROAD



[Source: Peter Basha 2017]

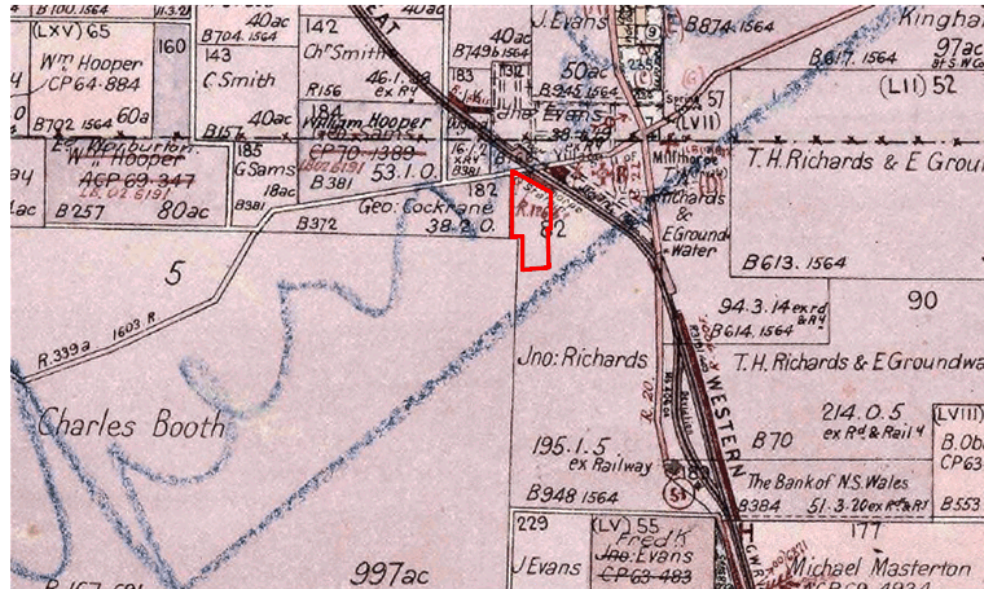
### 2.2 SITE HISTORY

Millthorpe began as a government stock station in 1823. The first settler in the vicinity was Charles Booth ex-convict and stockman who was granted 997 acres in 1834 and built Grove Farm to the west of the study area. Other settlers began to arrive in the next decade and the land's cropping potential was then realised. By the 1850's a village had developed as the centre of this agricultural area on the cross roads of the Guyong / Flyers Creek track and the Blackman's Swamp (Orange) / Kings Plains track ([www.millthorpevillage.com.au](http://www.millthorpevillage.com.au)).

During the 1860's Methodist and Anglican churches were erected, the post office was opened in 1874, a school was built in 1876 and the same year the railway was constructed. In 1882 the Great Western Milling Company built its flour mill in the town and the town's name was changed

from Spring Grove to Millthorpe. The prosperity of the village and its agricultural production was improved by the Mill and the railway and Millthorpe became one of the largest rail centres in the State shipping flour, chaff and later potatoes to Sydney and other markets (Blayney Settlement Strategy 2012).

FIGURE 3 – LOCATION OF STUDY AREA WITHIN THE PARISH OF GRAHAM 1910



[Source: Historical Lands Records Viewer (HLRV) – Land and Property Information 2017]

New buildings were erected in Millthorpe during the early 1900's and the town's commercial centre was extended, however, there was little development after this time and Millthorpe town has retained a high level of integrity as an historic village (Blayney Settlement Strategy 2012).

The study area is adjacent to Charles Booth's original land grant. It was purchased by the railway and then sold to John Richards as lot 82. The study area and those to the east bounded by the railway line were part of John Richards land and appear to have been subdivided and sold off after 1940s (Figure 5).



FIGURE 4 – VIEW NORTH FROM THE REAR OF THE PROPRTY TOWARD MILLTHORPE IN THE DISTANCE



[Source: Peter Basha 2017]

FIGURE 5 –VIEW NORTH TOWARD THE REAR OF THE HOUSE



[Source: Peter Basha 2017]

## 3 Heritage Assessment

### 3.1 LISTING

Properties which are listed as heritage items are identified in Schedule 5 of Blayney Local Environmental Plan (LEP) 2012. The study area is within the Millthorpe Conservation Area (C3). The Millthorpe Conservation Area includes the town and some of the surrounding rural smallholdings, mostly to the north and west that are in the visual catchment of the town.

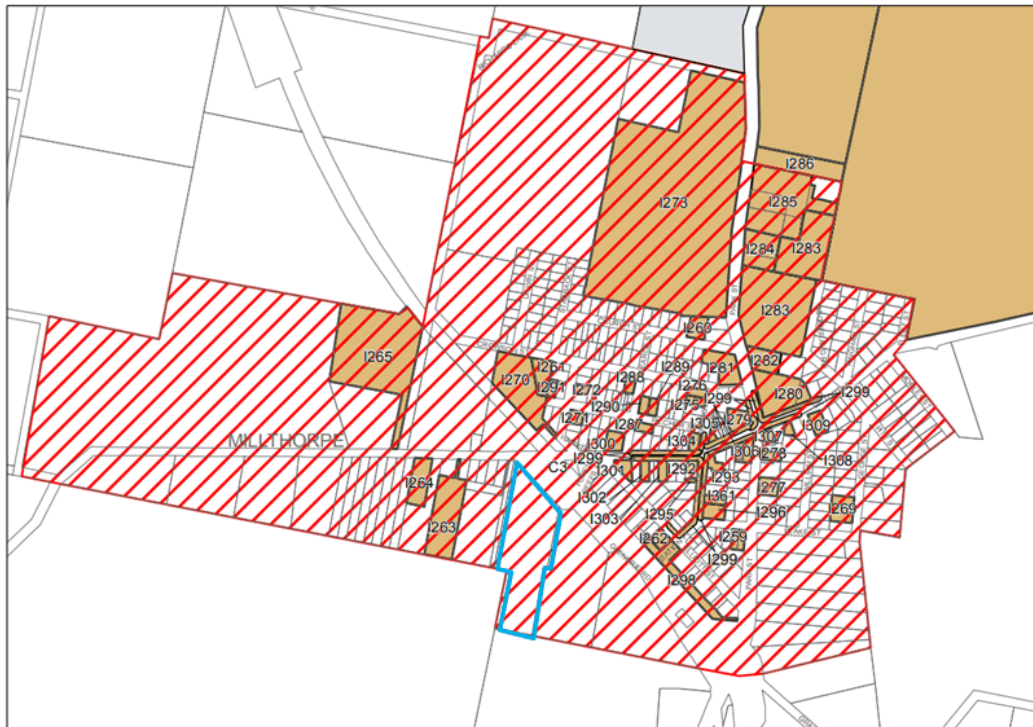
Two locally listed items are located to the west of the study area, including;

- "The Pines", cottage and avenue of radiata pines at 73 Forest Reefs Road (item 263)
- "Canberra", house, garden, dairy buildings and shed at 85 Forest Reefs Road (item 264).

In addition, item 270 is the site of the Great Western Milling Company mill building and rail siding (former – now demolished) opposite the study area over the road and railway at 1B Hawke Street.

None of these properties are adjacent to the study area or have significant views to or from the study area.

FIGURE 6 MILLTHORPE - LOCATION OF HERITAGE ITEMS AND THE STUDY AREA (BLUE)



[Source: Blayney LEP 2012 Heritage Maps]

#### **Archaeology**

There have been no previous archaeological investigations of the study area. The property functioned as part of a much larger grazing property in the past and there is no documentary evidence that there were any structures built on the study area prior to those occupying the allotment now. No activity on the

property would have resulted in an archaeological resource. The property has no historical archaeological potential.

### 3.2 SIGNIFICANCE

Before making decisions to change a heritage item, it is important to understand its values. This leads to decisions that will retain these values in the future. Statements of heritage significance summarise a place's heritage values – why it is important and why a statutory listing was made to protect these values.

#### 3.2.1 STATEMENT OF SIGNIFICANCE

The Statement of significance for the Millthorpe Conservation Area from the heritage inventory sheet is as follows;

*The village is picturesque with the element of surprise as Millthorpe cannot be overlooked from any one vantage point. The layout has blended well with the natural surroundings and the ridges are mostly undeveloped with strategically located trees and plantings established for farming. The scale is remarkable, both in the relationship to the surrounding hills to the developed area of the village and to the scale of the buildings to street. The unusually narrow streets and range of subdivisions give Millthorpe an intimate atmosphere. The village has a compact form due to the defined small lot subdivision boundary at the perimeter and an intensely developed commercial centre relatively free of vacant lots giving it a higher density than normal for a country town. The centre includes the churches, the railway station and a range of industrial uses and structures. The period and style of Millthorpe's buildings have a high degree of coherence and continuity including the Government housing in Boomerang Street. The majority of the buildings appear to be in reasonable condition as regards upkeep and are almost all brick and suited to the local climate. While some regrettable alterations, infill and over-zealous restorations have occurred, for the most part, the village is an extraordinary example of a self-sustaining village and community.*

The significance criteria listed on the inventory sheet do not necessarily reflect the statement of significance. The significance criteria are more concerned with Millthorpe's history as a self-sufficient mid 19<sup>th</sup> century agricultural town which has retained its subdivision character and integrity and retains opportunity for building and architectural research. Views and vistas to and from the surrounding agricultural land are not noted as significant elements.

### 3.3 STATUTORY CONTROLS

#### 3.3.1 STATE LEGISLATION

##### **National Parks and Wildlife Act 1974** (NPW Act)

Amended during 2010, the NPW Act provides for the protection of Aboriginal objects (sites, objects and cultural material) and Aboriginal places. Under the Act (S.5), an Aboriginal object is defined as: any deposit, object or material evidence (not being a handicraft for sale) relating to indigenous and non-European habitation of the area that comprises NSW, being habitation both prior to and concurrent with the occupation of that area by persons of European extraction, and includes Aboriginal remains.

An Aboriginal place is defined under the NPW Act as an area which has been declared by the Minister administering the Act as a place of special significance for Aboriginal culture. It may or may not contain physical Aboriginal objects.

As of 1 October 2010, it is an offence under Section 86 of the NPW Act to 'harm or desecrate an object the person knows is an Aboriginal object'. It is also a strict liability offence to 'harm an Aboriginal object' or to 'harm or desecrate an Aboriginal place', whether knowingly or unknowingly. Section 87 of the Act provides a series of defences against the offences listed in Section 86, viz.:



- The harm was authorised by and conducted in accordance with the requirements of an Aboriginal Heritage Impact Permit (AHIP) under Section 90 of the Act;
- The defendant exercised 'due diligence' to determine whether the action would harm an Aboriginal object; or
- The harm to the Aboriginal object occurred during the undertaking of a 'low impact activity' (as defined in the regulations).

Under Section 89A of the Act, it is a requirement to notify the OEH Director-General of the location of an Aboriginal object. Identified Aboriginal items and sites are registered on the Aboriginal Heritage Information Management System (AHIMS database), a statutory register managed by the OEH under section 90Q of the NPW Act. The AHIMS database manages information on known Aboriginal sites, including objects as defined under the Act.

#### **NSW Heritage Act 1977** (Heritage Act)

The *Heritage Act 1977* (Heritage Act) was established the Heritage Council of NSW. The Heritage Council's role is to advise the government on the protection of heritage assets, make listing recommendations to the Minister in relation to the State Heritage Register, and assess/ approve/ decline proposals involving modification to heritage items or places listed on the Register. Most proposals involving modification are assessed under Section 60 of the Heritage Act. Automatic protection is afforded to 'relics', defined as,

*any deposit or material evidence relating to the settlement of the area that comprised New South Wales, not being Aboriginal settlement, and which holds state or local significance.*

Excavation of land on which it is known or where there is reasonable cause to suspect that 'relics' will be exposed, moved, destroyed, discovered or damaged is prohibited unless ordered under an excavation permit issued by the OEH Heritage Division.

#### **Environmental Planning and Assessment Act 1979** (EP&A Act)

The Environmental Planning and Assessment Act 1979 (NSW) [EP&A Act] requires that consideration is given to environmental impacts as part of the land use planning process. In NSW, environmental impacts are interpreted as including cultural heritage impact. Proposed activities and development are considered under different parts of the EP&A Act, including:

- Major projects (State Significant Development under Part 4.1 and State Significant Infrastructure under Part 5.1), requiring the approval of the Minister for Planning.
- Minor or routine development requiring local council consent, are usually undertaken under Part 4. In limited circumstances, projects may require the Minister's consent.
- Part 5 activities which do not require development consent. These are often infrastructure projects approved by local councils or the State agency undertaking the project.

### **3.3.2 LOCAL PLANNING INSTRUMENTS**

Local Environmental Plans (LEP) are made under the Environmental Planning and Assessment Act 1979 (NSW) to guide planning decisions by local councils, such as development applications. In relation to heritage, the LEPs general objectives are to conserve the heritage of the respective LGAs through the protection of the significance of heritage items, Conservation Areas, archaeological sites and Aboriginal objects and Aboriginal places of heritage significance.

Blayney LEP 2012 is the principal planning instrument for the Blayney Government Area (LGA). The LEP sets out the planning framework and establishes the requirements for the use and development of land in the LGA. The LEP provides broad direction with regard to what types of development are permitted

within specific land use zones. Under the provisions of the LEP development consent is required for subdivision of land or erecting a building on land that is within a heritage Conservation Area.

The proposal is addressed in the table below in relation to the relevant clauses in 5.10 (Heritage Conservation) of the LEP.

(1) Objectives;

(a) to conserve the environmental heritage of Blayney,

(b) to conserve the heritage significance of heritage items and heritage Conservation Areas, including associated fabric, settings and views,

(c) to conserve archaeological sites,

(d) to conserve Aboriginal objects and Aboriginal places of heritage significance.

TABLE 1 – RELEVANT LEP CLAUSES

CLAUSE	DISCUSSION
<p><b>Requirement for consent</b></p> <p>(a) demolishing or moving any of the following or altering the exterior of any of the following (including, in the case of a building, making changes to its detail, fabric, finish or appearance):</p> <p>(i) a heritage item,</p> <p>(ii) an Aboriginal object,</p> <p>(iii) a building, work, relic or tree within a heritage Conservation Area,</p> <p>(b) altering a heritage item that is a building by making structural changes to its interior or by making changes to anything inside the item that is specified in Schedule 5 in relation to the item,</p> <p>(c) disturbing or excavating an archaeological site while knowing, or having reasonable cause to suspect, that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed,</p> <p>(d) disturbing or excavating an Aboriginal place of heritage significance,</p> <p>(e) erecting a building on land:</p> <p>(i) on which a heritage item is located or that is within a heritage Conservation Area, or</p>	<p>The study area is not a heritage item. There are no heritage buildings, archaeological sites or Aboriginal places of heritage significance within the study area.</p>

<p>(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance,</p> <p>(f) subdividing land:</p> <p>(i) on which a heritage item is located or that is within a heritage Conservation Area, or</p> <p>(ii) on which an Aboriginal object is located or that is within an Aboriginal place of heritage significance.</p>	<p>The study area is located in a Conservation Area and consent is required for subdivision of land in a Conservation Area.</p>
<p><b>Heritage assessment</b></p> <p>The consent authority may, before granting consent to any development: (a) on land on which a heritage item is located, or</p> <p>(b) on land that is within a heritage Conservation Area, or</p> <p>(c) on land that is within the vicinity of land referred to in paragraph (a) or (b),</p> <p>require a heritage management document to be prepared that assesses the extent to which the carrying out of the proposed development would affect the heritage significance of the heritage item or heritage Conservation Area concerned.</p>	<p>This report fulfils the requirement for a heritage management document.</p> <p>The proposed rezoning will have no impact on the Conservation Area or the heritage items in the vicinity, however future development has potential to result in impacts to the environmental heritage of Millthorpe.</p>

### 3.3.3 MILLTHORPE DEVELOPMENT CONTROL PLAN

As well as the provisions within the LEP, there are additional guidelines for development within Blayney Shire Council's four heritage Conservation Areas. The guidelines appropriate to the study area are contained within the Millthorpe Development Control Plan (DCP) No.2 adopted in 2000, amended 2008.

The DCP provides more detailed controls for specific development types. It does not preclude development, but is useful control to ensure that future development is sympathetic to the Conservation Area. This plan aims to ensure that all new developments, and alterations or additions to existing buildings in Millthorpe are designed and built in a way that will maintain and enhance the heritage significance of the village.

The future development of the study area is not known and no development is proposed at this time. The proposal for rezoning has no impact on the Conservation Area or heritage items in the vicinity of the study area. Council can impose conditions on future development of the study area to ensure that any development does not adversely affect the cultural significance of the Conservation Area or the heritage items in the vicinity. Conditions could include height and bulk limitations, architectural style and form, building setbacks, access arrangements, building orientation, tree screening, materials, buffer zones etc.

### 3.3.4 THE BLAYNEY SETTLEMENT STRATEGY

The Blayney settlement strategy (2012) sets the future direction for the LGA describing how it will accommodate future urban growth over the next 20 years and allow for complex zoning in the future. The Strategy informed the preparation of the LEP in 2012. Section 4.13 of the Strategy states that a heritage Conservation Area is an area identified in a planning instrument where particular care should be taken to ensure that development is sensitive towards existing heritage items and the heritage character of that precinct and, in particular, the key streets. The inclusion of land that does not include heritage items is to protect the visual catchment and ensure development is sympathetic. A similar effect can be achieved through development controls.

### 3.3.5 HERITAGE OFFICE GUIDELINES

The proposed works are addressed in relation to relevant questions posed in the Heritage Office's 'Statement of Heritage Impact' guidelines (2002).

**The following aspects of the proposal respect or enhance the heritage significance of the item or Conservation Area for the following reasons:**

Millthorpe is important for being an outstanding example of a small Australian country town of the nineteenth/early twentieth century periods. Its significance is associated with street plan, closed vistas, coherence and continuity of period and style, and its scale.

Rezoning of the study area has no impact on heritage items or the significance of the Conservation Area. The study area is not used for Primary Production and is no longer representative of an agricultural resource. There is minimal visual impact from land to the south and west of Millthorpe and there are no important view corridors to and from the study area. There are no existing setbacks and future subdivision would not affect the form of any historic subdivision. Landscape or horticultural features would not be affected by the proposed subdivision and neither historical nor Aboriginal archaeological sites would be impacted. The proposed subdivision would not compromise the curtilage of any heritage item.

Future plans for the development of the study area are unknown and therefore an assessment of how future development will respect or enhance the heritage significance is not possible. The location of future buildings and/or building envelopes could be conditioned by Council and sufficient controls placed on separation, buffer zone or tree screening could be considered. Once future development of the study area is known, a heritage impact statement may be required to assess the potential impacts of the proposed siting, setback, height and materials of the development on heritage items in the vicinity and the Conservation Area.

**The following aspects of the proposal could detrimentally impact on heritage significance. The reasons are explained as well as the measures to be taken to minimise impacts:**

The proposed rezoning has no impact on heritage items or the Conservation Area. Council could condition mitigation measures to ensure that any future development will be sympathetic to the Conservation Area.

**The following sympathetic solutions have been considered and discounted for the following reasons:**

Future plans for the site are currently unknown. Sympathetic solutions have not been considered or discounted at this stage. The Blayney settlement strategy (2012) notes that heritage controls should protect and enhance the heritage items and streetscapes while supporting the inevitable future development and growth of the town.

## 4 Conclusion and Recommendations

The significance of the Millthorpe Conservation Area rests mainly in its history and streetscape. Millthorpe is important for being an outstanding example of a small Australian country town of the nineteenth/early twentieth century periods. Millthorpe's street plan is influenced by the topography and is centred upon the disjointed crossroads of the early Blayney-Orange and Flyer's Creek intersection, adjacent to which the street's form a grid pattern of sorts. There are no typically wide streets and there are a number of closed vistas arising from the irregular street plan, giving Millthorpe an intimate atmosphere. The built fabric of the town has a coherence and continuity of period and style, and the scale is harmonious, both in terms of the buildings with the streets and the buildings with the surrounding countryside.

The Blayney LEP and DCP do not preclude subdivision or development of the Millthorpe Conservation Area. The proposed rezoning of the study area will not have any impact on the heritage significance of the Conservation Area. The study area is only partially within the visual catchment of the town and with no direct or important view corridors to and from the study area and town. The study area is no longer representative of an agricultural resource.

No development is proposed at this time. Future development of the study area for residential use may have an impact on the Conservation Area. The impacts are presently unknown. Council can impose conditions on development that ensure that the development does not adversely affect the cultural significance of the Conservation Area.

Further assessment of the impact of any future development on the significance of the Conservation Area and any heritage items in the vicinity will be required in the form of a Statement of Heritage Impact (SoHI).

## 5 References

Australia ICOMOS 1999, *The Burra Charter: The Australia ICOMOS Charter for Places of Cultural Significance*, Australia ICOMOS, Burwood.

Blayney Council, 2012, *Blayney Settlement Strategy, Part 4 – Town of Millthorpe*.

Blayney Development Control Plan 2012 <http://www.blayney.nsw.gov.au/development/control-plans/development-control-plans--dcp>

Blayney Heritage Inventory, Millthorpe Heritage Conservation Area, SHI number 1161132.

Blayney Local Environmental Plan 2012  
<https://legislation.nsw.gov.au/#/view/EPI/2012/573/historical2016-06-03/full>

Blayney Settlement Strategy 2012 <https://Millthorpe/4a%20Town%20of%20Millthorpe%204-1%20to%204-34.pdf>

Department of Lands 2017, Spatial Information eXchange, Department of Lands, Sydney  
<http://imagery.maps.nsw.gov.au/>.

Heritage Office and Department of Urban Affairs & Planning 1996, *NSW Heritage Manual*, Heritage Office and Department of Urban Affairs & Planning (NSW), Sydney.

Heritage Office 2001, *Assessing Heritage Significance*, Heritage Office, Parramatta.

Heritage Office 2002, *Statements of Heritage Impact*, Heritage Office, Parramatta.

Peter Basha Planning & Development 2016, *Planning Proposal – Rezoning of Land from RU1 Primary Production to RU5 Village “Cheneyvale” 61 Forest Reefs Road, Millthorpe*, Prepared for Glenn and Lynne Mortimer.