SECTION 1 - INTRODUCTION

1.1 PREAMBLE
On September 30, 2005 the Environmental Planning and Assessment Act 1979 (EP & A Act) was amended to provide that only one Development Control Plan (DCP) prepared by a consent authority may apply to any land within a Local Government Area. In order to comply with this amended provision, Council has reviewed all of its existing DCPs into this DCP, which also incorporates new sections. Other DCPs that no longer have any relevance were repealed as part of this process. From time to time, the DCP will require amendment to incorporate new sections or to repeal or amend existing provisions.

1.2 PURPOSE OF THE DCP
The DCP complements the statutory provisions contained in the Muswellbrook Local Environmental Plan by providing detailed guidelines to assist applicants, staff and others involved and interested in development within the Muswellbrook Local Government Area.

1.3 AIMS OF THE DCP
The aims of the DCP are:
   a) To provide a detailed planning document that outlines requirements for development which meets community expectations and addresses the key environmental planning issues of the Local Government Area;
   b) To identify and to detail public notification requirements in accordance with section 74C of the EP & A Act;
   c) To promote a more simplistic framework for dealing with Development Applications (DAs) consistent with the amended requirements of the EP & A Act;
   d) To encourage and assist effective community participation in the decision-making process;
   e) To provide a more accessible and understandable set of guidelines to the general public; and
   f) To apply common or consistent requirements and procedures in the assessment of all applications.

1.4 STATUTORY REQUIREMENTS
The DCP is titled “Muswellbrook Shire Development Control Plan 2009”. The DCP is a development control plan prepared under Section 74C of the Environmental Planning and Assessment Act and Environmental Planning and Assessment Regulations.

Section 74C(5) in the EP & A Act provides that, in the event of any inconsistency between this DCP and the provisions in an environmental planning instrument (such as a State Environmental Planning Policy, Regional Environmental Plan or Local Environmental Plan) the environmental planning instrument shall prevail.

For the purposes of interpreting certain clauses in the Muswellbrook LEP, reference in Section 79C(1)(a)(iii) of the EP & A Act requires Council (or any other consent authority) to consider this DCP when determining development applications that are covered by this DCP.
1.5 LAND TO WHICH THIS DCP APPLIES
This DCP applies to all land within the Muswellbrook Local Government Area (LGA).

1.6 RELATIONSHIP TO PREVIOUS DEVELOPMENT CONTROL PLANS
This DCP replaces the following Development Control Plans:

- DCP No. 1 – Off Street Parking Guidelines
- DCP No. 2 – Industrial Development Land Use
- DCP No. 3 – Muswellbrook Urban Housing
- DCP No. 4 – Eastern Land Bank South Muswellbrook
- DCP No. 6 – Flood Prone Land
- DCP No. 8 – Guidelines for Subdivision
- DCP No. 9 – Erosion and Sediment Control Regional Policy and Code of Practice
- DCP No. 10 – Determination of Rezoning and Development Applications Involving Contaminated Land
- DCP No. 12 – Exempt and Complying Development and Notification Procedures
- DCP No. 14 – Liquid Trade Waste Policy
- DCP No. 15 – Muscle Creek Rural Residential Development
- DCP No. 16 – Sex Industry Premises
- DCP No. 17 – The Keeping of Dogs and the Erection of Kennels
- DCP No. 18 – Onsite Wastewater Management in Non-Sewered Areas
- DCP No. 19 – Frost Control Fans
- Guidelines Document for Signage Applications

1.7 HOW TO USE THIS DCP
This DCP contains sections relevant to the different types of land uses, development and zonings permitted under the Muswellbrook LEP. If you are planning to lodge a development application, find the relevant section of the DCP that relates to your proposal, and address the relevant controls in designing your development.

Within each section, if the provisions of another section within the DCP are relevant to the proposed development, they will be referenced within that section rather than repeated.

This DCP is comprised of the following sections:

1 – Introduction
2 – Submitting an Application
3 – Site Analysis
4 – Notification
5 – Subdivision
6 – Residential Development
7 – Village Zones
8 – Rural Development
9 – Local Centre Development
10 – Industrial Development
11 – Extractive Industry
12 – Tourist Facilities and Accommodation

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13 – Flood Prone Land
14 – Outdoor Signage
15 – Heritage Conservation
16 – Car Parking and Access
17 – Sex Services and Restricted Premises
18 – Child Care Centres
19 – Use of Public Footpaths
20 – Erosion and Sediment Control
21 – Contaminated Land
22 – Land Use Buffers
23 – Onsite Wastewater Management Systems
24 – Waste Management
25 – Stormwater Management

1.9 HOW TO INTERPRET THIS DCP
Council shall take the provisions of this DCP into consideration in determining DAs. However, compliance with the provisions of this DCP does not necessarily imply that Council will consent to an application. Council must consider the full range of matters listed under Section 79C of the EP&A Act. Each application will be considered on its merits.

1.10 DEPARTURES AND REQUESTS FOR VARIATIONS TO THIS DCP
Council may consent to an application that departs from the provisions of this DCP. Where applicants seek a departure or variation from the provisions of this DCP, the request must be in writing (either as part of the Statement of Environmental Effects, or a separate submission) and justify the reasons for the departure. Such justification may necessitate the submission of additional plans, diagrams, photomontages and the like, or additional studies and reports such as acoustic or odour assessment studies, traffic and car parking studies, etc.

Any variation or departure will only be considered where it can be demonstrated to Council's satisfaction that there is a clear case for variation of the provisions, and that the overall zone objectives and any specific provisions of the Muswellbrook LEP and this DCP (including the relevant section) will be satisfied.

1.11 DEFINITIONS
The definitions and terms in this DCP adopt the relevant definitions contained within the Muswellbrook LEP. Terms that relate to the interpretation of terms and meanings used within various chapters in this DCP are contained within those chapters, or where not specified, the relevant definition from the Macquarie Dictionary shall apply. All interested persons should ensure that definitions are appropriately sourced and referenced before preparing any applications to Council.

The following page no. is 2-1
Section 2 – Submitting an Application

2.1. Overview
Development Applications (DAs) are applications made to Council for development which does not fall into any category of exempt or complying development and may include building works, subdivision, change of use of a property, demolition, advertising structures, alterations and additions to existing buildings.

Development Applications must be accompanied by certain information to enable Council to fully assess the potential impacts of a proposal on the natural and built environment.

The Environmental Planning and Assessment Act 1979 and Regulations 2000 set out the requirements for lodging and processing a development application.

2.2 Pre-lodgement
Before lodging an application for larger or more complex development, it is strongly recommended that the proponent organise a pre-lodgement meeting with Council Officers to discuss the proposal and obtain feedback on the likely issues that need to be addressed by the application.

Council Officers cannot guarantee a favourable outcome for any development application at pre-lodgement stage, and such outcomes can only be determined following completion of the assessment process.

2.3 The Development Application Process
In assessing a development application, Council must take into consideration the following matters:
- The Environmental Planning and Assessment Act 1979 and Regulation 2000, in particular Section 79C of the Act;
- Any relevant State Environmental Planning Policy (SEPP) including:
  - SEPP No. 30 - Intensive Agriculture
  - SEPP No. 44 - Koala Habitat Protection
  - SEPP No. 55 – Remediation of Land
  - SEPP No. 64 – Advertising and Signage
  - SEPP No. 65 – Design Quality of Residential Flat Development
  - SEPP (Seniors Living) 2004
  - SEPP (BASIX) 2004
  - SEPP (Rural Lands) 2008
  - SEPP (Infrastructure) 2007
- Hunter Regional Environmental Plan 1989;
- Muswellbrook Local Environmental Plan;
- Local Government Act 1993 and Regulations;
- Building Code of Australia;
- The requirements of Muswellbrook Development Control Plan;
- Any relevant Acts of parliament;
- Any directions of the Minister for Planning;
- Any submissions received from the public following notification of the application;
2.3 Information to Accompany a Development Application

Schedule 1 of the Environmental Planning and Assessment Regulation 2000 prescribes the information that needs to be lodged with an application. Such information includes:

- A completed application form;
- Architectural drawings that show the existing / proposed works;
- A site plan and/or site analysis plan (for larger developments);
- A Statement of Environmental Effects explaining the proposal, the site and its context, the likely impacts of the proposal and details of any measures proposed to minimise these impacts;
- An Environmental Impact Statement (in the case of designated development);
- A4 notification plan;

A development application might also include other information depending on what is proposed, such as:

- A Species Impact Statement (in the case of land that is, or is part of, critical habitat or development that is likely to significantly affect threatened species, populations or ecological communities or their habitats);
- BASIX Certificate,
- Bushfire Report,
- Heritage Impact Statement,
- Stormwater Drainage plan,
- Landscape Plan,
- Traffic Study,
- Schedule of Colours and Finishes,
- Aboriginal Heritage Assessment,
- Flora and Fauna Assessment,
- Photographs,
- Waste Management Plan,
- Shadow Diagrams,
- Sediment and Erosion Control plan,
- List of existing and proposed fire safety measures,
- Preliminary site contamination assessment,
- Engineering report for flood affected land,
- Acoustic assessment,
- Social Impact Assessment.

These items are listed in checklists available from Council or on Council’s website.

2.4 Applications for Modifications to a Development Consent

An application for a modification to a development consent under Section 96 of the Environmental Planning and Assessment Act 1979 must be accompanied by the following information (as a minimum):

- A completed application form;
• A statement outlining the proposed modification/s and identifying the relevant conditions of consent that are to be amended;
• Plans highlighting the proposed modifications (coloured or clouded);
• A statement addressing the potential impacts of the proposed modification/s.
• Proposed wording of amended conditions.
Section 3 – Site Analysis

3.1. Overview
Building within the Upper Hunter Valley area offers a unique set of opportunities and constraints. Every site requires detailed planning to balance development needs with environmental conditions. The site analysis - knowing what is there - is the starting point.

It is not sufficient to prepare a site analysis and then ignore it during the design process. The site analysis will have identified the opportunities and constraints of a particular site and its surrounding area. The purpose of site analysis is to inform the design process. Some of the information will form the basis for preparing further reports in relation to flora and fauna, bushfire, heritage, etc.

3.2. Site Analysis Required
(i) A site analysis must be completed on all proposals other than single dwellings involving construction work less than 100 square metres in floor area. It forms part of the development application to Council.

(ii) The site analysis can be in two formats depending on which method best presents the site characteristics, they are plans (maps) and statements.
   • Plans – contain all the information that can be easily mapped.
   • Statements – issues such as character of the area are better addressed in text and photographs.

3.3. Site Analysis Plan
Site analysis in plan form must be drawn to scale (generally 1:200, 1:500 or 1:1000). Include the site and its surrounds and then add the following information (relevant to the site) to the plan:

(i) Site Characteristics
   • The location, boundary dimensions of the site.
   • The position of true north.
   • The contours of the site (usually at 1 metre intervals) and the contours of adjoining allotments.
   • The movement of the sun across the site.
   • The prevailing wind direction and, if in an exposed area, the likely wind speed across the site.
   • The zone and the zone boundaries (if there are multiple zones), protected areas and riparian corridors.
   • The location of any slopes greater than 20% (1 in 5) and the direction or fall of drainage from those areas.
   • The location of existing vegetation. Specify the type of vegetation present.
   • Identify any noxious or environmental weeds.
   • The location of any significant natural features such as cliffs, rock outcrops, water holes.

(ii) Drainage
   • The location of existing stormwater controls such as easements, trenches, etc.
• Drainage patterns on the site, areas of concentrated runoff, ponding, possible flooding.
• Location of any watercourses, creek, wetlands, stream etc., on the site or any within 40 metres from the site.

(iii) Services
• The location of above or below ground services, including power, water, gas, sewer or wastewater systems / land application areas.

(iv) Existing Development
• Set backs, height and location of buildings on adjoining lands.
• Any potential noise sources, private open space areas or windows from any adjoining buildings which may overlook the site.
• Any areas of land degradation, identify likely causes.
• The location of buildings or structures on the site including swimming pools, retaining walls and other hard surface areas.
• The location of existing access to the site, including any pathways, tracks or driveways and the number and location of on-site car parking areas.
• For 'bushfire prone land' the existing and proposed road network, including the width of roads and whether they are connector roads or cul-de-sacs.

Example of site analysis plan

3.4. Site Analysis Statements
Attach a copy of the following information:

(i) Photographs
• Provide pictures of the character of the surrounding area (photograph buildings on adjoining sites and the adjacent streetscape).
• Include pictures of any significant features of the site (views to and from the land, vegetation, etc).

(ii) Statement
• Review the Certificate of Title for the property to determine whether any restrictions exist. For example a covenant or 88b restriction.
• Provide a statement on the zoning of the land and whether the type of development proposed is permitted within that zoning.
• Provide a statement as to whether the land is mapped as ‘bushfire prone’.* (Maps can be viewed on Council’s web site or at one of our customer service centres).
• If the land is ‘bushfire prone’ the statement should include the location, extent and vegetation group of any bushland on or within 140 metres of the site; the slope and aspect of the site and of any bushfire prone land within 100 metres (this may determine the likely path of any bushfires); and any features on or adjoining the site that may mitigate the impact of a bushfire.

The following page no. is 4-1
Section 4 - Notification

About notification
Muswellbrook Shire Council is committed to community involvement in the assessment of proposed new developments in consideration of the provisions within the Environmental Planning and Assessment Act 1979. This section outlines Council’s policy concerning notification.

How this section is used
This section applies to:

- applications for development consent lodged under the Environmental Planning and Assessment Act 1979 (EPA Act)
- amendments to development applications lodged before an application is decided

Modifications -

- changes to development consents (s 96)
- applications for review of determinations (s 82A).
- This section does not apply to Construction Certificates or Exempt Development as defined by Section 76A(5) and Section 76(2) respectively of the EPA Act.

Definition of terms

In this Section the following terms apply (for other definitions refer to the LEP):

“Adjoining Land” means land which abuts an Application Site or is separated from it only by a road, land, pathway, driveway, right of way or similar thoroughfare.

“Application Site” means the land to which an application for development consent relates and includes any easement or right of way relating to the site.

“Building” includes part of a building and any structure or part of a structure, including a swimming pool.

“Council” includes Council officers who may make a decision on an application with delegated authority.

“Delegated authority” means authority to make a decision as resolved by Council under s 377 of the Local Government Act 1993 or as described in Council’s Delegations of Authority.

“Demolition” means the complete or partial dismantling of a building or structure including damage, defacement or the relocation of a building or structure.

“Neighbouring Land” means any land, other than adjoining land, which may be adversely affected by the use of an Application Site or the erection of a building on an Application Site (includes properties in a neighbouring Local Council Area).

“Land” includes any building or part of a building erected on the land.

“Owner” means the name and address of the proprietor as registered in Council’s rating records.

What we want to achieve

Through notification of proposed new development Muswellbrook Shire Council intends to:

- encourage wider public understanding of the development application process;
- enable public participation in the consideration of development applications;
• provide a reasonable time for the public to view applications and make comments, which does not interfere with the Council’s obligation to determine applications within the required timeframe;
• provide a process for property owners and residents to make submissions;
• notification of landholders who may be affected by a development application even though they do not own adjoining land;
• detail the process to be carried out in advertising and notification; and
• define the circumstances when advertising and notification are not required.

4.1 ADVERTISEMENT AND NOTIFICATION OF APPLICATIONS

Development applications will be advertised/notified in a local newspaper (or other appropriate newspaper); by letter sent to landholders/residents who in the opinion of the Council may be adversely affected. If in the opinion of Council it is considered that the application is of a nature that may have potential adverse impacts upon the wider community, a site notice may be erected on the subject site. Notification of amended plans, modifications to applications, and reviews of determinations are dealt with in section 4.2.

4.1.1 Who will be notified

Unless otherwise exempted by the EP & A Act or this policy, notice of a development application will be sent to:-
• all persons who, according to Council’s property records, own or occupy land immediately adjoining that part of the application site affected by the proposed development;
• owners and occupiers of any neighbouring land which, in the opinion of Council, may be adversely affected by the application [except as specified in Section 5.2 of the EPA Act];

For the purpose of this section:
   i) if land is owned or occupied by more than one person, a written notice to one owner or one occupier is taken to be a written notice to all the owners and occupiers of that land.
   ii) Council may also direct that:
       - an application be advertised or notified to any person or group of persons whom it considers may have an interest in the matter;
       - the application be available for inspection and submissions for such additional periods as it considers appropriate.

4.1.2 Cost of advertising and submissions

Applicants are required to pay a fee to Council to cover the cost of advertising and notification of the original application and subsequent amendments to an application prior to determination and any modification.

4.1.3 Matters considered in forming the opinion that enjoyment of land may be adversely affected

In determining which neighbouring land may be adversely affected Council will consider:
   i) the likely impacts of the development on both the natural and built environment of the neighbourhood;
ii) the social and economic impacts on the neighbourhood.

**4.1.4 Content of notification letter and advertisement and site notices**

All advertisements, notification letters and site notices will include:

i) a description of the land (including the address) on which the development is proposed to be carried out;

ii) the name of the applicant and the name of the consent authority;

iii) a description of the proposed development;

iv) a statement that the application and the documents accompanying that application may be inspected at the consent authority’s principal office for a period specified in the notice during the consent authority’s business hours;

v) a statement that any person during the period specified may make a written submission in relation to the development application to the consent authority;

vi) the specified submission period.

Where the application involves erecting a building the notification letter will include an A4 size plan showing the height and external configuration and façade of the building in relation to the site.

**4.1.5 Period for inspection of applications and lodgement of submissions**

Applications may be inspected during business hours and submissions made during the notification period which will be a period of not less than 14 days and not more than 28 days. This period may be extended of the Christmas/ New Year period at Council’s discretion.

Council will not decide on the application before the notification period has expired. Late submissions may be received by the Council after the exhibition period, and will be addressed by Council as appropriate to the circumstances and timing of the submission.

**4.1.6 Advice to applicants of submissions**

Applicants will generally be supplied with a copy of all submissions upon request and pursuant to relevant legislation, unless they are submitted in strict confidence or in the opinion of Council contain information or statements irrelevant to the assessment and determination of the development application.

Council policy is that applicants are entitled to read all submissions in full, however, the names and addresses of persons who specifically request that their names be withheld will not be made available.

**4.1.7 Consideration of submissions**

Council will consider all submissions on their merits. Submissions will be summarised in the report prepared for the consideration and determination of the application. The report will include names and addresses of those who made the submissions.

Council is not bound by any submission and its assessment of an application will involve considering the merits of the application together with all submissions.
4.1.8 Other notifications

A notice in accordance with Section 4 of the EPA Act will be given to Upper Hunter, Singleton and Mid-Western Regional Councils in respect of applications for development on land adjoining those Local Government areas.

In respect of Integrated Development Applications, notification will be given in accordance with the provisions of the EPA Regulations in force at the time.

4.1.9 When notification is not necessary

There will be no notification of applications relating to:

i) existing buildings where the work will not change the height, external shape or façade of the building;

ii) modifications that will result in a lesser impact than the original proposal;

iii) change of use, (except change of use to a cafe/restaurant or cultural resource in a zone) where, in the opinion of the Council, there will be no adverse impact on the neighbourhood;

iv) minor modifications that do not alter the consideration of impacts previously considered acceptable by Council;

v) intensification of use including change to the hours of operation of a business, (except a cafe/restaurant or cultural resource in a zone) where, in the opinion of the Council, there will be no adverse impact on the neighbourhood;

vi) proposals which have no material impact on adjoining properties (eg. a window on one side of a building which has no impact on properties on the opposite side of the property, or changes to technical matters in conditions of consent, minor changes to detail);

vii) applications to strata subdivide or to company title;

viii) applications made by Muswellbrook Shire Council for capital or public works on Council land, where prior public consultation consistent with clause 4.1.1 has occurred. Any submissions received during this pre-submission notification must be considered in accordance with 4.1.7.

4.2 AMENDED PLANS

An applicant may amend an application at any time before Council has made its decision, subject to the agreement of Council and payment of additional fees determined by Council.

If, in Council’s opinion, the amendments are considered likely to have a greater adverse effect on or a different adverse effect on adjoining or neighbouring land, then Council will renotify:

- those persons who made submissions on the original application;
- any other persons who own adjoining or neighbouring land and in the Council’s opinion may be adversely affected by the amended application;

Where the amendments in the Council’s opinion do not increase or lessen the adverse effect on adjoining or neighbouring land, Council may choose not to notify or advertise the amendments.
Where the amendments arise from a Council-sponsored mediation, and it is considered that the amendments reflect the outcome of the mediation and do not otherwise increase the application’s environmental impact, the amendments will not be notified or advertised.

4.2.1 Modifications

All applications to modify a development consent will be advertised unless:

i) the modification does not change the height or external shape or facade of the proposal as shown on the original application; or
ii) Council is satisfied that the modification or amendment has none or only a minimal impact on the environment; or
iii) The modification is to correct a minor error, misdescription or miscalculation; or
iv) Council is satisfied that the modification or amendment does not substantially change the original application; and
v) Council is satisfied that no disadvantage will be caused to any person who owns adjoining or neighbouring land or who has made a submission relating to the application.

In determining who is to be notified of the proposed modification, if Council is satisfied that the modification is of a minor nature, or of minimal environmental impact, the requirement for newspaper advertisement/site notice may be waived.

4.2.2 Modification of consents granted by the Court

If an application is made to modify a consent granted by the Court, Council will notify:

i) those persons who made submissions on the original application, by sending written notice to the last address known to Council;
ii) any other persons who own adjoining or neighbouring land and in the Council’s opinion may be adversely affected by the amended application;

In determining who is to be notified of the proposed modification, if Council is satisfied that the modification is of a minor nature, or of minimal environmental impact, the requirement for newspaper advertisement/site notice may be waived.

After determining an application for modification of consent granted by the Court, Council will send notice of its determination to each person who made a submission in respect of the application for modification.

4.2.3 Review of Determination

In the event that Council receives a request for a review of determination (section 82A application), Council will renotify:

i) those persons who made submissions on the original application; and
ii) in the event of amended plans being lodged with the request for review, any other persons who own adjoining or neighbouring land and in the Council’s opinion may be adversely affected by the amended application;
iii) in determining who is to be notified of the proposed modification, if Council is satisfied that the modification is of a minor nature, or of minimal environmental impact, the requirement for newspaper advertisement/site notice may be waived.
iv) this notification will give details of the likely timing and processing of the matter, but will not allow a formal time for submissions.
4.2.4 Complying Development Certificates

All complying development certificates issued or received by Council will be notified in accordance with the provisions of the Environmental Planning & Assessment Act & Regulations, after the determination of the application.

This courtesy notification letter is for advice only, and will contain no provision or period for submissions to be made regarding the application. The letter will advise that the details of the application are available for inspection at Council’s offices.

Upon receipt of a complying development certificate issued by an accredited certifier, or determination of a complying development certificate by Council, an advertisement will also be published in the local newspaper.

4.3 NOTIFICATION OF COUNCIL DECISIONS

Council is not obligated by legislative requirements to advise parties prior to the determination of any application. Council will as a matter of courtesy, endeavour to notify the applicant and all people who made submissions of the proposed determination of a development application that was subject to submissions, prior to the determination of the application.

Council will publish a notice of its decision on an application in a local newspaper (or other appropriate newspaper).

The notice will include a statement that a copy of the conditions relating to the application can be provided to anyone who made a submission on the application, including other documentation available for public inspection under the provisions of the Local Government Act 1993 and the Environmental Planning and Assessment Act 1979, except for reports which are deemed by Council to be confidential in accordance with the Local Government Act 1993.

Council will also notify all those persons who made submissions of the determination of the application.

The following page no. is 5-1
Section 5 – Subdivision

Overview
This Section of Council’s Development Control Plan has been prepared and adopted by Council to provide guidance for developers seeking to subdivide land within the Muswellbrook Shire. The guidelines outline Council’s general procedures and practices in respect to both planning and engineering requirements for subdivision within the Shire. The controls have been designed to encourage a consistent environmental design standard for subdivision, yet provide sufficient flexibility to accommodate the specific needs of a broad range of land use.

Compliance with these controls will facilitate the expeditious processing of development applications, engineering plans, construction approvals and release of the Original Plan of Subdivision.

While the success of this plan relies on the sound application of the development controls it contains, Council welcomes the submission of innovative design solutions. Appointments may be made to discuss any such proposals with staff of Council’s Environmental Services Division, either by telephone or by appointment, prior to lodgement of a formal development application. Council believes that the plan will encourage the approach required to produce quality subdivision for a range of housing, business, industrial and rural-residential land use.

The subdivision of land requires development consent under the provisions of the Environmental Planning and Assessment Act 1979.

Development consent is obtained by lodging a development application (DA) for approval by Council. The development application will need to be accompanied by the documents and fees referred to in this DCP.

Failure to provide complete or adequate subdivision information in accordance with the provisions of Section 2 of this DCP is likely to result in Council rejecting the application or unnecessary processing delays for which Council cannot be held responsible.

Applicants are strongly advised to seek the services of qualified surveyors, town planners or civil engineers where appropriate. All drawings submitted are required to bear the names of the persons responsible for the design/preparation of supporting documents.

This Section contains the following sub-sections:-

5.1 – Introduction
5.2 – Approval Process
5.3 – General subdivision requirements
5.4 – Rural/Rural Residential subdivisions
5.5 – Residential subdivisions
5.6 – Industrial Subdivisions
5.1 INTRODUCTION

The impacts of land subdivision, both environmental and socio-economic, are increasingly recognised and scrutinised. Not only is it considered that subdivision should occur with minimal environmental impact but, where practical, and particularly in the case of rural subdivision, some environmental benefit should result, through repair of environmental damage, revegetation of degraded areas, establishment of vegetation and wildlife corridors and buffers and the like.

This section provides comprehensive guidelines for the preparation and submission of development applications for the subdivision of land, where such a land use is permissible under the provisions of the Muswellbrook LEP 1989.

In particular, this section encourages applicants to prepare subdivision applications having regard to the range of matters likely to be considered in their assessment by Council staff, or in some cases, private certifiers. This section requires a thorough Site Assessment as the first stage of any proposal, and requires evidence of such assessment to be submitted as the basis of the Statement of Environmental Effects required with every application. Checklists are provided to assist applicants in carrying out the investigations required for different types of subdivision proposals.

For detailed engineering design and construction requirements for subdivision, reference should be made to the current version of AUS-SPEC (as amended by Council).

5.1.1 Application
This section applies to all land to which this DCP applies.

As a matter of Council Policy, this DCP shall be taken into consideration when determining applications for consent under section 138 of the Roads Act 1993.

Under the Roads Act, consent of the appropriate road authority is required for the following activities:
• erect a structure or carry out a work in on or over a public road
• dig up disturb the surface of a public road
• remove or interfere with a structure, work or tree on a public road
• pump water into a public road from any land adjoining the road.

Application forms and requirements for road opening permits and works under section 138 of the Roads Act can be obtained from Council.

5.1.2 Purpose
To provide detailed guidance to applicants in relation to preparation of development applications for subdivision.
5.1.3 Aims and Objectives

The principal objectives of this section of the DCP are to:

a) ensure that all subdivisions and the potential impacts of such subdivisions and subsequent development take account of the principles of environmental sustainability;
b) encourage solar efficient subdivision designs that will assist in ensuring that subsequent development is significantly more energy efficient than conventional development;
c) encourage the implementation of environmental buffers and provide opportunities for repair and enhancement of natural systems, especially on land previously degraded;
d) ensure that rural subdivision reinforces the rural character of the Muswellbrook LGA;
e) facilitate subdivision forms which have the effect of minimising environmental degradation, such as community title subdivisions;
f) ensure that subdivision and housing take account of physical constraints relating to flooding, landslip, bush fire, contaminated land, salinity etc;
g) further long term planning objectives contained in Muswellbrook LEP by the encouragement of lot creation consistent with those objectives;
h) ensure adequate vehicular access from the gazetted public road system to each new lot;
i) ensure all proposed lots are physically capable of development;
j) establish a consistent and coordinated approach to the creation of residential, rural residential, rural and commercial/industrial lots throughout the Muswellbrook LGA;
k) adopt criteria for residential, rural residential, rural, and commercial/industrial lots which ensures each lot is provided with an appropriate level of amenity, service and access;
l) ensure logical, efficient and orderly development of infrastructure;
m) ensure proposals integrate with other adjoining existing and planned uses;
n) facilitate the supply of residential lots of a wide range of sizes and shapes which reflect the objectives of Muswellbrook LEP, the availability of reticulated services and the need for frontage to public roads;
o) discourage the removal of prime agricultural land from agricultural production and to prevent adverse impacts upon the viability of established or potential agricultural activities;
p) protect cultural resources (places of cultural and environmental heritage value) from land use or management practices which will lead to their degradation or destruction.
5.2 APPROVAL PROCESS

5.2.1 Consent Authority
Development consent may only be obtained by lodging a development application with the “consent authority”. In most instances this is the Council. Development applications cannot be lodged with accredited certifiers.

The requirements for lodging a development application are contained with Section 3 of this DCP. These requirements include submission of preliminary engineering drawings at DA stage, and this will ensure that conditions imposed on any consent will be relevant to the extent of the proposed works.

Development consent does not cover the detailed construction aspects of subdivision. You will need to obtain a construction certificate prior to commencing any construction work on site.

5.2.2 Construction and Principal Certifying Authorities
All subdivisions are required to be consistent with this Development Control Plan.

If your subdivision requires development consent and involves construction works you will need to obtain a construction certificate prior to commencing works. A construction certificate can be issued by Council or an accredited Certifying Authority.

In order to obtain a construction certificate, engineering construction documentation must be submitted for approval by the Certifying Authority. Prior to lodging a construction certificate application, conditions of consent may also require certain water and sewer infrastructure works to be undertaken as part of a Notice of Requirements from Council’s Water and Waste Division. Any requirements contained within a Notice of Requirements relevant to construction are to be included or addressed in the Construction Certificate documentation.

Council’s requirements for design and construction are based on AUS-SPEC 1 Development Specification (as varied by Council). This comprehensive specification is available from Standards Australia and the variations can be obtained from Council’s Community Infrastructure Department.

Before you commence any construction works, you must advise Council of the date you intend construction works and nominate a Principal Certifying Authority. You must provide at least two days notice.

5.2.3 Certification of Works

a) Certificates
You may be required to obtain a certificate from Council as a condition of development consent. This is usually required in cases of subdivision involving civil infrastructure construction that is intended to revert to Council’s care and control. The certificate is required to certify that:

- Work has been completed and complies with the construction plans and specifications.
b) Subdivision certificates

A subdivision certificate is a certificate issued by Council on the final plan of subdivision that authorises the registration of the plan with the Land Titles Office. Council will issue this certificate upon application being made on Council’s form, payment of the appropriate fees and provision of evidence demonstrating compliance with all conditions of development consent.

In addition, works as executed plans and supporting documentation must be provided in accordance with Council’s requirements.

The submission of final plan of subdivision, road widening, Strata or Community Title subdivision or plan of consolidation for endorsement a detailed compliance report indicating compliance with the respective conditions of development consent.

Following endorsement by Council, the subdivision plan can be registered through the Land Titles Office.

Where s.88B instruments have been prepared in response to a Council imposed requirement they must be forwarded to Council with the linen plans of subdivision for Council’s consideration. S88B instruments and provisions that relate to matters that Council has not imposed are not considered to require Council endorsement.

The developer is required to maintain construction works for a minimum period of six (6) months following completion of construction as determined by Council.

To ensure satisfactory maintenance, a bond, either cash security or bank guarantee equal to 5% of the cost of the engineering works is to be lodged with Council following completion of civil construction works that are to revert to Council’s care and control with the application for a subdivision certificate prior to the release of the Linen Plan of Subdivision.

Bonds for outstanding works will only be considered on the following basis:

- Being necessary for establishment of vegetation;
- Being for a short period, generally not exceeding two years;
- The work being able to be bonded without serious impacts on: utility of the land; safety; or the environment;
- Be based on the estimated construction cost for council to have the work completed, should the developer default, multiplied by 1.6. This factor allows for such things as contingencies; inflation; overheads (eg. design, contracting and project management) and other costs.

c) Differences between final plan of survey and approved plan

When a plan of proposed subdivision is prepared, the applicant shall ensure that all detail contained on the plan reflects, as accurately as possible, the final intended subdivision.
Council, however, recognises that in some instances it is not possible to compile a plan of proposed subdivision to the exactness required on the final plan of survey that is ultimately lodged at the Land Titles Office, without undertaking extensive and costly work.

Upon preparation of the final plan of subdivision, should a discrepancy appear between the approved plan and final plan, Council may endorse the final plan subject to the following:

(i) The discrepancy is not greater than 2% of the measurements on the approved plan (boundary lengths or area);
(ii) The lot shape and layout is substantially the same as the approved plan;
(iii) The discrepancy will have negligible impact on the environment; and
(iv) Council did not receive significant objection as a result of the public notification process during the assessment process.

Where in the opinion of Council, the discrepancy is significant or not consistent with the above criteria, Council may request an application under Section 96 of the EPA Act, or in some cases, a new application.

5.2.4 Specific Areas
In some instances, structure plans or development principles plans have been prepared for specific areas within the land to which this DCP applies. Subdivision applications should conform with these adopted plans (see other sections for specific requirements), unless written justification for variation warrants Council's support.
5.3 GENERAL REQUIREMENTS FOR SUBDIVISION

5.3.1 Development Standards – Muswellbrook LEP

All land zoned for rural purposes (including rural-residential) and environmental protection zones have "development standards" for subdivision and associated dwelling entitlements included in the Muswellbrook LEP. These standards set the minimum lot size for subdivision and the corresponding dwelling entitlement. Development criteria may also be included. All applicants should refer to the Muswellbrook LEP to establish what the development standard is for any particular land use zone.

Development standards cannot be varied without a request being made in accordance with clause 24 of the LEP. Any application of this type must be referred to the NSW Department of Planning for concurrence, unless it is of a minor nature and can be dealt with under "assumed concurrence" provisions. Council will consider the development principles contained in the Muswellbrook LEP and the zone objectives (as well as any justification contained in the Statement of Environmental Effects and the submission under clause 24 to determine whether any variation should be supported.

In addition, the provisions of relevant legislation must be considered in any application as follows:-

5.3.2 Special Considerations

Objectives

a) To ensure that proposed subdivisions take into account the relevant provisions of applicable legislation.
b) To ensure that appropriate measures are incorporated into the subdivision proposal to address potential environmental issues

Controls

(i) If the land is located within a Proclaimed Mine Subsidence District, the Mine Subsidence Board shall be contacted to determine any specific requirements that are addressed within the Statement of Environmental Effects lodged with the Development Application. (For further information go to www.minesub.nsw.gov.au)

(ii) If the land is subject to significant bushfire risk, the provisions of “Planning for Bushfire Protection” issued by the NSW Rural Fire Service are addressed within the Statement of Environmental Effects lodged with the Development Application. (For further information go to http://www.rfs.nsw.gov.au/)

(iii) The Statement of Environmental Effects lodged with the Development Application is to include relevant details of land use history to determine the likelihood of the land being contaminated and requiring remediation. (See Section 21 of this DCP or State Environmental Planning Policy No. 55 for further information or go to http://www.planning.nsw.gov.au/assessingdev/pdf/gu_contam.pdf)

(iv) The provisions of Clause 5A of the Environmental Planning and Assessment Act 1979 may require the submissions of a flora and fauna assessment report with
the development application. See the guidelines for submitting applications in Section 3 of this DCP.

(v) Subdivisions which connect directly to a classified road or require concurrence under the provisions under State Environmental Planning Policy (SEPP) No. 11 – Traffic Generating Development will require concurrence from the Roads and Traffic Authority (RTA).

(vi) Subdivisions where there has been no Flood Risk Management Study, where the guidelines provided in the Floodplain Development Manual 2005 (published by Dpet of Water and Energy) shall be considered and applied (see Section C9 of the manual)

5.3.3 Adoption of AUS-SPEC

Council has adopted AUS-SPEC for the purposes of implementing this DCP.

Objectives

a) To ensure that all construction works associated with subdivision works are completed to an acceptable standard.

Controls

(i) In preparing design and construction documentation, any proposal shall have regard to any relevant provisions within AUS-SPEC (as amended by Council) that relate to that aspect of work, whether specifically mentioned within section of the DCP or otherwise.

(ii) If the development involves any subdivision work, preliminary engineering drawings of the work to be carried out must be submitted with the development application, indicating general compliance with the relevant provisions of AUS-SPEC.

(iii) Council will require design documentation to be certified by an appropriately qualified person as being in accordance with relevant provisions within AUS-SPEC.

(iv) Council will require all completed works to be certified in by an appropriately qualified person as being constructed in accordance with relevant provisions within AUS-SPEC.

5.3.4 Buffers

Objectives

a) Adequate buffers are provided between proposed development and existing development on adjoining land or where potential land use conflicts may arise.

b) The agricultural potential or residential amenity of land will not be diminished as a result of a subdivision proposal.

Controls

Compliance with Section 22 of this DCP.
5.4 RURAL/ RURAL-RESIDENTIAL SUBDIVISION

Application
This section applies to the subdivision of land within RU1, E3 and R5 zones under the Muswellbrook LEP.

5.4.1 Lot Size and Shape

Objectives

a) To ensure that proposed lots appropriately respond to existing site conditions, and are practical.

Controls

(i) Lots are able to accommodate a building envelope of 2000m$^2$ with a minimum dimension of 30m. Building envelopes should be located a minimum of 4m from significant trees and other significant vegetation or landscape features. Building envelopes should include the area for the siting of the dwelling-house, outbuildings, landscaping and on-site effluent treatment and disposal areas (if required and permitted).

(ii) The design of the subdivision takes into account any significant natural features on the site and these are retained.

(v) Vegetation which adds to the visual amenity of the locality and/or which is environmentally significant is preserved in the design of the subdivision proposal.

(vi) The width to depth ratio of allotments does not exceed 1:4. If lots are too elongated, land uses in rural or rural-residential areas may be restricted (e.g. the shape of long lots may preclude the establishment of farm dams.)

(vii) Lot layouts minimise the number of lots that have direct access to rivers, creeks, or streams.

5.4.2 Roads and Access

Objectives

a) Existing roads are upgraded to accommodate increased traffic arising from new subdivisions.

b) The impact of new road or access way works on adjoining residents is minimised.

c) Road and access way construction takes account of existing topography and vegetation.

d) Cut and fill is minimised and vegetation retained wherever practicable.

Controls

(i) Rural subdivision roads that are to revert to Council’s care and control shall be designed and constructed in accordance with Council’s AUS-SPEC No 1 (as varied by Council) Development Specification as follows:

   • Road Network: D1 Geometric Road Design.
5.4 Subdivision

- **Road Geometry**: D1 Geometric Road Design, in particular Rural Design Criteria. (Note: A hierarchy of rural roads is recognised in this specification consistent with projected traffic usage.)
- **Road Pavement**: D2 Pavement Design.
- **Bridges/Detention Basins & Other Structures**: D3 Structures/Bridge Design & D4 Subsurface Drainage Design.

(ii) Design details for access roads may be required during development application assessment.

(iii) A maximum of three (3) rural lots may gain access from a Right of Carriage Way within the subdivision, which must connect directly to a dedicated public road under the care and control of Council.

(iv) The right of carriageway must be constructed to a standard that will allow all weather access for a two wheel drive vehicle.

(v) ARTC comments will be sought when new level crossings are proposed or required, access to land relies on an existing level crossing, additional traffic is generated over level crossings without active protection, or development may impact safety elements. ARTC consideration would include legal or practical case that level crossing is still required, or there will be no increase in safety risk, demonstrated by safety analysis.

5.4.3 Crown Roads

**Background**

The EP&A Act requires Council to consider the question of access before granting development consent (i.e. granting development consent and leaving access via crown roads). Hence it is now mandatory that any works required by Council on Crown Roads will see them automatically transferred from the State Government to Council. However, Council will only consider transfer of a Crown Road to Council’s care and control where it is constructed to the standards required by this DCP. Implementation of these standards will not necessarily change the extent of the Council’s adopted road maintenance areas.

It is important that property owners purchasing land or intending to subdivide or develop land with frontage to a Crown Road or other unmaintained road do so in the knowledge that maintenance of the existing access is not a responsibility of Council. This should not give rise to expectations of Council upgrading or maintaining access in the future.

Further inquiries of Council at the time of purchase or prior to preparation of an application would provide reliable information on access and building entitlements. While it is incumbent on any prospective purchaser or developer to make such inquiries as necessary regarding their decision to purchase, Council has a responsibility to ensure that it is not allowing development of remote areas with sub-standard services.

Crown roads are public roads by virtue of Section 267 Savings, Transitional and Other Provisions of the Roads Act (Schedule 2 Part 2 Division 4 Section 56). Crown roads were therefore dedicated as public roads for the purposes of the Act and have the same legal status as all public roads. The difference between public roads is the responsible Roads Authority.

The term “dedication” is relevant to particular sections of the Act and past actions.
regarding road status are not commonly used nowadays in reference to dedicating a Crown road to the public as a Council road. It is more appropriate to use the term “road transfer” to Council.

Due to financial considerations, Council will not necessarily accept responsibility for newly constructed roads even though they meet the standards required under previous approval regimes.

Each application for transfer/dedication/construction/maintenance will be considered independently based on available evidence of:

- Past and present maintenance commitments by Council
- Potential for further subdivision giving rise to a need for improved access
- Existing road condition in relation to AUS-SPEC design requirements.
- Long term cost to Council of maintaining the extended length of road
- Degree of self help proposed by developers and landholder/s for:
  a. construction
  b. maintenance

Access is a consideration under Section 79C and conditions requiring upgrading will be imposed on properties which front a Crown, public unmaintained road or public maintained road.

All newly created roads to be dedicated to Council will be constructed by the developer at the developers cost in accordance with AUS-SPEC design requirements.

For development on an unmaintained or Crown Road the Developer will be required to improve the full length of the road network that is to be used by the development to meet the minimum standard as detailed in AUS-SPEC design requirements and may also be required to undertake additional road improvements especially in regards to safety.

Where the improvements to the road that would be required by the developer are considered to be excessive by Council staff the development will be recommended for refusal.

For development on a Council maintained road the developer may be required to undertake improvements along the road network that services the development to meet the minimum standard as detailed in AUS-SPEC design requirements. Safety issues along the entire road leading to the development will be addressed by the developer in addition to any substandard sections (in relation to AUS-SPEC design requirements) immediately fronting the subject land.

Where these improvements to the road that would be required by the developer are considered to be excessive by Council staff the development will be recommended for refusal.

For development other than subdivision, traffic generation and Average Annual Daily Traffic (AADT) for the road that the development is located on shall be used to determine staged upgrading costs and contribution rates respectively. The standard to be adopted in AUS-SPEC shall have regard for all lots (including the proposed lots
under the development) to be serviced by that section of road. The cost of any upgrades to the Road will be borne by the developer.

**Objectives**

a) To ensure that Crown Roads transferred to Council are constructed to an acceptable standard.

b) To prevent future generations bearing the cost of roadworks that should have been provided at the time of subdivision.

**Controls**

(i) Council will only consider dedication of a road or transfer of a Crown Road to Council’s care and control where it is constructed to relevant AUS-SPEC standards referred to in this DCP, taking into consideration all the issues raised within section 6.4.3 of this DCP.

**5.4.4 Soil and Water Management**

**Objectives**

a) The quality of runoff water from the subject land is the same or better than the quality of water prior to the subdivision taking place.

b) Drainage from proposed lots is consistent with the pre-development stormwater patterns and flow regime.

**Controls**

(i) Compliance with section 20 and 25 of this DCP.

**5.4.5 Effluent Disposal**

**Objectives**

a) Effluent and waste water is disposed of in a manner which is consistent with the land capability of the property.

b) Effluent and waste water is disposed of in a manner that will not cause unhealthy or unsanitary conditions.

c) No adverse impact is to be caused to the environment generally.

**Controls**

(i) Where sewer is not available or within 75m of the subdivision, all effluent must be retained and disposed of on-site. No pump-out systems will be permitted.

(ii) Council may require submission of a geo-technical investigation report in certain cases, depending upon soil conditions, number of lots proposed, size of allotments and the like.

(iii) Disposal of effluent must not create a health nuisance or pollution particularly in relation to nutrients infiltrating into bushland and/or water courses.
(iv) The proposed on site waste treatment system is designed to/ or is considered able to comply with the provisions of Section 23 of this DCP.

5.4.6 Flora and Fauna

Objectives

a) To ensure that existing vegetation is retained unless it is demonstrated that this is impractical in the circumstances
b) To ensure that impacts of subdivisions on existing flora and fauna is minimised.

Controls

(i) Vegetation cover is retained where ever practicable as it acts to stabilise soils, minimise runoff, acts as a pollutant trap along watercourses and is important as a habitat for native fauna.
(ii) Vegetation is retained where it forms a link to other bushland areas, buffer zones, wildlife corridors and the like.
(iii) Allowance for the movement of fauna species on sites is maximised to maintain biological diversity.
(iv) Subdivision proposals are designed to minimise disturbance to existing vegetation.
(v) Vegetation which is scenically and environmentally significant is retained.
(vi) Vegetation which adds to the soil stability of the land is retained.
(vii) Subdivision proposals are designed so as to minimise fragmentation of bushland.
(viii) Opportunities for revegetation will be pursued as part of the subdivision process as a trade off for site development and as a means of value adding to the environment. In particular, revegetation of any existing creeks, streams and drainage lines, or repair and revegetation of eroded or otherwise degraded areas is considered.
(ix) Under-scrubbing is not undertaken.
(x) Degraded areas are to be rehabilitated as part of the subdivision.
(xi) Watercourses and drainage lines to be retained as part of the subdivision scheme are to be stabilised and revegetated with appropriate native species.
(xii) Environmentally sensitive areas are to be preserved and enhanced with appropriate native vegetation where necessary.

5.4.7 Visual Amenity

Objectives

a) Subdivision proposals are designed so that subsequent development will have minimal impact on significant views and vistas.
b) Subdivisions are designed to compliment the landscape rather than altering the landscape to suit a subdivision layout.
c) Subdivision proposal is compatible with the cultural and landscape characteristics of the locality or region.
### Controls

(i) Building envelopes, accessways and roads shall avoid ridge tops and steep slopes.

(ii) Subdivision of escarpments, ridges, and other visually interesting places are managed in such a way that the visual impact rising from development on newly created allotments is minimal.

(iii) Subdivisions are designed so that, when subsequently developed, visually significant vegetation, such as that found on ridge tops and other visually prominent locations will be retained.

(iv) Proposals to subdivide visually sensitive or prominent areas will require visual impact assessment to be addressed within the Statement of Environmental Effects.

#### 5.4.8 Heritage

**Objectives**

- a) Heritage items and their curtilage are retained where possible.
- b) Subdivision is sympathetically designed to minimise the impact on heritage items of the subject land or adjoining lands.
- c) Adequate curtilage is provided around heritage items to provide an appropriate buffer.

**Controls**

(i) A subdivision proposal on land which contains, or is adjacent to, an item of environmental heritage as defined in the Muswellbrook Local Environmental Plan is to illustrate the means proposed to preserve and protect such items. In this respect a conservation plan, detailing how the item would be restored if necessary, should accompany the application.

(ii) Where a heritage item is in a state of disrepair, Council may negotiate its restoration as part of the subdivision proposal, having regard to both the need for a viable subdivision, and the desirability of maintaining heritage items for future generations.

(iii) Subdivision of land to create 3 or more lots will require consultation with the Local Aboriginal Land Council or an Aboriginal Archaeology Assessment Report must be prepared in accordance with the recommendations of the Department of Environment and Climate Change.

#### 5.4.9 Utility Services

**Objectives**

- a) All lots created have an adequate provision of utility services and not result in a detrimental impact on the environment.
- b) The provision of utility services does not detrimentally impact on the landscape character of an area, or detrimentally impact vegetation corridors.

**Controls**
(i) Adequate water supplies for both domestic and fire fighting purposes must be available.

(ii) Electricity shall be provided to all lots, except for those considered by Council to be “remote”, where an alternative supply proposal is provided and the requirement may be waived and a covenant placed on the title of the land where possible.

(iii) Where available, connection to reticulated sewage disposal systems will be required.

(iv) The design and provision of public utilities conform to the cost effective criteria of the relevant servicing authority.

(v) Compatible public utility services are located in common trenches so as to minimise the land required, soil erosion and the cost of providing the services.

(vi) Adequate buffers are maintained between utilities and houses to protect residential amenity and health.

5.4.10 Hazards

Objectives

a) Subdivision proposals are designed so as to enable separation between future dwellings and potential bush fire fronts.

b) Subdivision of flood prone land does not result in increased risk to life or property both on the subject land and adjoining lands.

c) Subdivision of land that has been identified as being prone to landslip does not increase the risk to life or property on the subject land or adjoining lands.

d) Subdivision proposals are designed to take account of any known contamination of the site, and remediation works undertaken if required.

e) No adverse impacts on existing or possible use of surrounding lands occur as a result of the subdivision proceeding.

Controls

(i) Where a subdivision proposal is located on bushfire prone land the applicant must comply with the NSW Rural Fire Services’ document, “Planning for Bush Fire Protection”. In general, Council will not favourably consider subdivision of heavily vegetated land in bush fire prone areas where the subdivision will require subsequent clearing of vegetation to meet required radiation zones, access requirements and the like.

(ii) In accordance with the requirements of the abovementioned documents, details shall be provided regarding the dimensions of the fire protection zone and arrangements and maintenance for access for bush fire fighting vehicles. Two separate points of access may be required in some circumstances.

(iii) Where a subdivision proposal is on land identified as being potentially subject to landslip, the applicant shall engage a geotechnical consultant to prepare a report on the viability of subdividing the land and if viable provide recommendations as to the siting and the type of buildings and waste water treatment systems which could be permitted on the subject land.

(iv) Where a subdivision proposal is on land identified as being potentially subject to flooding, the applicant shall engage a hydrological or hydraulic consultant to
prepare a flood study on the and is necessary, a Floodplain Risk Management study.

(v) Development adjacent to rail corridors identified in clause 31 of the LEP will require an acoustic report to be submitted to Council to address and indicate measures to mitigate potential impacts from noise and vibration. Relevant publications available from “Railcorp” for consideration are:-

- *Rail Related Noise and Vibration; Issue to Consider in Local Environmental Planning*
- *Interim Guidelines for Councils - consideration of rail noise and vibration in the planning process*
- *Guidelines for applicants - consideration of rail noise and vibration in the planning process*

(vi) Comply with Section 13 of this DCP.
5.5 RESIDENTIAL SUBDIVISION

Application
This section applies to the subdivision of land within R1 and RU5 zones under the Muswellbrook LEP.

5.5.1 Local Street Design

Objectives

a) Street widths are to reflect the role and function of the street in the road hierarchy and traffic generation, in accordance with Council’s adopted strategic plans.
b) Junctions along residential streets are to be spaced to create safe and convenient vehicle movements.
c) The street network is to create a convenient route for residents between their home and higher order roads.
d) The street network is to facilitate walking and cycling within the neighbourhood and to local activity centres.
e) The street network is to be orientated where practical, to promote efficient solar access for dwellings.
f) The street network is to take into account existing topography and existing open space systems and natural constraints.
g) Streets shall not operate as through traffic routes for externally generated traffic while at the same time limiting the length of time local drivers need to spend in a low speed environment.
h) Streets are to be designed to allow on street car parking.
i) Streets and lots are to be located so that residential dwellings are not subjected to unacceptable traffic noise.
j) Streets are to be designed to cater for service vehicles.

Controls

i) Design specifications for public streets shall generally be as follows:

<table>
<thead>
<tr>
<th>No. Of Allotments</th>
<th>Road Reserve Width (metres)</th>
<th>Minimum Carriage Way Width</th>
<th>Parking Provision</th>
<th>Kerb Type</th>
<th>Footpath requirement (metres)</th>
<th>Cycleway requirement (metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;10 (local road – or up to 300 vehicle trips per day)</td>
<td>13.0m*</td>
<td>6.0m</td>
<td>Verge</td>
<td>Rollover</td>
<td>Nil – unless part of nominated network</td>
<td>Nil – unless part of adopted network</td>
</tr>
<tr>
<td>10 – 200 (local road – or up to 2000 vehicle trips per day)</td>
<td>18.0m (4.0m verges)</td>
<td>7.5m (up to 1000 vehicles) or otherwise 9.0m</td>
<td>Carriage way</td>
<td>Rollover/barrier</td>
<td>1.2m (on one side of street)</td>
<td>Nil – unless part of adopted network</td>
</tr>
<tr>
<td>200 – 400 (urban collector – or up to 3000 vehicle trips)</td>
<td>20.0m (4.0m verges)</td>
<td>11.0m</td>
<td>Carriage way</td>
<td>Barrier</td>
<td>1.2m (both sides of street)</td>
<td>Nil – unless part of adopted network</td>
</tr>
<tr>
<td>Subdivision</td>
<td>Carriageway</td>
<td>Barrier</td>
<td>1.2m</td>
<td>2.0m on one side or dedicated lanes (1.5m) on carriageway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------------</td>
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<td>--------------------------------------------------------</td>
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<td></td>
</tr>
<tr>
<td>&gt; 400 (sub-arterial or arterial – or up to 6000 vehicle trips per day)</td>
<td>20.0m (4.5m verges)</td>
<td>13.0m</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*May be reduced to a minimum of 10 metres where access is required on only 1 side of the road.*

1) The classification and design of roads as local, collector or arterial is to be derived from AUSSPEC guidelines.

2) Any variations to the above criteria are to be assessed and justified against AUSSPEC guidelines.

3) Culs-de-sac should not exceed 200 metres in length unless topographic constraints render other options impracticable.

4) Streets should be designed to provide interest and variety in the streetscape through kerbs (where appropriate), landscaping and paving treatments. The street design should be compatible with the existing road pattern in the locality.

5) No more than 3 turning movements at intersections should be required in order to travel from any home to the most convenient collector street or higher order road.

6) The minimum spacing of staggered junctions in a local street network should be 20 metres.

7) Any subdivision proposal adjoining a rear lane shall be designed so as to provide both vehicular and pedestrian access to the front street. Conversely, Council will not require the upgrading of rear lanes where vehicular and pedestrian access has been provided to the front street.

8) Cul-de-sac for residential roads should have minimum seal radii of 8.5 metres and boundary radii of 12.0 metres.

ii) For residential subdivision, the carriageway, verge and road reserves shall be in accordance with Council’s AUS-SPEC No 1 (as varied by Council). Subdivision roads shall be designed in accordance with AUS-SPEC No 1 (as varied by Council) Development Specification as follows:

- **Road Network & Road Geometry**: D1 Geometric Road Design.
- **Pedestrian Movements**: D9 Cycleway and Pathway Design.
- **Road Pavement**: D2 Pavement Design.
- **Bridges/Detention Basins & other Structures**: D3 Structures/Bridge Design & D4 Subsurface Drainage Design.

Within the internal road network of residential area, up to four distinct levels of roads may be provided. They are:

**Access Street:** A minor road which carries the lowest volume of traffic, providing driveway access to no more than three lots on each side or forming a link between two access places. Vehicle, pedestrian and recreation use is shared, with design to encourage priority for pedestrians.

**Local Street:** A minor road which carries a higher volume of traffic and provides direct access to lots. Vehicle, pedestrian and recreation use is shared, with traffic access having priority.

**Collector Road:** A road linking access streets to major roads, possibly providing bus routes and giving restricted access to lots.
Distributor: A road which connects the internal road network with an external major (arterial) road network and giving restricted access to lots.

iii) Intersections shall be either T-Junctions or roundabouts.
(iv) The road network shall conform to a strategic plan for the area showing an existing and proposed major road network above the level of a collector road which satisfies the projected need of the neighbourhood.
(v) Private access ways should be restricted wherever possible on distributor roads.
(vi) In relation to narrower streets, adequate provision should be made for garbage collection services and the entry of other large service vehicles.
(vii) The road network shall be designed to accommodate bus routes (generally along collector roads) within 400m direct distance of all dwellings. It should also provide opportunities for road connections to adjoining land, in accordance with an overall subdivision concept or as agreed by Council.

5.5.2 Access Way Design

Objectives

a) Access way design are to provide safe and efficient entrance/exit to individual lots.
b) Access ways are to be landscaped and treated so as to reduce the visual and environmental impact of hard paved areas.
c) Access way designs are to minimise the impact on the amenity and future management of the existing and future dwellings.

Controls

i) Access ways are to be designed in accordance with AUSSPEC and AS2890.1.
ii) Access ways shall have a minimum sealed width of 3.0 metres.
iii) Access ways shall not serve more than three (3) lots.
(iv) Access ways shall be nominated as reciprocal rights of way on the plan of subdivision.
(v) Access ways shall have a maximum grade of 25% (1:4) at any point.
(vi) The following standards apply to lots with battle axe handles:

<table>
<thead>
<tr>
<th>No. Of Allotments</th>
<th>Minimum Width Of Battle-Axe Access Handle (Metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3.5</td>
</tr>
<tr>
<td>2</td>
<td>5.0</td>
</tr>
<tr>
<td>3</td>
<td>2.0 per lot</td>
</tr>
</tbody>
</table>

(vii) Access ways shall be sited away from noise and visually sensitive components of existing and future dwellings.
(viii) Where possible access ways shall be located on the south side of existing and future dwellings.
(ix) Access ways are to provide interest and variety and avoid lengthy straight sections.
(x) Where the site is steep or fronts a local collector or higher order road (greater than 3,000 vehicles per day) or an area with high pedestrian traffic, access ways are to be designed so that vehicles can be driven both onto and off the property in a forward direction.

(xi) Where vehicles would otherwise have to reverse more than 50 metres, a turning area is to be provided to enable the vehicles to enter and leave the site in a forward direction and reduce the need to reverse over long distances.

(xii) Passing bays shall be provided every 30 metres in accordance with AS 2890.1

### 5.5.3 Pedestrians and Cyclists

**Objectives**

a) Pedestrian and cycle networks are provided in accordance with Council’s adopted strategic plans.

b) The location of footpaths or cycle paths are defined using the following parameters:
   - Demand for footpaths and cycle paths;
   - Opportunities to link open space networks and communities including public transport, local activity centres and schools;
   - Topography;
   - Cyclist and pedestrian safety, including Crime Prevention Through Environmental Design (CPTED) guidelines.

c) The alignment of footpaths allow safe and convenient use by pedestrians and cyclists and should be variable enough to accommodate trees and other significant features.

d) Paths designed to enable widening at certain points to allow passing facilities for pedestrians/cyclists.

e) Pedestrian and cyclist paths are constructed to provide a stable and attractive surface for projected users which is easily maintained.

**Controls**

i) No footpaths are required on streets with a traffic volume less than 300 vehicles per day as pedestrians can share the road surface with vehicles in a low speed environment.

ii) Pedestrian and cycleways shall be designed in accordance with AUS-SPEC No 1 (as varied by Council) Development Specification as follows:
   - Pedestrian Movements: D9 Cycleway and Pathway Design.

iii) In all but exceptional circumstances, Council will require the provision of pedestrian pathways at the end of a cul-de-sac to facilitate pedestrian access to community facilities such as open space, schools and neighbourhood shops and to ensure that provision is made to alternative access to and from cul-de-sacs.

iv) Footpaths are to be provided on one side of streets with traffic volumes between 300 vehicles per day and 2,000 vehicles per day and on both side of streets with traffic volumes over 2,000 vehicles per day.
5.5.4 Utility Services

Objectives

a) All lots created for residential purposes are to have adequate provision of services and not result in a detrimental impact on the environment.

b) The design and provision of public utilities are to conform to the cost effective criteria of the relevant servicing authority.

c) Compatible public utility services are to be located in common trenches so as to minimise the land required, soil erosion and the cost of providing the services.

d) Adequate buffers are to be maintained between utilities and houses to protect residential amenity and health.

Controls

(i) Sewerage services are to be provided in accordance with the written requirements of Council.

(ii) Water supply services are to be provided in accordance with the written requirements of Council.

(iii) Street lighting is required in all streets in accordance with the requirements of the energy utility.

(iv) Provision of written evidence of compliance with the requirements of all relevant service authorities (electricity, telephone, etc.) prior to release of construction certificate or subdivision certificate, as may be appropriate.

(v) Underground power must be provided to all lots in new release areas.

5.5.5 Stormwater Management

Objectives

a) Drainage from subdivision sites is consistent in both water quality and quantity terms with the predevelopment storm water patterns.

b) Drainage systems are designed so as to ensure safety and minimise the likelihood of storm water inundation and flooding of existing and future dwellings.

c) Adequate provision is made for measures during construction to ensure that the landform is stabilised and erosion controlled.

d) Natural drainage systems are incorporated into designs.

Controls

(i) Storm water management systems shall be designed and constructed in accordance with section 25 of this DCP
5.5.6 Lot Size and Shape

Objectives

a) Lots have an appropriate area and dimensions for the siting and construction of a dwelling and ancillary out buildings, the provision of private out door space and convenient vehicle access and parking.
b) To provide usable areas, lot sizes are increased where sites are steep or contain significant landscape features including water courses and easements.
c) Lot sizes and dimensions enable dwellings to be sited to:
   • Protect natural and cultural features;
   • Acknowledge site constraints including soil erosion and bush fire risk; and
   • Retain special features such as trees and views.
d) Lot sizes shall meet with the projected requirements of people with different housing needs and provide housing diversity and choice.
e) Lot sizes and configurations are to be varied to provide a mix of allotment types which create pleasant street scapes and encourage a variety of housing types.
f) Lots are to be configured to account for significant natural landscape elements or utility constraints and be designed to minimise environmental impact.

Controls

(i) In order to ensure consistency with section 6 of this DCP (densities) allotment specifically identified as suitable for multi dwelling housing should be nominated as dual occupancy or multi dwelling housing lots in DAs for residential subdivision of > 10 lots and must be <20% of lots in a subdivision.
(ii) “Battleaxe” or “Hatchet” shaped lots shall have a minimum area of 750m$^2$.
(iii) Allotments shall have a minimum width of 18 metres at the building line. Council may consider a lesser dimension but only as part of an integrated housing development.
(iv) The dimensions for access corridors for battle-axe shaped allotments are as follows:
   - Maximum Length = 60 metres
   - Minimum Width = 3.5 metres
   - Minimum width of shared access corridor = 5.0 metres
(v) No more than 3 allotments are served by a private access way.
(vi) Vegetation which adds significantly to the visual amenity of a locality and/or which is environmentally significant or of habitat value should be conserved in the design of the subdivision proposal.
(vii) Lots should be designed to allow the construction of a dwelling with a maximum cut or fill of 1 metre from the natural ground level.
(viii) Lots should be able to accommodate a building envelope of 200m$^2$ with a minimum dimension of 10 metres.
(ix) Lot layouts minimise the number of lots that have direct access to rivers, creeks, or streams.
5.5.7 Solar Access and Lot Orientation

Objectives

a) Lot sizes reflect reasonable consideration of the impact of topography and aspect to maximise solar access;
b) Lots are of a suitable shape to permit the location of dwellings with suitable solar access and private open space;

Controls

(i) Staggering of lots and extensive use of landscaping is encouraged to reduce adverse wind impacts and create streetscape variety and interest.
(ii) Lot orientation shall take into account the various types of dwellings which may be constructed on them. Ensure that potential indoor living and related private open space areas of future dwellings can be orientated to the north. Consider the possible overshadowing impact on existing or future adjoining buildings. Consideration of road orientation is an important factor in influencing lot orientation to achieve an energy efficient subdivision.
(iii) Roads running east-west provide for good orientation of lots for solar access to dwellings and private open space, while maintaining a narrow lot frontage. This will contribute to minimising the lengths of street, utility and service related infrastructure. On roads running north-south, lots may need to be widened to provide for solar access and to prevent overshadowing of dwellings and private open space.
(iv) Where the land has a slope generally greater than 5%, road and lot design should provide for dwellings to be generally parallel with the contours to minimise earthworks. Special care should be taken in the configuration of roads and lots to:
   • Minimise boundary retaining walls, particularly associated with building to the boundary line;
   • Minimise loss of privacy (overlooking);
   • Maintain solar access where slopes face south. A greater distance between dwellings will generally be required to achieve the same solar access as on level sites or north facing slopes.

5.5.8 Heritage

Objectives

a) Heritage items should be retained.
b) Subdivision should be sympathetically designed to minimise the impact on heritage items and curtilage of the subject land or adjoining lands.
c) Subdivisions should be sympathetically designed to ensure that the existing heritage value of the streetscape and character of the area is maintained.

Controls
A subdivision proposal on land which contains or is adjacent to an item of environmental heritage as defined in Schedule 5 of Muswellbrook Local Environmental Plan shall illustrate the means proposed to preserve and protect such items.

Subdivision of land to create 3 or more lots will require consultation with the Local Aboriginal Land Council or an Aboriginal Archaeology Assessment Report must be prepared in accordance with the recommendations of the Department of Environment and Climate Change.

5.5.9 Site Works

Objectives

a) To ensure that subdivision earthworks maintain existing topography and contours.
b) To ensure that appropriate provisions are in incorporated into the subdivision to minimise any environmental impacts associated with changes to natural ground levels.

Controls

(i) The natural surface contours shall be reviewed and where necessary, the finished surface levels shall be designed accordingly to ensure the land is suitably prepared.
(ii) Siteworks shall be planned to allow topsoil to be striped, stockpiled and reused on the site. No soil is to be removed from the site without Council’s consent.
(iii) Filling and leveling shall not adversely affect adjoining land and shall be carried out as indicated on the approved engineering plans.
(iv) Site regrading is to be employed and undertaken in accordance with Council’s AUS-SPEC No. 1 (as varied by Council) Development Specification D6 Site Regrading and in accordance with AS 3798.
(v) Any proposed filling is to consist of a sound clean material of a reasonable standard and free of large rocks, stumps, organic matter and other debris. Placing of fill on prepared areas shall not commence until approval has been granted by Council. Geotechnical certification may be required to indicate compliance with Australian Standards AS 2870 (Residential Slabs and Footings).
(vi) Levels shall be constructed to ensure that lots drain to the street and/or an existing or proposed stormwater drainage system. Where required, a system of interallotment drainage shall be installed to prevent ponding of water or intensification of runoff onto adjoining land.
(vii) Separation fencing is provided between development land and any rail corridor.

5.5.10 Open Space

The location, layout and design of subdivision and development surrounding public open space should minimise potential problems relating to personal security and surveillance, property security, vandalism and poor visual amenity in relation to the park and its boundaries. This may be achieved by:
• bounding public open spaces with streets and ensuring adjacent lots front and
• overlook open spaces;
• where streets cannot be provided, battle-axe lots may front to parks and public
open space; and
• providing access to parks via the local street system rather than pedestrian
access ways.

Local, neighbourhood and district parks are to be created to provide landscaped areas
for passive enjoyment and/or for informal recreation and non-organised leisure.
Parks are to be of varying sizes that respond to the topography, subdivision pattern and
other open space elements.

Greenway links are to be provided to ensure connectivity between the open space
proposed in the subject development, other existing and proposed areas of public open
space and places, commercial centres and schools.

Objectives

a) To ensure that an adequate amount of public open space is provided to serve the
residents of new subdivisions.
b) To ensure that residents have convenient access to public open space that
serves local recreational needs.
c) To encourage opportunities to link open space networks, community facilities,
and public services to service new residential development.
d) To encourage the provision and retention of significant vegetation within public
open space areas.
e) Public open space is to be distributed so that it contributes to the legibility and
character of the development, provides for a range of uses and activities, is cost-
effective to maintain and assist with urban water management.

Controls

(i) Provision of local or neighbourhood public open space to be provided within the
proposed subdivision at a rate of 1.0ha per 1000 people (or part thereof) based
on a dwelling occupancy rate of 2.63 persons per lot, in accordance with the
table below.
(ii) Casual open Space (parks) for community recreation, social needs and passive
enjoyment is required to be dedicated and embellished.
(iii) Aquatic environments, natural watercourses, riparian buffers and foreshores
within the development site must be dedicated to the public as reserve, and not
as open space on any proposed plan of subdivision.
(iv) Dual use of drainage facilities for open space purposes is encouraged as a
means of establishing a linked open space network, however only those parts
of the drainage areas that is in excess of that required for riparian management
and buffers will be credited towards open space commitments. The linear
shaped land which is used and predominantly occupied by connecting
pedestrian/cycle paths will not be accepted as casual open space.
(v) Environmentally sensitive areas and visually significant topographical/landform
features within the development site should be dedicated to the public unless
their environmental/scenic/visual values and appropriate management can be guaranteed in perpetuity in private ownership.

(vi) Details of proposed street tree plantings are to be provided.

(vii) Appropriate attention is to be given to the following factors:

- General landscape theme (i.e. evergreen/deciduous);
- Climatic considerations (i.e. wind conditions and variation in sunlight);
- Use of water and drainage areas for recreation and visual amenity;
- Planting themes and grouping of plant types (eg. For privacy, screening etc.);
- Choice of surface finishes (eg. Paving) and outdoor furniture to reflect a theme.

TABLE: LOCAL & NEIGHBOURHOOD PARKS - DEVELOPMENT STANDARDS

Areas of landscaped green space that enhance the amenity and character of the neighbourhood and provide space for leisure and/or informal recreational pursuits, may include a play area being a small intimate space used for children’s play and adult respite.

<table>
<thead>
<tr>
<th>Local Public Open Space Development Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Area</strong></td>
</tr>
<tr>
<td><strong>Shape</strong></td>
</tr>
<tr>
<td><strong>Landform</strong></td>
</tr>
<tr>
<td><strong>Access</strong></td>
</tr>
<tr>
<td><strong>Road frontage</strong></td>
</tr>
<tr>
<td><strong>Amenities</strong></td>
</tr>
<tr>
<td><strong>Services</strong></td>
</tr>
</tbody>
</table>
5.6 INDUSTRIAL SUBDIVISION

Application
This section applies to the subdivision of land within IN1 and IN2 zones under the Muswellbrook LEP.

5.6.1 Lot Sizes and Shapes

Objectives

a) Each proposed lot offers maximum utility in terms of building space and accessibility bearing in mind the requirements of modern industrial activity.
b) Lot sizes for the different types of industrial subdivision will vary according to functional purpose.
c) In considering an application for subdivision, Council will have regard to the following factors:
   - If the subdivision involves the creation of a significant number of lots then provision should be made for a variety of lot sizes;
   - The overall pattern of lot sizes in the locality and the type of industrial activity characteristic of the locality in which the subdivision is located.

Controls

(i) The minimum width of a lot in an industrial zone shall be 30 metres at the building line. Lot widths of less than 30 metres will be considered where lots are part of an integrated industrial development
(ii) Battle-axe shaped allotments shall comply with the minimum width at the building line stated above. Battle-axe handles shall have a minimum width of 8 metres.
(iii) The above standards have been imposed to ensure that lots have dimensions which permit the safe manoeuvring of trucks within the lot so that trucks and cars can leave the lot in a forward direction.
(iv) The size of lots should provide sufficient space to accommodate the industrial operations and buildings envisaged, make allowance for possible future expansion and allow the site to function properly and efficiently in terms of development requirements. These requirements may relate to factors such as:-
   - safe ingress and egress
   - vehicular movement with the curtilage of the site
   - parking
   - deliveries
   - storage and bin areas
   - boundary setback requirements
   - landscaped areas

5.6.2 Access and Road Layout

Objectives

a) Road layouts and access points are designed to provide for the safe and efficient movement of traffic to and from each proposed lot within the industrial areas.
b) Access from individual lots to major roads are minimised. The use of minor roads for such access is desirable where ever practicable.

Controls

(i) The following design requirements generally apply to roads servicing industrial lots:

<table>
<thead>
<tr>
<th>Road Reserve Width</th>
<th>Carriage Way Width</th>
<th>Minimum Footway</th>
</tr>
</thead>
<tbody>
<tr>
<td>20 metres</td>
<td>11 metres</td>
<td>3.5 metres</td>
</tr>
</tbody>
</table>

(ii) Industrial and Commercial subdivision roads shall be designed in accordance with Council’s AUS-SPEC No 1 (as varied by Council) Development Specification as follows:
- Road Network: D1 Geometric Road Design.
- Road Geometry: D1 Geometric Road Design.
- Road Pavement: D2 Pavement Design.
- Bridges/Detention Basins & other Structures: D3 Structures/Bridge Design & D4 Subsurface Drainage Design.
- Construction of the roads will be in accordance with Council’s AUS-SPEC No 1 (as varied by Council) Development Specification - Construction.

(iii) Culs-de sac for industrial roads are to be avoided, but where they are considered the only option, are to have minimum kerb radii of 13.5 metres and boundary radii of 17.0 metres and be AC surfaced.

(iv) Battle-axe lots may be acceptable for light and service industries which are not serviced by larger vehicles. Details such as the shape of the effective lot area, the need for truncation in the lot and the width of the access handle will be determined on a case by case basis.

(v) Vehicular access from allotments to a public road are capable with complying with the provisions of AS2890.1 and the RTA’s Guidelines for Traffic Generating Development.

(vi) Direct vehicular access to major roads from within individual lots is avoided.

5.6.3 Utility Services

Objectives

a) New industrial lots are provided with all services including water, sewer, stormwater drainage, power, telephone and gas where appropriate.

Controls

(i) Connection to a reticulated sewerage system is a normal requirement of an industrial subdivision. However, where a reticulated sewerage connection is not available and is not likely to be available for some time, the council may consider Development Applications on the basis that:
- It is satisfied that the development will be limited to "dry industry";
- Any application for industrial subdivision in unsewered areas is accompanied by an effluent disposal report.

(ii) All industrial subdivisions shall be connected to the power, telephone and water supply for the locality.
(iii) Compliance with section 25 of this DCP.

5.6.4 Adjoining Development

Objectives

a) Industrial land uses should be compatible with adjacent commercial and or residential areas.

Controls

(i) The applicant may be required to indicate how the industrial land could be developed and also show the location of landscaping, building and other site planning techniques with the aim of minimising impact on adjoining commercial and or residential uses.
SECTION 6 – RESIDENTIAL DEVELOPMENT

Overview

Muswellbrook Local Government Area allows for a wide range of residential development. This development ranges from single dwellings, dual occupancies and residential flat buildings. This type of development is important to create a streetscape for newly release urban areas.

This Section contains the following sub-sections:-

6.1 - Built Form
6.2 - Urban Landscape
6.3 - Dual Occupancies, Multi Dwelling Housing and Granny Flats
6.4 - Environmental
6.5 – Site Operation

This Section applies to residential development in Zones R1, R5, and RU5 only.

6.1 BUILT FORM

This section addresses the various elements involved in building design. Emphasis is placed on the appearance, height and scale of buildings, together with measures for energy conservation and water management. Good neighbour measures are also included, particularly for maintenance of views and privacy. Other important elements include the provision of car parking and heritage considerations.

6.1.1 Context

Objectives

a) Site layout and building design responds to the existing characteristics, opportunities and constraints of the site and its context (adjoining land and the locality).

Controls

(i) Undertake a site analysis in accordance with Section 3 of this DCP.
(ii) Design the development to respond to the issues identified in the site analysis.

6.1.2 Front Setbacks

Objectives

a) The character and pattern of setbacks and building orientation within the street is reinforced
b) New development establishes a characteristic setback pattern to provide a consistent and landscaped setback that reduces the visual impact of buildings on the public domain.
Controls

(i) Front setback matches the alignment of the primary facades of adjoining buildings. Where different setbacks occur, use the average of the setbacks of those primary facades.

(ii) The minimum building line in new residential areas (where there are no adjoining dwelling houses) are to be:

<table>
<thead>
<tr>
<th>STREET TYPE</th>
<th>MINIMUM FRONTAGE SETBACK</th>
</tr>
</thead>
<tbody>
<tr>
<td>Local Street</td>
<td>4.5 metres</td>
</tr>
<tr>
<td>Collector Street</td>
<td>4.5 metres</td>
</tr>
<tr>
<td>Bulb of cul-de-sac</td>
<td>4.5 metres</td>
</tr>
<tr>
<td>New England Highway</td>
<td>10 metres</td>
</tr>
</tbody>
</table>
| Corner allotment        | 4.5 metres for primary frontage (dwelling entry) | Secondary frontage:
|                         | 2 metres for lots 450m² - 600m²; |
|                         | 3 metres for lots 600m² - 1500m²; |
|                         | 5 metres for lots > 1500m². |
|                         | (where no driveway access is proposed or provide 5.5m setback to garage door) |

(iii) The garage width on allotments should not exceed 50% of the site frontage, the remainder of which shall be landscaped.

6.1.3 Side and rear setbacks

Objectives

a) Adequate side and rear building setbacks for landscaping, privacy, natural light and ventilation between dwellings.

Controls

(i) A minimum side or rear setback for all dwellings of:
   o 0.9m for walls up to 3m in height;
   o 0.9m plus 0.3m for every metre of wall height over 3m and less than 7.2m
   o For that part of a wall over 7.2m in height, the minimum setback should be increased by 1m for every metre of height over 7.2m.

(ii) Walls may be built to the side and/or rear boundaries where:
   o The maximum wall height is 3m and there will be no impact on privacy, use of private open space and solar access to adjoining properties;
   o Any openings comply with the fire resistance levels of the Building Code of Australia and are in filled with translucent or opaque materials.
   o The wall height and length match an existing or similarly constructed wall on the adjoining site.
Muswellbrook Shire Development Control Plan
Section 6
Residential Development

6-3

- Satisfactory arrangements in place for the maintenance of the wall or gutters
(ii) Application for zero building line will only be considered where the relevant lot or lots are part of an integrated subdivision design.
(iii) Garages, carports, sheds and other ancillary structures shall be setback at least 450mm from a side boundary to ensure they do not encroach upon adjoining lots. Council may vary this requirement where a site survey can be provided to demonstrate boundary alignments relative to constructed fencing locations.
(iv) Separation fencing is provided between development land and any adjoining rail corridor.

6.1.4 Building Height and Scale

Refer to the relevant section in Muswellbrook’s LEP to determine the height restrictions on buildings within the Shire area.

Objectives

a) The design of new buildings reflects and reinforces, or is complementary to, the existing character of the locality.
b) The provision of good design which provides continuity of character between the local building forms and new development by using a selection and / or combination of characteristic elements and massing.

Controls

(i) Where a building is part of a uniform group of buildings of similar character locate any additions or alterations to the rear and not visible from the street or any public place.
(ii) Where a building is to be located amongst buildings having a consistent façade repeat the size, location and proportions of window, door openings and other distinctive features such as roof form.
(iii) Dual occupancies, multi dwelling housing and residential flat building developments must be designed and constructed in a form and scale that resembles the detached character of dwelling-houses in the surrounding neighbourhood.
(iv) Finishes which are ‘textured’ rather than bland, through the use of light and shade, diversity in materials and finishes and appropriate decorative treatments.
(v) Traditional relationship of roof mass to wall ratio, roof pitch and design, length of unbroken ridgelines, parapets, eaves and roofwater guttering detailing.
(vi) The amount and length of unbroken roof ridge lines, unpunctuated facades, fencing and repetitive form should be minimized.

6.1.5 Front Fencing and Retaining Walls

Objectives

(a) Front fences contribute to the character pattern of fences.
(b) Front fences are well designed, do not dominate the street and contribute to the garden setting.

Controls

(i) Front fence includes any fence that is forward of the building.
(ii) Do not obscure views of the building and garden, from the street, with high front fences.
(iii) Do not build semi-transparent front fences (with no more than 50% solid construction – eg. open picket fences) higher than 1.5m.
(iv) Do not build solid front fences higher than 1.0m (such as masonry, lapped and capped timber, brushwood).
(v) Terracing and retaining walls are not more than 1.5 metres in height below or 1 metre above existing ground level within the front setback.
(vi) Slopes between retaining walls/terracing shall be landscaped and are not to be greater than 4 horizontal to 1 vertical.

6.1.6 Garages, Carports and Sheds

Objectives

a) To ensure that ancillary buildings do not dominate the streetscape and reflects the existing location of ancillary buildings within the streetscape.

Controls

(i) Garages, carports and sheds visible from the street shall compliment (i.e. not detract from) the colour and roof form (i.e. pitch) of the dwelling on that allotment.
(ii) Garages and sheds are not located forward of the established building line.
(iii) Open carports, less than 36m$^2$ in roof area and no greater than 6m wide, may be built to the side boundary or no closer than 1m to the street frontage provided they meet the objectives of this clause.

6.1.7 Dwelling Entry

Objectives

(a) The entry of any dwelling is readily apparent from the street and conveys a sense of address.
(b) Safe access to dwellings and security for residents.

Controls

(i) Create an address to the street or any public access-point by incorporating the front door and/or windows of habitable rooms in the façade facing the street or public assess-point.
(ii) Provide an entry that is clearly identifiable from the street, has adequate lighting and has direct access to the street frontage – do not conceal or recess dwelling entries.
6.1.8 Accessibility and Adaptability

Objectives

a) To ensure that new multi dwelling housing stock incorporate design features that meet a variety of housing needs.

Controls

(i) Provide a minimum of 10% (or part thereof) of dwellings as adaptable housing designed in accordance with the provisions of AS4299.
(ii) The required adaptable housing units are to be designed with accessible features for people with disabilities, and to incorporate level entries and wider doorways and corridors, slip resistant surfaces, reachable power points, disabled toilet, and lever door handles and taps; such features to be designed generally in accordance with Australian Standard 4299.
(iii) Integrate the adaptable housing components, do not isolate them or use a different standard of materials and finishes - show proposed adaptable units on any development application plans submitted.

6.1.9 Reflective Materials

Objectives

(a) Colours and material used in new buildings reflects and reinforces the existing character of the locality.
(b) Colours and materials used in new buildings do not result in adverse impacts to adjoining or nearby premises.

Controls

(i) Use natural colours, muted and earth tones for major areas of the building, such as walls and roof, and restrict stronger colours to smaller features such as window frames, doors and decorative woodwork.
(ii) Avoid extensive use of highly reflective glass, highly reflective metal cladding (such as Zincalume and white Colorbond) and plastics on the exterior of buildings. Use factory pre-coloured materials with low reflective properties.
(iii) If highly reflective materials are proposed to be used, the applicant must demonstrate to the satisfaction of Council that the proposed material compliments the surrounding locality, is the most appropriate outcome for the site, and that no nearby or adjoining properties will be adversely affected by glare nuisance. The applicant shall address in detail the alternative options considered in the design process, orientation of the buildings/proposed material, the roof pitch, sun angles, the location of properties and public places that may be affected by glare either in the immediate vicinity or within a wider area in likely to be affected, and any measure to be incorporated into the works to mitigate any potential impacts (eg landscaping, screens and the like).
(iv) In the event that a glare nuisance does arise from the use of a material, Council reserves the right to require materials to be treated to address glare nuisance.

6.2 URBAN LANDSCAPE

6.2.1 Usable Open Space

Usable open space can include private and communal open space but does not include public open space. The provision of public open space is also dealt with in the relevant Section 94 Contributions Plan.

To be included in usable open space calculations, open space at ground level must have a minimum dimension of 3m (and above ground level a minimum dimension of 2m).

Roof gardens, terraces, balconies and verandahs can count as usable open space provided they are not enclosed and if it can be demonstrated that the bulk of the building is satisfactory and no undue lack of privacy results:

Objectives

(a) To provide sufficient and accessible open space for the reasonable recreational needs of residents.
(b) To provide private open space meets requirement for privacy of the user and adjoining properties, safety, access, outdoor activities and landscaping.
(c) To locate any open space to take account of outlook natural features of the site and neighbouring buildings or public open space.

Controls

(i) In multi dwelling housing or residential flat buildings, provision of a minimum of 35m$^2$ of principal private open space shall be provided per dwelling which is located at or near ground level and directly accessible form the living area.
(ii) Narrow elongated areas with any dimension less than 4m shall not be included as part of the principal private open space.
(iii) Where the dwelling is located above ground level, a balcony is provided having a minimum area of 8m$^2$ and a minimum dimension of 2m with direct access from the main living area of the dwelling.
(iv) Screening is to be provided where necessary to maintain privacy.
6.2.2 Carparking

Objectives

(a) Adequate on-site carparking provisions for residents.
(b) Car parking is provided on site to a standard that ensures safe and convenient manoeuvring of vehicles

Controls

(i) Provide on-site carparking in accordance with AS2890.1 and Section 16 of this DCP.
(ii) Design access ways and driveways for multi dwelling housing and residential flat buildings to enable vehicles to:
    - Enter the parking space or garage in a single turning movement.
    - Leave the parking space in no more than two turning movements.
    - Avoid queuing on public roads
(iii) Comply with AS 1428 - Design for Access and Mobility for multi dwelling housing and residential flat buildings where adaptable housing units are to be provided.
(iv) Provide manoeuvring space on site for multi dwelling housing and residential flat buildings to allow cars to enter and leave the site in a forward direction.
(v) Provide separate driveway and pedestrian access for multi dwelling housing and residential flat buildings.
(vi) Designate disable and visitor carparking for multi dwelling housing and residential flat buildings as common property in any strata plan.

6.2.3 Landscaped area

Objectives

(a) Residential development incorporates or retains areas of the site as a landscaped setting to promote a desirable character for the neighbourhood
(b) Residential development meets the definition of “landscaped area” in the LEP and provides usable areas of outdoor space, for the enjoyment of residents.
(c) To provide a landscaped buffer between adjoining properties, and
(d) To maximise retention and absorption of surface drainage water on site

Controls

(i) Residential development must not be carried out in a R1 Residential or RU5 Village zone unless a minimum of 35% of the total site area is “landscaped area” as defined in the LEP.
   (landscaped area in the LEP means a part of a residential site used for growing plants, grasses and trees, but does not include any building, structure or hard paved area)
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(ii) Do not break landscaped area into a series of small fragmented areas that are unusable.
(iii) Retain existing mature vegetation and trees and show what measures are to be implemented to protect this vegetation during construction.
(iv) Landscaped area is located to the rear or northern boundary of the site
(v) Use pervious material or stepping stones where pathway is incorporated in side setback.
(vi) For dual occupancies, multi dwelling housing and residential flat buildings, a landscape plan is to be submitted
(vii) The selection of tree species indicated on the landscaping plan must be in a scale with the size of the proposed building/s. For example, buildings of 2 storeys must include trees with an achievable mature height of at least 8 metres.

6.2.4 Landscaping

Objectives

(a) Landscaping and planting satisfies minimum performance standards and is sustainable and appropriate to the site.
(b) Landscaping design contributes positively to the character of the locality

Controls

(i) Include locally occurring native species to extend habitats for fauna and reduce water and fertilizer requirements.
(ii) Minimise disturbance of natural ground levels, native vegetation and topography in the vicinity of identified significant trees.

6.2.5 Dual Occupancy Housing, Multi Dwelling Housing and Secondary Dwellings

Dual Occupancy is the development of two dwellings on a single site, either detached or attached. Dual Occupancy housing occurs throughout the Muswellbrook Shire within residential areas. Dual Occupancy buildings provide for greater residential densities whilst being consistent with the general low-density residential character of an area.

Careful consideration needs to be given to the site layout of dual occupancies and multi dwelling housing to ensure privacy is retained on neighbouring lots and that the building has a quality frontage along the street. The key outcome of successful dual occupancy development and multi dwelling housing is to retain similar characteristics to dwelling houses particularly the buildings appearance and landscaping when viewed for the street as well as ensuring privacy on neighbouring lots.

Secondary dwellings occur where one of the two dwellings is far smaller than the other giving the overall building the appearance of a single dwelling. Allotments with a dwelling and a granny flat are always Torrens title, they cannot be subdivided or strata subdivided.

The impacts of multi dwelling housing also needs to be considered in relation to existing infrastructure capacity, to ensure that the need for additional infrastructure is not required to service increased residential densities in a residential area. Such issues
include sewer and water capacity, road capacity and on street car parking, waste collection, and stormwater disposal.

For the above reasons, residential density controls have been imposed to ensure that residential densities do not exceed the density envisaged at the time of subdivision estate approval, or that infill development reflects densities relative to site areas in established areas of Muswellbrook and Denman.

**Suitable Locations for Dual Occupancy Housing**

Dual occupancy housing is suitable within most residential locations and are more easily achieved on lots with a wide street frontage or on corner sites.

**Occupancy Rates**

For the purposes of establishing residential densities, occupancy rates will be as follows:

- One (1) bedroom dwelling = 1.23 persons
- Two (2) bedroom dwelling = 1.79 persons
- Three (3) bedroom dwelling = 2.52 persons
- Four (4) or more bedroom dwelling = 3.02 persons

**Objectives**

a) To provide an alternative form of housing that is able to be serviced by existing infrastructure capacity.

b) To ensure compatibility with the character of dwelling houses and surrounding development.

c) To ensure compatibility with the existing streetscape.

**Controls**

(i) The residential density of dual occupancy developments and multi dwelling housing on residentially zoned land must be no greater than 60 persons per site hectare.

(ii) Dual occupancy and multi dwelling housing must be located on significantly regular, rectangular or square, shaped lots and not on battle-axe lots.

(iii) Each dwelling is to be designed so that the access way to the front door is clearly identifiable from the public street.

(iv) Each dwelling with a street frontage is to be designed so that the front door faces the street.

(v) Each dwelling must provide a ground level with at least one habitable room, which must have an adjacent external living area located on ground (car parking is not considered as a ground level). A ground level comprising solely car parking is not acceptable.

(vi) Each dwelling must have an external living area.

Example:

The maximum residential density of a site with an area of 750m² would be:
60 persons per site hectare (60 persons /10,000m²) = 1 person / 166.67m²

750m² / 166.67m² = 4.5 persons

Therefore a site with an area of 750m² could accommodate one (1) two bedroom dwelling plus one (1) three bedroom dwelling (ie 1.79 + 2.52 persons = 4.31 persons)

6.3 ENVIRONMENTAL

6.3.1 Topography

Objectives

(a) Natural topography and landform are maintained. The amount of excavation is minimised.

Controls

(i) Finished ground levels are no greater than 1.5 metres below or 1 metre above ground level (existing).
(ii) Locate habitable rooms (not including bathrooms, laundries and storerooms) above the ground level (existing).
(iii) Retaining walls are no greater than 1.5 metres below or 1 metre in height above ground level (existing).

6.3.2 Solar Access

Objectives

a) To provide dwellings with adequate daylight and natural ventilation to habitable rooms and adequate sunlight to private open spaces.
b) To avoid significant overshadowing of habitable rooms and private open spaces on adjoining land.

Controls

(i) Complete a site analysis as referred to in Section 3 of this DCP.
(ii) Sunlight to the principal area of ground level private open space of adjacent properties should not be reduced to less than 4 hours between 9am and 3pm on June 21. Where existing overshadowing by buildings and fences is greater than this, sunlight should not be reduced by more than 20%. Where overshadowing may occur, a shadow diagram is required to demonstrate that this control has been met.
(iii) The following measures may be required to reduce overshadowing:
   a. The building resited or setbacks increased;
   b. Heights reduced;
   c. The roof design amended

6.3.3 Visual Privacy
Objectives

(a) Visual privacy for all residents is maintained

Controls

(i) Locate windows and outdoor spaces to avoid direct or close views into the windows, balconies or private open space of adjoining dwellings as per the table below.

(ii) Provide suitable permanent screening structures or mature planting to minimise overlooking from proposed dwellings to the windows, balconies or private open space of adjacent dwellings, to windows, balconies or private open space of dwellings within the same development.

(iii) For multi dwelling and residential flat buildings, provide adequate separation between habitable rooms, balconies and non-habitable rooms, within the development and to adjoining development as follows:

<table>
<thead>
<tr>
<th>Habitable building separation</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Separation between windows in habitable rooms</td>
<td>Separation between habitable balconies /outdoor space and non-habitable rooms</td>
</tr>
<tr>
<td>12</td>
<td>9</td>
</tr>
</tbody>
</table>

Note: The above separation distances can be reduced where suitable screening structures (in addition to landscaping) is provided to obscure direct views.

6.3.4 Acoustic Privacy

Objectives

a) To ensure that development does not result in adverse amenity impacts arising from noise generation.

Controls

(i) Site layouts ensure parking areas, streets and shared driveways have a line of sight separation of at least 3m from bedroom windows.

(ii) Openings of adjacent dwelling are separated by a distance of at least 3m.

(iii) Shared walls and floors between dwellings are constructed to limit noise transmission.

(iv) Dwellings adjacent to high levels of uncontrollable external noise are designed to minimise the entry of that noise.

(v) Site layout and design separates active recreational areas, parking areas, vehicle access ways, and service equipment areas from bedroom areas of dwellings.

(vi) Mechanical plant or equipment is designed, located or enclosed to minimise noise nuisance.

(vii) Development adjacent to rail corridors identified in clause 31 of the LEP will require an acoustic report to be submitted to Council to address and
indicate measures to mitigate potential impacts from noise and vibration. Relevant publications available from “Railcorp” for consideration are:-
- Rail Related Noise and Vibration; Issue to Consider in Local Environmental Planning
- Interim Guidelines for Councils - consideration of rail noise and vibration in the planning process
- Guidelines for applicants - consideration of rail noise and vibration in the planning process

6.4 SITE OPERATION

6.4.1 Energy Conservation

Objectives

a) To achieve energy efficient housing, using passive solar design, that provides residence with year round comfort and reduce total energy consumption for heating and cooling.
b) To encourage the use of building materials that are energy efficient, non-harmful and environmentally sound.

Controls

(i) Complete a site analysis as referred to in Section 3 of this DCP.
(ii) The requirements of any BASIX certificate issued for the proposed development are complied with.
(iii) For minor alterations and additions to which BASIX does not apply, incorporate the following measures into the building design and construction where applicable:-
- Hot water systems installed in dwellings have an energy star rating of at least 3.5 stars.
- Incorporate insulated walls and ceilings to contribute to the effectiveness of thermal mass
- Thermal insulation complies with Australian Standard AS 2627 Part 1-1993
- Use water saving shower roses or shower flow restrictors, with a water conservation rating of ‘AAA’ or better in all dwellings
- Use water saving dual flush cisterns in all dwellings
- Install pool cover where proposed development includes a swimming pool

6.4.2 Stormwater Management

Objectives

(a) To provide for more efficient usage of water and improve water quality which is sustainable and requires minimal maintenance.
(b) To maintain existing site discharge rates.
(c) To maintain existing or control flow paths in excess of design requirements.
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(d) To cater for flows entering the site, and to ensure that there are no adverse effects from flows leaving the site.
(e) To encourage water re-use within the dwelling and for landscaping purposes, through the installation of rainwater tanks.

Controls

(i) Ultimate discharge for collected stormwater runoff shall be to a street drainage system, to an inter-allotment drainage line, or by approval, to a public area.
(j) The system shall be “gravity” drained.
(k) Pumping of stormwater is not permitted.
(ii) The development site shall provide an overland flow path for the major storm event (1% AEP).
(iv) Compliance with section 25 of this DCP

6.4.3 Stormwater Management

Refer to Section 25 of this DCP.

6.4.4 Security, Site Facilities and Services

Objectives

(a) Site facilities are unobtrusive, integrated into developments, provide for needs of residents and reduce impact of development on the environment.

Controls

(i) Provide open air clothes drying facilities in a sunny location, which is adequately screened from streets and public places and receives no less than 2 hours of direct sun per day.
(ii) For three (3) or more units, a garbage storage area is to be provided on site so as to be readily accessible from within the site and serviceable by the waste collector from the adjoining public land.
(iii) Garbage storage areas are to be provided with a water tap for wash down purposes and drained to connect to the sewer.
(iv) Provide a lockable mail box, for each dwelling, close to each ground floor dwelling entry, or a mail box structure located close to the major pedestrian entry to the site and complying with the requirements of Australia Post.
(v) Adequate numbering system and signage is provided.
(vi) In order to minimise the amount of externally visible antennae equipment, dwellings within a multi unit housing development should be provided with wiring for a common television reception system.
(vii) The design and provision of public utilities, including sewerage, water, electricity, street lighting, telephone and gas services to conform to the cost-effective performance measures of the relevant servicing authority.
(viii) Adequate light is provided to all pedestrian paths, shared areas, parking areas and building entries.
Section 7 – Village Zones

Overview
This Section of Council’s Development Control Plan has been prepared and adopted by Council to provide guidance for people seeking to undertake development within village zones.

7.1 INTRODUCTION

7.1.1 Application
This section applies to all land zoned RU5 – Village.

7.1.2 Purpose
To provide detailed guidance to applicants in relation to preparation of applications for development in the RU5 Village zone.

7.1.3 Aims and Objectives
The aims and objectives of this plan are to:

a) ensure that new development retains and enhances the rural village atmosphere of Denman and Sandy Hollow;
b) preserve the local environment in terms of its visual appearance and natural quality;
c) outline design requirements for new development in Denman and Sandy Hollow relating to style, density and form of construction that is appropriate to the local context;
d) ensure that new buildings are connected to reticulated sewerage or in Sandy Hollow designed and located to allow sufficient area for on-site disposal of waste water;
e) ensure that individual allotments have adequate private open space and landscaped areas.
7.2 ASSESSMENT PROCESS

7.2.1 Local Environmental Plan

The Muswellbrook Local Environmental Plan (LEP) contains provisions that outline the permissible types of land uses that may occur on land. As part of a review of the LEP 1985, Council identified that Denman should be designated as a village zone in the draft LEP, and that the village of Sandy Hollow should remain a village zone to translate from the existing village zone.

The Muswellbrook LEP details permissible types of development within the RU5 – Village zone. Within the LEP are controls relating to subdivision, building heights, floor space ratios, heritage conservation and other provisions that will be relevant to certain development proposals.

Any development proposal for Denman and Sandy Hollow must first satisfy the relevant provisions in the LEP. In particular, any proposal must comply with the zone objectives for the RU5 Village zone. Failure to adequately address those controls may mean that the development cannot be approved by Council.

7.2.2 Development Control Plan

In order to facilitate the provision of an RU5 – Village zone, it is considered appropriate that a DCP which controls locations for certain development is required to ensure that land use conflicts do not arise, while still allowing flexibility in the assessment process to allow for development to meet the needs of the local community.

This section of the DCP therefore represents additional requirements to those provisions within the DCP to guide appropriate development outcomes arising from development proposals under consideration, or that have been lodged with Council for determination.

7.2.3 Character Statements

Objectives

a) To ensure that new development reflects and reinforces the existing, and desired future character of the village zone

Controls

(i) Council must not grant development consent to new development in Denman that would result in an inconsistency or compromise the integrity of the character statement for Denman

(ii) Council must not grant development consent to new development in Sandy Hollow that would result in an inconsistency or compromise the integrity of the character statement for Sandy Hollow
a) Denman character statement

The main street of Denman (comprising Ogilvie Street and adjoining side streets) is a community focal point that encourages community interaction and is characterised by smaller scale specialty shops that serve local needs.

The community of Denman exhibits a strong community spirit and involvement with daily aspects of village life and common interests including sports activities.

The main street of Denman is an important and valued heritage asset comprising traditional shop fronts and rural streetscape characteristics which are important to community identity. Ensuring its longevity will contribute to ongoing tourism and community spirit and interaction.

The annual “Denman Food and Wine Affair” and surrounding horse studs, vineyards and agricultural activities contribute positively to tourism potential.

Subdivision patterns within Denman should reflect the existing grid style pattern, and land use development should reflect the existing landscaped setting of dwellings sited on larger lots in the village zone.

The hospital, aged care facilities, child care facilities, sports facilities, pubs and clubs, parks and boutique shops are highly valued facilities within Denman and should be reinforced by future development.

Future development should comprise elements of rural residential development to contribute to the existing semi rural lifestyle.

Higher density residential development only occurs in appropriate locations closer to the main street area within short walking distance, with appropriate landscaped buffers on site to ensure existing residential amenity is maintained.

The surrounding views mountains and bushland are important vistas from streets within Denman. The Hunter River, floodplains, and Denman Creek are important natural water features.

The Golden Highway is a major transport route to and from Denman which passes through the edge of town. The intersection is considered confusing in relation to priority and any heavy vehicle traffic should not be directed through town.

Key buildings of importance to the community that should not be compromised in any way by future development are the Memorial Hall, Denman Community Centre, pubs and clubs.
b) Sandy Hollow character statement

Sandy Hollow is a rural village with a community that would welcome future private investment and services. The school, community hall, tourist park, pub, service station, RFS shed and progress association are valued community assets that contribute positively to community spirit and cohesiveness and serve as focal points for community interaction.

The old butcher’s shop in Goulburn Drive is considered to be of heritage value to the community.

Surrounding horse studs, wineries, the B&S Ball, Sandy Hollow horse ride, the Coffee and Arts shop, tourist park and bed breakfast establishments form an important part of Sandy Hollow’s tourism network.

The rural setting of Sandy Hollow within surrounding farmland and mountains and valleys contribute to a rural environment with no dust and rural amenity qualities. Mt Dangar, Giant’s Leap, Goulburn River, Baerami Creek are prominent and major natural features visible from Sandy Hollow that contribute positively to the character of Sandy Hollow. Surrounding rural paddocks and mountain ranges are considered by the community to be important vistas from within Sandy Hollow.

Sandy Hollow is comprised of larger lots, which contain single storey buildings which should be reflected in future development that does not result in more density than duplex development being allowed for residential uses. Subdivision patterns reflect the existing grid style pattern to incorporate wide carriageways and kerb and gutter.

Proximity and convenient access to Widden Valley, Baerami, Goulburn River and Wollemi National Parks, Giant’s Creek, Hall’s Creek is valued by the community and should not be compromised.

Golden Highway and Wybong Road are important transport access routes to and from Sandy Hollow. Future provision should be made in development proposals to incorporate parking facilities for passing traffic trade that do not compromise existing on street parking arrangements for small vehicles.
7.3 RESIDENTIAL DEVELOPMENT

7.3.1 General

The design considerations outlined in this section apply to applications received for new residential buildings and the renovation or alteration of existing buildings in the village zone.

Objectives

a) To ensure that new residential development reflects a desired future character for the village zone
b) To ensure that new residential development appropriately responds to its context
c) New residential development does not result in adverse impacts to village amenity

Controls

(i) New residential development complies with the provisions of Section 6 of this DCP

7.3.2 Waste Water Disposal

Objectives

a) To ensure that new development reflects and reinforces the existing, and desired future character of the village zone

Controls

(i) Where connection to a reticulated sewerage system is not reasonably available (eg. within 75m of the development), on-site waste water disposal must be designed and constructed to comply with Australian Standard AS 1547-2000 and Council’s Development Control Plan Section 23 - Onsite Wastewater Management Systems.
(ii) Onsite waste water disposal areas may be incorporated into area calculations for landscaped area.
(iii) Compliance with section 23 of this DCP.
7.4 PUBLIC PARKS AND RESERVES

Objectives

a) To ensure that new development reflects and reinforces the existing, and desired future character of the village zone

Controls

(i) Built structures on public parks and reserves should be sympathetic to the character of the village and reflect the materials and style of construction prevailing in the surrounding area.

(ii) Compliance with section 5 of this DCP.
7.4 NON-RESIDENTIAL DEVELOPMENT

7.4.1 Location

Objectives

a) To ensure that non-residential developments do not result in adverse impacts to adjoining residential amenity
b) To ensure that business or retail uses do not detract from the social amenity provided by the main street of the village
c) To maintain the economic viability of small scale businesses within the business precinct

Controls

(i) New commercial, business or retail development shall be located within the village Business Precinct identified on the map attached as an appendix to this section adjacent to existing commercial land uses.

(ii) Council may vary the above provision where it can be demonstrated to the satisfaction of Council that the proposed residential location will result in a better planning outcome that will meet an unmet need of the community, and three or more of the following criteria is satisfied.

(a) The gross floor area of the proposed use will not exceed 100m².
(b) There are no suitable vacant sites available within the business precinct and reasons and details are provided of investigation of this issue to the satisfaction of Council.
(c) The on site car parking requirements of section 16 of this DCP can be met by the development.
(d) The proposal is considered to be in the public interest and will provide important social and economic benefits for the local community.
(e) The proposed business is intended to replace an existing business located outside the business precinct.

(iii) Depending on the nature and scale of the proposed development, Council may also require the submission of a social and economic impact assessment to demonstrate that the proposed development or activity will not result in adverse impacts to existing business or retail activity within the village.

7.4.2 Design Guidelines

Objectives

a) To ensure that new developments reflect and reinforce the existing character of the business precinct

Controls
(i) Commercial developments must be designed with entries onto the street with active street level uses.
(ii) Building design must reinforce the existing streetscape character with elevations of a consistent scale, proportion and detail to surrounding development.
(iii) In Denman, building materials shall be consistent with the heritage character statement provided in section 15 of this DCP.
(iv) The colours and texture of buildings shall reflect the character of the neighbourhood and adjacent rural environment. Suggested colours are blues, greens and lighter natural tones.
(v) Long, continuous facades and rooflines must be avoided in larger buildings.
(vi) Buildings on corner blocks should be designed with an active frontage to both streets.

7.4.3 Vehicle Parking

Objectives

b) To ensure adequate provision of car parking is provided to service the development

Controls

(i) On site car parking shall be provided in accordance with Section 16 of this DCP

7.4.4 Signage and Use of Footpaths

Objectives

a) To ensure signage and the use of footpaths is controlled to maintain pedestrian amenity
b) To ensure the consistent application of development controls

Controls

(i) Advertising and signage shall only be permitted in accordance with Section 14 - Outdoor Signage or exempt development provisions of Muswellbrook Local Environmental Plan 2008.
(ii) Use of the footpath may be permitted in accordance with Section 19 – Use of Public Footpaths of this DCP.

7.4.5 Waste Water Disposal

Objectives

a) To ensure waste water is appropriately disposed of relative to the availability of sewerage servicing.
Controls

(i) Any development within 75m of a reticulated sewerage system is connected to that system.
(ii) On-site waste water disposal must be designed and constructed to comply with Australian Standard AS 1547-2000 and Section 23 - Onsite Wastewater Management Systems of this DCP.
(iii) Council may consider the use of pump-out systems for commercial properties in Sandy Hollow (other than residential accommodation).

7.4.6 Form, Massing and Scale

Objectives

a) To ensure that new buildings do not dominate the surrounding built environment
b) To ensure that new buildings reinforce the existing characteristic built form of the locality

Controls

(i) New commercial buildings are not significantly larger than surrounding buildings
(ii) New commercial buildings are designed to meet the heritage character statement in section 15 of this DCP.

7.4.7 Access

Objectives

a) To ensure the equitable provision of access for people with disabilities or the aged

Controls

(i) Equitable access for people with disabilities is provided to new buildings in accordance with the provisions of AS1428.1 and the Disability Discrimination Act.
(ii) Where alterations or additions involve more than 50% of the building fabric, compliance with (i) above is required.
(iii) Vehicular access to, and within, the development shall be provided in accordance with Section 16 – Car Parking and Development of this DCP.

7.4.8 Setbacks

Objectives

a) To ensure that new development does not dominate the streetscape and reflects the characteristic pattern of setbacks on adjoining sites
Controls

(i) Front and side setbacks shall be consistent with the established building line and setbacks for the locality or streetscape.

(ii) Where there are no characteristic setbacks, new buildings shall have regard to the future use of the public domain and impacts arising from potential future development to follow the proposed setback.

6.4.9 Landscaping

Objectives

a) To ensure that landscaping elements are included to soften and enhance the appearance of new developments

b) To ensure that new developments contribute positively to the streetscape

Controls

(i) Applications for new business or retail development are to include a landscape plan prepared by a suitably qualified professional showing existing trees and proposed landscaping.

(ii) Landscaping is to be provided in the front setback area, along driveways and to screen car parking areas, where applicable.

(iii) Landscape planting shall predominately incorporate native species, and particularly species endemic to the area.

(iv) Landscaping along the site frontage create an attractive and harmonious streetscape that blends with the adjacent public reserve areas.
SECTION 8 – RURAL & ENVIRONMENTAL ZONE DEVELOPMENT

8.1 INTRODUCTION
This section applies to development in RU1, E3 & W1 zones

8.1.1 Dwelling Houses on existing parcels of land

The Muswellbrook Shire LEP defines housing opportunities in rural areas. Houses are permitted according to lot sizes or according to the subdivision history. Where the original development consent expressly anticipated dwelling entitlements prior to the gazettal of the Muswellbrook Shire LEP under the former Muswellbrook LEP 1985, those dwelling entitlements are retained.

Alternatively, an “existing parcel of land” is comprised of land that does not already contain a dwelling (being any areas of adjoining or adjacent land held in the same ownership on, and continuously from, 11 April 1974, and includes any such area from which land has been excised for public purpose after that date) as at 11 April 1974.

Therefore, an existing parcel of land may be a single parcel of land or the aggregation of adjoining or adjacent land parcels as they were on 11 April 1974. Where land is still in the same configuration that it was on 11 April 1974, then consent can be issued for a house on the land irrespective of the holding size.

To determine if a property comprises an existing parcel of land may involve considerable historic research. Road widening or acquisition of land for a public purpose does not affect an existing parcel of land. An existing holding may have included land separated by a road or defined creek. There have been a number of instances in Muswellbrook where a part of rural land separated by a road has been sold off to adjoining landowners. In such instances, the residue will not comprise an existing parcel of land.

Where land does not comprise an existing parcel of land, minimum lot sizes under the Muswellbrook Shire LEP apply.

Where a dwelling house may not be permissible on a parcel because the land once formed part of a larger holding and has been “excised” from a larger rural holding without development consent, the land may only be used for a purpose permitted under the LEP 2008 other than a dwelling house.

Objective

a) To ensure that claims for dwelling entitlements are based upon relevant subdivision and property history

Controls

(i) Development applications for new dwellings demonstrate that the subject land comprises the whole of an existing holding including historic ownership pattern from title documents.

(ii) Development applications for new dwellings demonstrate development consent for original subdivision under the Muswellbrook LEP 1985 granted dwelling entitlement under that instrument.
8.2 BUILT FORM

8.2.1 Scenic Protection and Building Location

Objectives

a) To ensure that the location of buildings do not detract from the natural or rural setting or scenic qualities of a site
b) To ensure that buildings do not dominate the surrounding natural landscape features

Controls

(i) The roof line of the building must not protrude above natural ridge or tree lines when viewed from public areas and public roads.
(ii) Substantial remnant vegetation is protected from disturbance.
(iii) Outbuildings are located in proximity of and to the rear of the main dwelling house when viewed from the nearest road. Outbuildings should be located at the rear of the main house when viewed from the road and form a “homestead group” of buildings. Shearing sheds and hay sheds are appropriate away from the homestead group.
(iv) The dwelling house is sited on land identified as being suitable for construction and free from contamination, flooding and bushfire risk.
(v) Privacy and views of neighbouring houses are reasonably retained.

8.2.2 Setbacks

Objectives

a) To ensure that development in rural areas is located to minimise visual and acoustic impacts on public places
b) To ensure that development in rural areas is located in consideration of existing and possible future land uses on adjoining land.

Controls

(i) Buildings are setback a minimum of 50m from any public road
(ii) Buildings are not located within 10m of any property boundary.
(iii) A suitable buffer area is established in the vicinity of agricultural operations that may occur on adjoining land.
(iv) Separation fencing is provided between development land and any adjoining rail corridor.
(v) Development adjacent to rail corridors will require an acoustic report to be submitted to Council to address and indicate measures to mitigate potential impacts from noise and vibration. Relevant publications available from “Railcorp” for consideration are:-
   - Rail Related Noise and Vibration; Issue to Consider in Local Environmental Planning
   - Interim Guidelines for Councils - consideration of rail noise and vibration in the planning process
   - Guidelines for applicants - consideration of rail noise and vibration in the planning process
8.2.3 Colours and materials

Objectives

a) To ensure that colours and materials used in new buildings blend in with and do not dominate the surrounding landscape

b) To ensure new buildings do not result in adverse visual impacts to road users or nearby properties

Controls

(i) Use natural colours, muted and earth tones for major areas of the building, such as walls and roof, and restrict stronger colours to smaller features such as window frames, doors and decorative woodwork

(ii) Use factory pre-coloured materials with low reflective properties.

(iii) Avoid extensive use of highly reflective glass, highly reflective metal cladding (such as Zinalume and white Colorbond) and plastics on the exterior of buildings, unless it can be demonstrated that this appropriate to the particular circumstances that exist on the site.

8.2.4 Car parking and Access

Objectives

a) To ensure that adequate car parking and access is provided to service new development

Controls

(i) Generally access roads to serve specific developments provide direct access to a public road under the care and control of Council, comprising all weather access for a two wheel drive vehicle.

(ii) Car parking provided on site complies with any relevant requirements within section 16 of this DCP, and where car parking requirements apply, access roads are designed and constructed in accordance with relevant AS2890.1 & AUS-PEC requirements relative to the projected traffic flows.

(iii) Entry gateways are set back sufficiently from the front boundary to allow vehicles to pull up off the public road carriageway.

(iv) Access directly from a sealed road is to incorporate a sealed section between the road seal and the boundary alignment to minimise gravel being deposited on the road surface.

(v) Rural property accesses shall be designed to comply with Council’s specifications for Rural Property Access.

(vi) Rural property access is to be designed so that stormwater flows do not discharge down the access carrying sediment and debris onto Council’s roads. To accommodate this requirement the road shall be designed to include measures such as mitre drains, pipe culverts, causeways, diversion banks, or other similar water management devices.

8.2.5 Temporary Dwellings

Objectives
a) To ensure that buildings used for temporary dwellings do not detract from the general amenity of the locality
b) To ensure consistency in the application of provisions relating to periods of temporary occupation

Controls

(i) Buildings may be used for the purpose of temporary dwellings for a maximum period of three (3) years from the date upon which any Occupation Certificate is issued for the building
(ii) Upon the expiration of the time period referred to in (i) above, the building shall not be used for residential purposes, and fixtures that render the building capable of separate habitation shall be removed
(iii) Temporary dwellings shall comprise buildings that can be easily adapted to a compatible non-habitable use upon expiration of the period for temporary habitation.

8.3 ENVIRONMENTAL MATTERS

The management of significant remnant vegetation is an issue that requires careful consideration. The Muswellbrook Shire LEP contains provisions relating to proposals that have the potential to impact upon significant remnant vegetation occurring on some sites.

The “degradation of native riparian vegetation” is also listed as a key threatening process under the provisions of the Fisheries Management Act. Riparian areas require careful management to ensure biodiversity values are maintained and the quality of water resources is not eroded over time.

These controls identify matters to be considered in preparing or assessing any proposal that has the potential to impact on these environmentally sensitive areas. It is the not the intention of these controls to restrict ongoing agricultural activities, but to ensure that new developments properly address the likely impacts of that development being allowed to proceed if an approval is required beforehand.

8.3.1 Topography

Objectives

a) To preserve the natural landform of the Shire
b) To ensure that any developments are constructed to be unobtrusive and consistent with relevant landform conditions
c) To ensure that any filling of area or rehabilitation is undertaken to produce a final landform that is consistent with surrounding topography.

Controls

(i) The completion of a site evaluation during the assessment of development applications to ensure consistency with surrounding areas and existing topography
(ii) The erection of structures to utilise materials and colours which are relevant to the surrounding rural landscape and which protect the visual amenity of the area
(iii) The consideration of landform relevant issues (such as existing water drainage relevant to the site), during the assessment of proposed developments.

8.3.2 Vegetation

Objectives

a) To protect and enhance the remnant vegetation distributed across the Muswellbrook Shire
b) To comply with the provisions of Native Vegetation Act 2003 which aims to prevent broad scale clearing across NSW
c) To protect and preserve natural fauna habitat through the protection of native remnant vegetation
e) To minimise the amount of clearing required to develop properties to that only as necessary for development.
f) Reduce the spread of weed species.

Controls

(i) Identification and control of developments which are expected to impact on the areas of remnant vegetation as determined and mapped by The Vegetation of the Central Hunter Valley NSW project represented in Council’s native vegetation mapping layer.
(ii) The clearing of native remnant vegetation or protected regrowth on properties (excluding permitted activities) which are zoned as rural or rural residential must receive appropriate approval from the Catchment Management Authority (CMA) in regards to the Native Vegetation Act 2003.
(iii) The approval of any clearing in regards to native remnant vegetation or protected regrowth within the definitions of the Native Vegetation Act 2003 will only be granted by the CMA if the clearing will improve or maintain environmental outcomes.
(iv) Any clearing of native remnant vegetation or protected regrowth which is deemed to be ‘permitted clearing’ under the definitions of the Native Vegetation Act and which does not require CMA approval, is to be undertaken as per the requirements of the Act and to ensure that clearing is limited only to those areas deemed necessary for the development.
(v) The provisions of Clause 5A of the Environmental Planning and Assessment Act 1979 may require the submission of a flora and fauna assessment report with the development application. See the guidelines for submitting applications in Section 3 of this DCP.

8.3.3 Riparian buffers

Objectives
a) To ensure that riparian buffers are identified and protected from adverse future development impacts
b) To maintain riparian buffer stability, vegetative cover and in stream habitats
c) To encourage rehabilitation and restoration following disturbance through the use of recognised rehabilitation techniques and the planting of native species
e) To support the objectives of the Catchment Action Plan development by the Hunter and Central Rivers Catchment Management Authority
f) Protect and enhance wildlife corridors which are located in the riparian vegetation of watercourses.

Controls

(i) A riparian buffer area is generally defined as the area located within 40m of each bank of a river, stream, creek, tributary or other natural water course.
(ii) Avoid undertaking works within riparian buffer areas where other options are available. Any proposed development within the riparian buffer area is accompanied by a detailed consideration of the environmental impacts associated with the proposal and alternative options considered and reasons why those alternatives are not viable.
(iii) Consideration of habitat connectivity during the assessment of developments which may impact on watercourses and riparian vegetation.
(iv) If works associated with development are required to occur within riparian buffer areas, Council will not grant consent to the development unless it is satisfied that appropriate measures are incorporated to:-
   • Maintain stream bank and riparian stability
   • Manage and prevent erosion and sedimentation through appropriate controls in accordance section 20 of this DCP
   • Maintain or restore native vegetative cover
   • Minimise the disturbance to in stream habitats such as gravel beds, snags, aquatic macrophytes etc.
   • Protect water quality
   • Implement rehabilitation and restoration measures following disturbance
(v) Works proposed within the W1 zone demonstrate compliance with the provisions of “Policy and Guidelines – Aquatic Habitat Management and Fish Conservation 1999”, produced by the Department of Primary Industries where works are proposed in riparian buffer areas.
(vi) The decline of riparian vegetation is listed by the Fisheries Management Act as a key threatening process. The assessment of activities which involve an impact on riparian vegetation must take this into consideration and may be required to receive concurrence or approval from the Department of Primary Industries.

Important Notes

• Any works which occur within proximity to a watercourse may require permits, approvals or licences from other bodies such as the NSW Department of Water & Energy or the Department of Primary Industries. It is the responsibility of the proponent to establish the requirement for additional permits or approvals.
Developments which are proposed on properties which include riparian vegetation should identify a buffer area along the watercourse to the extent of the vegetation and discourage activities within this area.

### 8.3.4 Management of Rivers, Creeks, Streams and Drainage

**Objectives**

- a) To protect and enhance natural water courses and their associated vegetation throughout the Shire
- b) Protection of fauna habitat associated with water courses and riparian vegetation to promote biodiversity
- d) Ensure that development maintains and enhances the integrity of water quality, ecosystem health and biodiversity within or adjacent to key aquatic habitats
- e) Protect and enhance wildlife corridors which are located in the riparian vegetation of watercourses.

**Controls**

(i) Consideration of existing flow regimes of natural water courses which may be impacted by activities or developments
(ii) Large scale or high density developments to be located in areas located alluvials zones.
(iii) Mitigation and/or treatment of water quality impacts from land use activities or development
(iv) Assessment of increased flows to natural water courses and drainage channels during the preparation of development applications and supporting documentation.
(v) Consideration of habitat connectivity during the assessment of developments which may impact on watercourses and riparian vegetation.
(vi) any activities which require additional permits or approvals to be obtained by the applicant or landholder.

### 8.3.5 Services

**Objectives**

- a) To ensure that rural development is provided with adequate services

**Controls**

(i) A suitable area is available for perpetual on-site disposal of wastes in accordance with section 23 of this DCP.
(ii) An adequate water supply is provided.

### 8.3.6 Buffers

**Objectives**
a) Adequate buffers are provided between proposed development and existing
development on adjoining land or where potential land use conflicts may
arise.

b) The agricultural potential or residential amenity of land will not be diminished
as a result of a development proposal.

Controls

Compliance with Section 22 of this DCP.

8.4 FROST CONTROL FANS

“Frost Control Fan” is a machine that typically consists of a tower approximately 10 –
11 metres in height with a 5 – 6 metre long propeller/blade at the top. An engine is
mounted at the base of the tower and is used to drive the blade via driveshafts and
gearing. The head of the fan rotates through 360 degrees on a vertical axis.

The principal function of the frost control fan is to mix warmer air from higher
atmospheric inversion layers with the cold air layer closer to the ground, normally
reducing the frost damage to crops

Objectives

a) To provide an equitable balance between the use of frost control fans and the
amenity of surrounding properties;
b) To address the interface issues regarding the installation and operation of
frost control fans and the concern of adjacent neighbours;
c) To set standards appropriate for the installation and operation of frost control
fans; and
d) To allow for sustainable horticulture.

Controls

(i) When a development Application is submitted to Council for the
installation of a frost control fan, it must be accompanied by the following
information:

a. Scaled site diagram showing the proposed location of the frost
control fan/s and the location of any dwelling within the 1 km of the
frost control fan.

b. Structural engineer’s certificate and drawings for the footings and
structural steelwork. (This information may be provided by the
manufacturer).

c. Noise acoustic report modelling the extent of impact of the
proposed frost control fan upon the surrounding properties. The
model should be based upon manufacturer’s sound level data.
The noise acoustic report should also indicate that the proposed
frost control fans will not exceed the noise criteria as shown in
Table 1.

d. The $L_{Aeq}$ measurements from the manufacturer must have been
taken over a period of 15 minutes and over a range of distances
from 10m to 1000m from the frost control fan. These readings
must be included in the information submitted with the Development Application.

e. Details of crop/s to be protected by the frost control fan/s and the most susceptible times of that crop.

f. Details of the anticipated temperature at which damage occurs to the crop/s proposed to be protected and the anticipated temperatures that the fan/s would come on to protect the crop/s from frost.

g. The number of frosts on average per year, which currently affect the crop/s according to currently available climatic data. E.g. from CSIRO, Department of Agriculture or Bureau of Meteorology.

h. These criteria apply:

<table>
<thead>
<tr>
<th>Location of affected residence</th>
<th>Outdoor Criteria ($L_{Aeq}$)</th>
<th>Indoor Criteria ($L_{Aeq}$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Residence located within 1 km of Frost Control Fans</td>
<td>55 dBA (max)</td>
<td>35 dBA (max)</td>
</tr>
</tbody>
</table>

TABLE 1.

(ii) Once a frost control fan has been approved by Council, it must operate under the following conditions:

a. The frost control fans must have a thermostatic control that is set at all times to the fans are not to operated above 0°C celcius.

b. The driving engine for the frost control fan must be housed in a noise attenuating housing.

c. Whilst the frost control fans are in operation, the noise level measured at a distance of 1m from any bedroom window of a dwelling situated on an affected separate property must not exceed the outdoor or indoor limit.

Notes:

i) Indoor noise levels are to be measured from the inside of a bedroom of a residence (with all windows closed)

ii) When noise measurements are to be carried out, the measurement period must be for at least 15 minutes.

iii) All noise measurements are to be carried out by a qualified noise control officer (as authorised under the POEO Act)
iv) The noise limits contained in table 1 apply to the total noise from all frost fans on the premises under investigation operating simultaneously.

(iii) Should Council have reason to believe the operations are exceeding the limits set in Table 1, the operator is to undertake an acoustic report within seven (7) days notification from Council to determine compliance with the DCP. Council may take further action should the report not be received in the specified timeframe.

- In the event where noise criteria for the operation of the fans are met, but the level of disturbance is not reduced, Council will require the operator to undertake further mitigation measures to reduce the level of disturbance from the Fans.
- After all issues are taken into consideration Council will determine whether further action is required.

Notes:
When noise measurements are to be taken, the following points will apply:
- Noise measuring instruments must be equivalent to Type 2 (or better) as defined in the Australian Standard 1259 “Sound Level Meters”, Parts 1 and 2.
- Apart from the provisions already contained in this DCP, noise measurements must be conducted in accordance with Australian Standard 2659, “Guide to the use of Sound-measuring Equipment”, Parts 1 and 2.

The following page no. is 9-1
SECTION 9 – LOCAL CENTRE DEVELOPMENT

Overview

This Section contains the following sub-sections:-

9.1 - Built Form
9.2 – Urban Landscape

9.1 BUILT FORM

9.1.1 Building Design

Objectives

a) To provide for the integration of new development into local centres.
b) To ensure the design of buildings complements and enhances existing local centres.
c) To maintain the heritage character/value and streetscape of the business centre of Muswellbrook.

Controls

(i) The design of new buildings should reflect and enhance the existing character of local centres. (refer to section 15 of this DCP for further guidance on development in the Bridge Street area)
(ii) Building design should relate to its retail/commercial/office function.
(iii) Building materials should be of high quality and harmonise with surrounding development. The use of reflective materials is discouraged. Materials and colours should not dominate the streetscape.
(iv) Awnings should be designed to integrate with the architecture of the building façade and provide for continuous shelter for pedestrians. Awnings should follow consistent heights above the footpath with a minimum height to the underside of the awning of 3.2 metres
(v) Building facades should relate to the context of buildings in the area to achieve continuity and harmony. The continuity of commercial frontages should not be broken by parking areas, service and delivery areas etc.
(vi) Buildings should provide for 'activated street frontages' by incorporating active uses at street level including cafes and other retail activities.
(vii) Blank building facades to streets or public places are to be avoided.
(viii) The placement of windows should provide visual interest and variation to the building façade and relate to those of adjacent buildings.
(ix) Building designs should allow for passive surveillance of public places and streets.
(x) Building entrances should be well defined and well lit.
(xi) New residential development shall be located above street level.
(xii) Incorporate areas for future signage into the building design.
(xiii) Shop top housing and serviced apartment development complies with relevant provisions within the Residential Flat Design Code published by the Department of Planning.

9.1.2 Building Height

Objectives

a) To ensure the height and scale of buildings is consistent with the character of the streetscape.
b) To maintain solar access to public places and adjoining properties.

Controls

(i) Building heights comply with the building height limits prescribed by Muswellbrook LEP 2009.
(ii) The height of buildings should be consistent with the character of the area, and include roof parapets where that is a characteristic in the surrounding streetscape.
(iii) The height of buildings should not result in unreasonable overshadowing or compromise the privacy of adjoining properties.

9.1.3 Setbacks

Objectives

a) To provide setbacks that complement the streetscape.
b) To ensure the siting of buildings provides for adequate separation between buildings for the amenity of the development and adjoining properties.

Controls

(i) The front of buildings should be aligned to provide a continuous street frontage.
(ii) In some cases, front setbacks should allow for street landscaping and footpath widening where necessary.
(iii) New development should respect the setbacks of other buildings along the streetscape.
(iv) Separation fencing is provided between development land and any rail corridor.
(v) Development adjacent to rail corridors identified in clause 31 of the LEP will require an acoustic report to be submitted to Council to address and indicate measures to mitigate potential impacts from noise and vibration. Relevant publications available from “Railcorp” for consideration are:-
9.1.4 Accessibility

Objectives

a) To ensure that equitable access is provided to new commercial buildings and existing buildings undergoing a change of use or alterations and additions.

b) To ensure that developments comply with the provisions of the Disability Discrimination Act 1992.

Controls

(i) New buildings or buildings undergoing alterations and additions or a change of use are required to provide equitable provision of access to and circulation within the premises for people with disabilities in accordance with the provisions of AS 1428.1.

(ii) Continuous accessible paths of travel shall be provided:

- from parking spaces, public streets and walkways to building entrance(s);
- between buildings, facilities and spaces that are on the same site;
- to connect the building entrance(s) with all spaces and facilities within the building; and
- to minimise travel distance between each accessible element of the building and of facilities within it.

(iii) For the purposes of subsection 9.1.4(ii), access shall be provided to and within all the areas or facilities of the building where there is a reasonable expectation of access by any owner, occupier, employee, or visitor. It does not include any area if access would be inappropriate because of the particular purpose for which the area is used.

(iv) Council may vary these provisions if compliance will cause major difficulties or unjustifiable hardship to a person or organisation. Each claim for unjustifiable hardship is determined on a case by case basis taking into account the following:

- Whether there is a benefit or a detriment to any person concerned;
- How it affects the disability of the person concerned; and
- The financial cost.

And considering the following circumstances:

- technical limits;
- topographical restrictions;
- safety, design and construction issues; and
- does not rely on the ‘public domain’ to solve access issues within the site.
9.2 URBAN LANDSCAPE

9.2.1 Landscaping

Objectives

a) To enhance the character of the town centre.
b) To provide landscaping which enhances the amenity of a development by allowing for adequate open space, sunlight and shade.

Controls

(i) Where appropriate, landscaping should be incorporated into building design to enhance the character of the streetscape and the amenity of buildings and public places.
(ii) Landscaping should reflect the size and height of buildings and should be consistent with the character of the area.
(iii) Landscaping should be used to soften the impact of hard surfaces where necessary.
(iv) Where landscaping is proposed to be incorporated into a new development, a landscape plan detailing hard and soft landscaping works should be submitted with the development application.

9.2.2 Car Parking

Objectives

a) To ensure the safe and efficient movement of pedestrians and vehicles through the town centre.
b) To ensure that developments provide simple, safe and direct vehicular access.
c) To provide sufficient and convenient parking for employees and visitors.

Controls

(i) Car parking and loading facilities is to be provided in accordance with the parking rates prescribed by Section 17 – Car Parking.
(ii) The provision of parking spaces for people with disabilities is to be in accordance with AS 1428.1.
(iii) All vehicles should be able to enter and exit a site in a forward direction.
(iv) Car parking should be screened from residential areas.
(v) Vehicular access to properties fronting the New England Highway should be from laneways or shared driveways.
(vi) Parking areas shall be sealed in accordance with Section 16.4.6 Construction Materials.

9.2.3 Outdoor Eating Areas

Objectives
a) To enhance the character of the town centre.
b) To provide lively and active streetscapes without compromising the safe and efficient movement of pedestrians.

Controls

(i) Any outdoor eating areas should be located directly adjacent to cafes or restaurants.
(ii) A clear space is required to be provided on the footpath to allow free flow of pedestrian traffic.
(iii) Outdoor eating areas are required to comply with section 19 of this DCP.

9.2.4 Signage and Advertising

Objectives

a) To ensure signage is compatible with the scale of surrounding buildings and the locality.
b) To maximise the effectiveness of advertising whilst minimising visual clutter through the proliferation of signs.
c) To ensure signage complements the character and amenity of the locality and the development on which advertisements are displayed.

Controls

(i) Proposed signage to be in accordance with Section 15 – Outdoor Advertising.
(ii) Signage should be compatible with the scale and character of development in the area and the number and size of signs should be limited to avoid clutter and unnecessary repetition.
(iii) Signage should form an integrated part of the building façade, architectural design and scale of the building.
(iv) No signage is permitted on a building wall abutting or facing a residential area.
SECTION 10 – INDUSTRIAL DEVELOPMENT

Overview

Muswellbrook Local Government Area has various industrial zones. These are located at Thomas Mitchell Drive and Common Road, Muswellbrook and the Golden Highway, Denman.

These industrial zones are focused on heavy industry with some light industrial areas being available. The location of the industrial zones have came about due to the proximity of mining development and the ease of access to the services provided by the Industrial sites.

Some of the industrial zones have access to Council’s Water and sewer services, others do not have this available.

This Section contains the following sub-sections:-

10.1 – Built Form
10.2 – Environmental
10.3 – Services

10.1 BUILT FORM

10.1.1 Setbacks

Objectives

a) To reduce the bulk and visual impact of industrial buildings from public roads.
b) To maintain adequate site distance for road users.

Controls

(i) Buildings and structures should be setback at least 10.0m from the front (or principal) boundary alignment.

(ii) Front setbacks can be varied based on assessment of the following criteria:
- Minimum 6 metres landscaping across the frontage of the site.
- Provision of car parking facilities (refer to Section 17).
- Building height, bulk and layout. Setbacks may be increased for buildings of substantial height, bulk etc.
- The nature and needs of the industrial activity.
- The existing character of the streetscape.

10.1.2 Building Design

Objectives

a) To provide industrial buildings which are both functional and attractive in the context of their environment.
b) To reduce the visual impact of larger industrial buildings.

Controls
(i) The façade of the building to the primary road frontage shall be constructed in a contrasting material to a height of 2.5 metres and returned along the side for a distance of 2 metres. (A change in the colour of the material is not adequate).

(ii) Council will consider deletion of the 2.5 metre brick or masonry wall along the frontage of the building as required above, if the applicant provides satisfactory relief and contrast materials within the front façade to soften its visual appearance and form and reduce its bulk.

(iii) External walls of buildings shall be profiled factory colour treated cladding or masonry material, or a combination of both with low reflective properties.

(iv) Additional treatment will be required where building is in prominent position or close to street frontage or front main roads or in residential or commercial neighbourhoods.

(v) Signage complies with Section 14 of this DCP.

10.2 ENVIRONMENT

10.2.1 Drainage and Stormwater

Objectives

a) To ensure adequate drainage facilities are provided within the site to collect and carry stormwater to external drainage systems.

b) To prevent the hazard of flooding and diversion or concentration of water onto adjoining properties or public areas.

c) To ensure that the public drainage systems can adequately accept additional runoff generated by developments.

Controls

(i) Storm water runoff from roofs and paved areas is to be collected on site and disposed of to the street drainage system, drainage easement, natural drainage course or infiltration trench or other means as determined by Council or in accordance with an engineering design.

(ii) A concept site drainage plan and calculations for storm water drainage, wash down areas and any other trade waste prepared by an appropriately qualified and practising civil engineer shall be submitted with the Development Application for approval.

(iii) Compliance with section 25 of this DCP.

10.2.2 Landscaping

Objectives

a) To improve the visual quality and general amenity of industrial developments through implementing effective low maintenance landscaping of industrial sites relative to the scale of buildings on the site.

Controls

(i) Minimum depth of 6.0m for landscaping within the front setback area (excluding driveway) in unsewered areas.
(ii) Minimum depth of 3.0m for landscaping within the front setback area (excluding driveway) in sewered areas.

(iii) Landscaped area is to extend for the full frontage of the site (excluding driveway).

(iv) The side and rear setback if visible from a public area.

(v) Large vehicle parking areas may be required to be landscaped to provide shade and to soften the visual impact of parking facilities.

(vi) Security fencing should be located behind the front landscaped area.

(vii) Garbage collection and storage areas are located at the rear of the building or in locations that are not visible from public places.

Council will require that the landscaping of the sites developed in accordance with this Plan be carried out and maintained for the life of the development.

The applicant may be required to lodge a cash bond or bank guarantee to Council to ensure the provision of effective landscaping and maintenance thereof. The amount will be determined at the development application stage.

10.2.3 Visual amenity with regard to car parking and operational areas

Objectives

a) To protect the visual amenity of the area
b) To ensure large sites contain measures that enhance visual appearance

Controls

(i) Car parking areas are located behind the landscaped front setback.

(ii) Large areas of paved parking areas in excess of operational and parking requirements are undesirable, and are discouraged.

(iii) Exposed parking under buildings is not provided.

(iv) On-site parking (not under buildings) is desirable provided that the area is visually screened from the street and landscaped properly.

(v) Below grade parking is desirable and should be encouraged, because by comparison it is easy to landscape and by its nature will be screened from adjoining sites, provided that excavation is not excessive or unnecessary to undertake the development.

(vi) Car parking within the front building line (setback) from the street boundary and side boundary setbacks adjacent to fences will be discouraged as these areas should be utilised for landscaping.

(vii) All car-parking spaces are to be paved, adequately drained, marked and designated upon the site in accordance with the provisions of AS2890.1.

10.2.4 Vehicular Movements and Access

Objectives

a) To prevent delay or obstruction to traffic by vehicles waiting to gain access to the site.

b) To accommodate the movement of employee and visitor traffic to and from the site in a forward direction.

Controls
(i) Car parking on site is provided in accordance with Section 16 of this DCP.
(ii) Access drives are to be designed to have a width in accordance with the provisions of AS2890.1 and RTA Guidelines which reflects the nature and needs of the particular land use.
(iii) Access drives shall not be located within 10.0m of an intersection.
(iv) Loading and unloading facilities appropriate to the particular development are to be provided on site such that service vehicles are located wholly within the site and do not impede planned pedestrian and traffic movements.
(v) Demonstrate that all traffic movements to and from the site can occur in a forward direction.
(vi) If a development falls under the categories specified in State Environmental Planning Policy (Infrastructure), it will be referred to the Regional Development Committee for consideration and comment. A copy of the State Environmental Planning Policy is available from Council.

10.3 SERVICES

10.3.1 Water and sewer

Objectives

a) To ensure adequate provisions are made to service the proposed development.
b) To ensure available capacity exists in Council's Water and Sewerage Augmentation Schemes to accept the proposed development.

Controls

(i) In cases where trade wastes are to be discharged into the sewerage system, detailed plans and specifications of the work to be done, details of the equipment to be used, the nature, quantity and rates of discharge of the proposed effluent shall accompany the application (refer to Sections 23 & 24 of this DCP for further information).
(ii) In cases where sewerage is not available, full details of trade wastes and the treatment thereof are required to be provided within the development application.
(iii) A separate on-site waste water application is required to be submitted to and approved by Council in areas not serviced by Council sewerage schemes (refer to Section 23 for further information).
(iv) Agreement with Council’s Water and Waste Department is required for water connection. Details of the size and location of the service required, together with details of any fire service proposed to be installed.

10.3.2 Services

All industrial developments shall be serviced by an adequate supply of electricity in accordance with the requirements of Energy Australia.

The following page no. is 11-1
Section 11 – Extractive Industry

INTRODUCTION

Gravel, rock and sand materials are often produced through operations such as extractive industries which mine natural deposits and which process the raw material to produce a saleable resource, which are predominantly used in construction and landscaping activities in a variety of applications. The resources obtained through extractive industries are essential to any developing economy such as the local Muswellbrook community and also to those further afield such as Newcastle and Sydney.

This Section of Council’s Development Control Plan (DCP) represents Council’s commitment to Ecological Sustainable Development (ESD) by establishing a framework in which the industry, community, state government and Council all work together to achieve sustainable outcomes.

This Development Control Plan applies to all land within the Muswellbrook Shire Council local government area as per the Muswellbrook Local Environmental Plan.

This Section contains the following subsections:
11.1 – Pre-Lodgement
11.2 – Development Applications
11.3 – Notification and Submissions
11.4 – Assessment of Applications
11.5 – Community Participation
11.6 – Transport
11.7 – Water Resources
11.8 – Visual Amenity and Landscaping
11.9 – Flora and Fauna
11.10 – Heritage and Archaeology
11.11 – Erosion and Sediment Control
11.12 – Acoustic Management
11.13 – Blasting
11.14 – Air Quality and Dust Management
11.15 – Waste
11.16 – Setbacks
11.17 – Extraction Program
11.18 – Rehabilitation
11.19 – Social and Economic Assessment
11.20 – Ecologically Sustainable Development
11.21 – Post – Extraction Land Use
11.22 - Environmental Management Plan
11.23 – Bank Guarantee
11.24 – Section 94 Contributions
11.25 – Council Advisory Committees
11.26 – Council Audits
Figures 1 and 2 indicate the location of existing Extractive Industries within the Muswellbrook Shire (as at date of adoption).

Figure 3 provides a representation of the Development Application process for Extractive Industries.

OBJECTIVES & CONTROLS

Objectives:
The intention of Section 11 of Muswellbrook Council’s DCP is to establish objectives and controls for the development and ongoing management of extractive industries within the Shire of Muswellbrook.

The principal objectives of this Section are to:

• Consider the social, economic and environmental issues during the assessment and management of extractive industries;
• Encourage community participation in all phases of extractive industry development and operation;
• Provide sound technical constraints to facilitate the development and management of extractive resources;
• Recognise and implement the requirements of the Environmental Planning & Assessment Act 1979 and other relevant legislation.

Controls:

(i) Current development approval from Council (or other appropriate authority) including all aspects identified in this Section of the DCP
(ii) Completion and submission of an Environmental Impact Statement (EIS) or Statement of Environmental Effects (SEE) in accordance with the Environmental Planning and Assessment Act 1979 and this Section of the DCP
(iii) Evidence of consultation with relevant community groups and local residents
(iv) Identification and inclusion of technical requirements as listed in this Section of the DCP including setbacks
(v) Current licences, permits or approvals from all other agencies as required by the activities of the development
(vi) Completion of a Environmental Management Plan including all elements as required by this Section of the DCP
Figure 2
EXTRACTIVE INDUSTRY
DEVELOPMENT APPLICATION
PROCESS

Suggested Consultation with:
- State Government Agencies
- Community Groups and Adjoining Residents
- Council’s Planning Department

PRE-LODGE MEETING with

Opportunity for further comment and review by the Community and Public

Report prepared and submitted to Council

COUNCIL DECISION

On-going Monitoring & Management

Figure 3

Version date – April 2009
THE DEVELOPMENT APPLICATION PROCESS

The development application process may vary depending upon the nature and location of a particular extractive industry proposal. Council will assess each application based on its merits, having regard to current environmental laws and best practice standards. The development application process is summarised in Figure 3.

Muswellbrook Shire Council is the consent authority in respect to the development of extractive resources with the exception of State Significant Development (see 11.2). Also note that additional permits or approvals are required from relevant State Departments such as the Department of Mineral Resources and/ or the Department of Water and Energy.

To consider an application for the development of an extractive industry, Council requires the applicant to undertake an array of tasks and studies and provide relevant supporting documentation. The assessment of an application for an Extractive industry development will consider those matters as required by the State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.

11.1 PRE-LODGERMENT

Initial discussions with Council’s Planning Department will assist with advice regarding whether your proposal is permitted under Muswellbrook Local Environmental Plan, if Council consent is required and the type of application to be submitted including supporting documentation.

An informal pre-lodgement meeting with Council may also assist in the application lodgement and assessment. This meeting may include Council Planning and Environmental Officers, the applicant and their representative consultants.

11.2 DEVELOPMENT APPLICATIONS

The following information is required to be completed by suitably qualified persons and submitted to Council for consideration of the development application (as per the Environmental Planning and Assessment Act 1979 and Regulation 2000 – Schedule 1):

- Completed development application form signed by the owner of the property
- Payment of appropriate fees
- Site analysis and appropriateness
- Description of the proposed development
- Planning context and associated permits or approvals required from other relevant authorities
- Environmental Assessment- Statement of Environmental Effects (SEE) or Environmental Impact Statement (EIS – dependent on the definition of the industry which addresses the provisions of this section of the DCP.
- Review of alternatives
- Details of suitably qualified persons who conducted assessments and provided recommendations
Environmental Assessment:
An environmental assessment (completed as per the Environmental Planning and Assessment Act 1979 and Regulation 2000- Schedule 2) must be completed by a suitably qualified person and as a minimum include the following topics (as detailed further by this Section of the DCP):

- Transport
- Water resources
- Visual amenity and landscaping
- Flora and fauna
- Heritage and archaeology
- Erosion and sediment control
- Acoustic management
- Blasting
- Air quality and dust management
- Waste
- Setbacks
- Extraction program
- Rehabilitation
- Social and economic assessment
- Ecologically sustainable development (ESD)
- Post extraction land use

A Statement of Environmental Effects (SEE) must be submitted to Council with all proposed developments or activities associated with an extractive industry, provided that the operation is not deemed to be Designated Development. Discussions with Council’s Planning Department will assist in determining the most appropriate form of environmental assessment.

Extractive Industry developments requiring consent are divided into the following categories:

- **Development Requiring Council Consent**
  All commercial extractive industry proposals require the lodgement of a development application and relevant supporting documentation.

- **Advertised Development**
  A small group of activities are defined in the Muswellbrook Local Environmental Plan as Advertised Development. Additional advertising of these applications is required for these applications.

- **Designated Development**
  Designated developments are those developments which exhibit certain criterion listed by the Environmental Planning and Assessment Regulation 2000 – Schedule 3. Designated Developments must be supported by an Environmental Impact Statement completed in accordance with the Environmental Planning and Assessment Act 1979 and Regulation 2000.

- **Integrated Development**
  Integrated development is development that, in order for the development to be carried out, requires development consent and approval under one or more of the following (as per Section 91 of the Environmental Planning and Assessment Act 1979):
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- Roads Act 1993
- Fisheries Management Act 1994
- Heritage Act 1977
- National Parks & Wildlife Act 1974
- Protection of the Environment Operations Act 1997
- Mine Subsidence Compensation Act 1961
- Mining Act 1992
- Petroleum (Onshore) Act 1991
- Rural Fires Act 1997
- Water Management Act 2000

State Significant Development

An extractive industry may also be defined as a State Significant Development dependent on the size and location of the proposal.

If a proposal is defined as State Significant Development the application is required to be lodged, assessed and determined by the NSW Department of Planning.

11.3 NOTIFICATION AND SUBMISSIONS

The process of notification and submissions is outlined in Section 3 of Council’s DCP.

Determining the extent of Notification

Council may notify additional landowners if it is considered that the application has the potential for a greater impact. In determining whether to extend or limit the extent of notification Council will consider aspects of the proposal such as siting, design, privacy, access, noise, public interest, visual amenity, topography, odour, drainage and traffic generation.

The notification and advertising process invites interested parties to view the proposed development plans and provide relevant comment on any proposal.

11.4 ASSESSMENT OF APPLICATIONS

During the assessment of development applications, Council will take into consideration:

- Section 79C of the Environmental Planning and Assessment Act 1979;
- how the development satisfies the aims and objectives of the Muswellbrook LEP;
- objectives and controls of the Muswellbrook Shire DCP;
- submissions received as a result of the notification/advertising process and
- any other legislation applying to the land or to the type of development proposed.

Developments that fail to comply with the statutory provisions of the Environmental Planning & Assessment Act 1979, the Muswellbrook Local Environmental Plan, or the objectives stated within the Muswellbrook Shire DCP are unlikely to be granted development consent.

Required supporting documentation (including an environmental assessment) for an extractive industry application is detailed by this Section of the DCP. The complexity of this supporting information is dependent upon the nature and location of the proposal. The assessment of an application for an extractive industry development will consider...
those matters as required by the *State Environmental Planning Policy (Mining, Petroleum Production and Extractive Industries) 2007.*

An Environmental Assessment must be undertaken by a suitably qualified person on behalf of the applicant. The required information of the environmental assessment is dependant upon the specifics of the proposed activity.

**DEVELOPMENT CONTROL ELEMENTS**

**11.5 COMMUNITY PARTICIPATION**

Community participation is invited by Council during the assessment of development applications concerning Extractive Industries.

To facilitate this participation applicants are encouraged to interact with neighbouring or adjacent residents and the local community during the development application process and also during the ongoing operation of the industry.

If deemed to be appropriate and/or necessary by Council, a proponent may be required to support a Community Review Committee. A Community Review Committee would be established and operated in accordance with Council’s ‘*Guidelines for Community Consultative Committees for Mining Operations, Extractive Industries and Power Generation*’.

**11.6 TRANSPORT**

Details regarding the extraction and transportation of material to and from the proposed site must be included in the environmental assessment lodged with a development application for an extractive industry.

This information must include the following:

- a report in relation to a traffic survey and study undertaken by a suitably qualified person regarding any potential impacts of the proposed development;
- proposed methods of haulage of material within the site;
- proposed haulage routes of material from the site to markets within and outside the Shire, including a map;
- specifications of the internal haulage road and access intersection to be established and/or maintained, including a site plan drawn to scale;
- method of extraction and stockpiling of material;
- maximum capacity of haulage vehicles;
- frequency of heavy vehicle movements to and from the site;
- Proposed safety controls to be implemented;
- Proposed method and location of a weighbridge or similarly suitable weighing device.

The design and development of access and haulage roads must be consistent with the relevant requirements of the following standards:

- Austroad - Guide to Traffic Engineering Practice;
- RTA - Road Design Guide;
- RTA - Guide to Traffic Generating Developments;
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- Or other designs agreed to by the Roads & Traffic Authority (RTA).

Internal access and haulage routes associated with Extractive Industries should be set back no less than:
- **10m** from adjoining property boundaries;
- **50m** from environmentally sensitive areas including water courses and habitats of threatened species;
- **100m** from residences not associated with extraction.

The location of any internal haulage or access routes may be flexible and may be subject to change depending upon alternative routes, environmental and physical constraints and the nature & value of the underlying resource.

### 11.7 WATER RESOURCES

The management of water resources (including ground and surface) within and around the site must be detailed by a comprehensive Water Strategy which must be submitted to Council at the time of development application.

This Strategy may be incorporated into the environmental assessment and must include (but is not limited to) the following:
- the drainage patterns of water before and those expected after the development of the proposal;
- water quality parameters of the groundwater and surface water located on or adjacent to the site prior to the development of the site;
- any proposed capture devices such as dams, tanks etc including the associated capacity and use;
- calculations of the surface water catchment associated with the site and the proposed management of this flow;
- any proposals to extract or discharge surface or ground water;
- Controls to be implemented to ensure the maximisation of water reuse onsite, maintenance of water quality and the ongoing provision of water resources to users which are located down stream from the proposed extractive industry site.
- Risks, safeguards and contingency plans for extreme climatic conditions or operational hazards including breach or contamination

Prior to the commencement of operations a Water Management Plan will be required to be completed and submitted to Council for approval which must incorporate the details and undertakings of the Water Strategy.

### 11.8 VISUAL AMENITY & LANDSCAPING

Extraction industry operations must, where appropriate, provide setbacks (as detailed by 11.16) capable of minimising the visual impact of extraction and processing sites, particularly when viewed from surrounding private and public places. These setbacks must be established and maintained by the proponent.

In some areas the setbacks must be adequately vegetated to the satisfaction of Council in order to maintain or enhance the visual amenity of the surrounding area, in particular...
to nearby properties and road users. This landscaping should utilise native plant species that must be established and maintained by the proponent.

The environmental assessment submitted to Council as supporting documentation for a development application must include a proposed Landscaping Plan which must include the following:

- Site plan for the entire site drawn to scale indicating set backs, visual screens and landscaping areas;
- Location of proposed vegetated screens to address all identified sight lines;
- Proposed species list;
- Proposed planting density;
- Proposed method of maintenance;
- Time line as to the planting of screens and their expected period of establishment.

A Rehabilitation Plan must also be developed prior to the commencement of operations which must be submitted to Council for approval as part of the Environmental Management Plan.

Following the completion of extraction operations the site must be fully rehabilitated to an approved final landform and as per the approved Rehabilitation Plan. The final landform must be consistent with the biodiversity of the surrounding landscape having regard to the proposed post- extraction land use.

11.9 FLORA AND FAUNA

A flora and fauna study and report completed by a suitably qualified person must be included in the completion of the environmental assessment for an extractive industry. This flora and fauna study and subsequent report must detail information regarding the matters listed in Council’s Guidelines for Flora and Fauna Assessment and include an assessment of significance prepared in accordance with Section 5A of the Environmental Planning & Assessment Act 1979. Any identification of a significant impact will also warrant the completion of a Species Impact Statement (SIS).

An extractive industry operation will be required to also provide and maintain suitable buffer distances and set backs around the site as per section 11.16 above.

Proponents should refer to the requirements of the Environmental Planning & Assessment Act 1979, Native Vegetation Act 2003, Threatened Species Conservation Act 1995 and Environmental Protection and Biodiversity Conservation Act 1999.

11.10 HERITAGE & ARCHAEOLOGY

The environmental assessment completed for an extractive industry must include an Aboriginal and European heritage study and report. This study and report must be completed in compliance with Section 15 of the Muswellbrook Shire Council DCP.

This study and report must encompass the entire site of a proposed extractive industry and not be limited to the proposed area of extraction.
If during the process of archaeological and heritage assessment sites or items are identified for ongoing management, a Plan of Management must be completed by the proponent and approved by Council prior to the commencement of operations. This plan must detail the location, state and significance of an artefact or site and provide a commitment to the ongoing management of the item.

If the site or artefact is proposed to be removed or destroyed the appropriate recommendations and/or permits must be obtained from the relevant authorities (such as the Department of Environment and Climate Change) and organisations such as the Wanaruah Land Council or the National Parks and Wildlife Service.

Reference should also be made to the National Parks & Wildlife Service’s Aboriginal Heritage Information Management System (AHIMS).

11.11 EROSION AND SEDIMENT CONTROL
The conservation of soil resources must be adequately managed by an Extractive Industry operator, in particular those soil resources which are not the extraction material. The proponent is also responsible for the maintenance of soil resources which may not be limited to the boundary of the operation, such as adjacent banks of a water course that may be eroded through the run off or discharge from an extractive industry operation.

The management of soil erosion and sedimentation matters must be undertaken in a manner which is in compliance with Council’s DCP Section 20 and other recognised standards such as the Soils and Construction – Managing Urban Stormwater (Bluebook) produced by Landcom 2004.

The basic elements of the conservation of soil resources is to minimise the extent of cleared areas, implement controls on those areas which are cleared or disturbed and rehabilitate all areas as soon as possible.

Prior to the commencement of operations at an extractive industry site a Sediment and Erosion Control Management Plan must be submitted to and approved by Council. This Management Plan must include the proposed timeline of clearing on the site, the controls to be implemented, diversion of water flows and the proposed rehabilitation of the areas disturbed. A program of ongoing maintenance and onsite supervisor details must also be provided.

Haulage roads and site access points must also be managed so as to minimise the opportunity for erosion and dust to occur. Site accesses must be stabilised in accordance with Council’s DCP Section 20 and other recognised standards. Haulage roads must be adequately maintained and sealed and/or wetted down to ensure that dust and soil does not migrate from the site.

11.12 ACOUSTIC MANAGEMENT
The acoustic environment of an area must be maintained in regards to the introduction of an extractive industry. An impact assessment of the identified noise sources and modelled noise emissions prepared by a suitably qualified person must be included in
the environmental assessment submitted with the development application.

This assessment must also indicate the proposed measures which may be introduced to address the acoustic amenity of the area. These measures may include (which may also be imposed by Council) but are not limited to the following:

- effective acoustic buffers to residences and public places not associated with the operation
- effective noise control measures where noise emissions exceed maximum average background noise level
- appropriate noise barriers to address equipment noise emissions
- use of noise attenuated equipment
- limitation of the hours of operation between 8.00 am and 6.00 pm Monday to Friday with no operations to occur on weekends of public holidays (this may be flexible depending on suitable site details)

Noise emissions from extractive operations should achieve the minimum acoustic criteria & standards set down by the Department of Environment and Climate Change (Environmental Protection Authority) and the Industrial Noise Policy. As a basis proponents should ensure that the maximum average noise emission level of extraction is no more than 5 dB(A) above the maximum average background noise levels.

The proposed controls to be implemented by an extractive industry operation must be detailed in the environmental assessment submitted to Council at the time of development application submission. Those controls approved by Council must then be further detailed in the Management Plan prepared for the site prior to the commencement of operations.

11.13 BLASTING

If blasting activities are proposed as part of the activities associated with the development a blasting assessment and report must be produced by an appropriately qualified person. This report must be included as part of the environmental assessment submitted to Council in support of the development application.

If approval is granted by Council a comprehensive Blasting Plan must be developed and included for approval as part of the Environmental Management Plan prepared prior to the commencement of operations.

The Blasting Plan must include, but is not limited to the following:

- reason for blasting
- number and size of proposed blasts
- frequency of proposed blasts
- license, experience and contact details of the blasting contractor
- potential impacts of blasting
- potential receptors of blasting impacts
- safety controls to be implemented
- other permits or approvals required
- notification process of blast events
11.14 AIR QUALITY AND DUST MANAGEMENT
Air quality associated with an extractive industry must be managed by the proponent. During the preparation of an environmental assessment for a proposed operation, the sources and potential impacts of emissions to the atmosphere must be identified and control measures proposed. This section of the environmental assessment must be prepared as per the standard criteria of Department of Environment and Climate Change (Environmental Protection Authority).

Additionally once these controls have been approved by Council through the development application process, the Management Plan prepared for the operation prior to the commencement of extractive activities must detail the management of air quality in particular dust emissions.

To address air quality proponents must implement effective measures capable of controlling air pollution caused by dust, particularly during dry and windy weather conditions and machinery emissions. These controls must also be extended to the transportation of material from the site, requiring the coverage of all loads leaving the operation.

Potential sources of air emissions may include but are not limited to:
- blasting;
- removal of overburden;
- site clearing;
- extraction and haulage;
- stockpiles;
- mobile earthmoving equipment;
- loading and transport vehicles;
- crushing and screening operations

11.15 WASTE
Waste generated by the development must be managed in an environmental responsible manner. The potential waste streams and management of the streams must be identified and reported as part of the environmental assessment prepared for the development application submission.

If approval is granted by Council for the development, a Waste Management Plan must be completed, submitted and approved by Council as part of the Environmental Management Plan prepared prior to the commencement of extractive operations. This Waste Management Plan must be prepared in accordance with Council’s Development Control Plan Section 24.
11.16 SETBACKS
Setbacks associated with extractive industry operations are required to be established and maintained by the proponent, which are designed to accommodate the following:
- Provision of habitat and corridors for the movement of wildlife throughout the Shire;
- Maintenance or enhancement of the visual and acoustic amenity within the local area;
- setbacks to roads and adjacent property boundaries capable of maintaining a landscape buffer to enhance the visual environment of road users and residents;
- provision of setbacks to electricity transmission lines capable of maintaining an effective buffer for safety and access for maintenance purposes.

Setback Requirements:
(a) Extraction operations should be setback no less than the buffers provided for in section 22 of this DCP or the following, whichever is the greater:
- 10m from adjoining property boundaries;
- 30m from a public road;
- 40m from any boundary to a National Park, State Forest or Crown Land;
- 40m from any site or relic of heritage, archaeological, geological, cultural significance;
- 40m from the top bank of a watercourse or otherwise to the requirements of the Department of Water & Energy;
- 100m from a residence not associated with extraction.

The above setbacks may vary depending upon the nature and location of extractive industries.

11.17 EXTRACTION PROGRAM
The program of extraction must be detailed in the environmental assessment submitted to Council as support of a Development Application. This program must be prepared (including drawings) in an orderly sequence which provides for the progressive rehabilitation of extracted areas and the minimisation of disturbed areas.

Following approval by Council the approved extraction program must then be detailed as part of the ongoing Management Plan for the operation. This extraction program must include the following:
- extraction timeline indicating the progression of extraction activities throughout the approved extraction area;
- scaled diagrams and cross sections indicating the visual representation of the area for regular intervals of the consent period (e.g. 1 year, 5 years, 10 years etc);
- available resource estimation and remaining extraction period;
- timing and area available for progressive rehabilitation;
- management of water as extraction activities progress;
- location and quantity of resource and overburden stockpiles.

11.18 REHABILITATION
The rehabilitation of extraction areas must be undertaken progressively throughout the life of an operation. Rehabilitation activities must be commenced as soon as area
becomes available for stabilisation and revegetation.

During the preparation of a site prior to extraction, the topsoil must be stripped and stockpiled for use during rehabilitation works. Permanent ground cover should be established on areas (including stockpiles) which are proposed to be disturbed for more than 30 days.

This rehabilitation must be integrated with the surrounding area incorporating shape, form, contour, land use, drainage characteristics, topography, landscape quality and biodiversity. All materials used for the backfilling of an extraction void must only include earth and rock sourced as a method of extraction. No waste materials may be used.

A strategy of rehabilitation must be included in the environmental assessment submitted to Council as support of a development application. This plan must include the timing of progressive rehabilitation, vegetation species to be used (endemic native species should be used where appropriate), methods, maintenance, weed control, final land form, and drainage. Diagrams must also be included detailing the progressive works proposed.

The type, composition, application rates and expected growth of proposed vegetation species or seed mixes proposed for use must be consistent with the requirements of the NSW Department of Primary Industry and Department of Environment and Climate Change.

Once the proposed rehabilitation strategy has been approved by Council and relevant government authorities it must be included in the Management Plan prepared for the operation prior to the commencement of operations.

11.19 SOCIAL AND ECONOMIC ASSESSMENT

An environmental assessment prepared for an extractive industry must incorporate a social and economic assessment. This assessment may include but is not limited to the following:

- consultation with neighbouring residents, landholders and community groups
- potential impacts on the community such as emissions and haulage route impacts
- employment sources
- resource markets
- benefits to the local community

11.20 ECOLOGICALLY SUSTAINABLE DEVELOPMENT (ESD)

Appropriate principles and objectives of the National Strategy for Ecologically Sustainable Development, 1992 prepared by the Commonwealth Government (particularly the objectives relating to mining, environmental impact assessment, biodiversity, environmental protection and waste minimisation) should be identified and implemented by the proponent.

In this regard applicants should justify the carrying out of an extractive industry under the principles of ESD. This assessment must be included in the environmental assessment submitted as supporting documentation of a development application.
11.21 POST – EXTRACTION LAND USE
The final landform proposed to remain following the completion of extraction activities must be consistent with the surrounding landform and proposed land use. The site must be suitably rehabilitated (see section 11.19) and designed to be usable for other permissable land uses.

The potential uses of the site must be identified and detailed by the Environmental Assessment and Management Plan prepared for the operation. Proponents should ensure that post extractive land uses do not sterilise or conflict with the extraction operations on adjoining lands.

ONGOING EXTRACTIVE INDUSTRY OPERATION MANAGEMENT

11.22 ENVIRONMENTAL MANAGEMENT PLAN
Prior to the commencement of extractive operations an Environmental management Plan must be prepared and submitted to Council (and other appropriate government authorities) for approval. An Environmental management Plan must include (but is not limited to) the following Plans:

- Water Management Plan
- Landscaping Plan
- Rehabilitation Plan
- Erosion and Sediment Control Plan
- Noise and Blasting Management Plan
- Extraction Plan
- Air Quality and Dust Management Plan
- Waste Management Plan
- Post Extraction Land Use Plan
- Flora and Fauna Management Plan
- Heritage Management Plan (if relevant)

The preparation of the Environmental Management Plan must include all commitments and undertakings indicated by the environmental assessment submitted to Council for the support for the Development Application.

11.23 BANK GUARANTEE
A Bank Guarantee may be required to be paid to Council as a condition of consent, for the insurance of appropriate rehabilitation works following the cessation of works onsite.

11.24 SECTION 94 CONTRIBUTIONS
The payment of Section 94 contributions is required by Council to provide for the ongoing maintenance of the local road network utilised by the operation for the haulage of material. The subject roadways are not only limited to those directly adjacent to the extraction operation but also those throughout the Shire which receive increased traffic from the quarry operation.

Section 94 contributions must be paid to Council on a quarterly basis in accordance with
the Muswellbrook Development Contributions Plan. The current Section 94 levy is based upon a per tonnage rate, payable for material transported from extraction sites.

11.25 ANNUAL REPORTS
The completion and submission of annual reports must be undertaken at the end of each financial year or as conditioned by Council. An annual report must include but is not limited to the following topics:

- The performance of the operation
- The production types and quantities
- Resource markets
- The implementation and effectiveness of environmental controls and conditions relating to the development
- Results of any environmental monitoring undertaken
- Production and mining operations undertaken during the preceding 12 months
- Workforce characteristics
- Any modifications to the work activities or practises as outlined by the EIS introduced to mitigate any adverse environmental impacts
- Copies of relevant licences and approvals from relevant authorities.

11.26 COUNCIL ADVISORY COMMITTEES
In regards to the operation of extractive industries within the Shire, Muswellbrook Council facilitates an Extractive Industry Committee which involves community representatives, Councillors and Council staff. The Extractive Industry is an advisory committee which manages the operation of extractive industries within the Shire through the maintenance of consent conditions and regular site inspections. Any application made to Council to undertake or modify an extractive industry is considered by the Extractive Industry Committee prior to being reported to Council.

Additional to this Committee, some appropriate operations are also required to conduct Community Review Committees. Community Review Committees (CRC’s) involve representatives from local residents (often neighbours impacted by the development), representatives from the operator, Council staff and Councillors. These meetings are held to discuss and resolve local issues which may arise during the operation of the development.


11.27 COUNCIL AUDITS
Muswellbrook Shire Council undertakes annual audits of extractive industry operations in regards to the compliance with environmental controls, EIS obligations and consent conditions.

The audits are generally undertaken during October/November period by Council officers. The audit recommendations and outcomes are then reported to the next
available meeting of Council’s Extractive Industry Committee for consideration.
APPENDIX A- DEFINITIONS

**Extractive Industry** means the removal of natural resource material through the processes of excavation, dredging or quarrying and includes the storage, stockpiling or processing of extractive materials through methods such as washing, crushing, recycling, sawing or separating.

**Extractive Material** refers to sand, soil, gravel, rock or similar substances that do not are not considered to be minerals within the meaning of the Mining Act 1992.

**Overburden** means the top layer of earth/rock that is to be removed to expose the extractive material.

**Recharge Area** refers to a geographical area in which water infiltrates then percolates to reach an aquifer.

**Relic** means any deposit, object or material evidence relating to the settlement (excluding Aboriginal habitation) of the Shire which is 50 or more years old.

**Significant Vegetation** means native bushland, trees or shrubs in excess of 100mm in diameter at the base and other stands of native vegetation which are identified as vulnerable of threatened plant species.

**Stockpile** means a mound or heap of loose material, such as topsoil or overburden used for backfill of later re-use.

**Threatened Species** means species of flora and fauna listed and scheduled under the National Parks & Wildlife Act 1974 and Section 5a of the Environmental Planning & Assessment Act, 1979.

**Unsaturated Zone** refers to the zone between the land surface and the watertable. It includes the root zone, intermediate zone and capillary fringe. The pore spaces contain water at less than atmospheric pressure, as well as air and other gases;

**Water Contamination** means a change in water quality attributes that produces a noticeable or detectable change in its characteristics.

**Watertable** means the surface of the saturated zone in an unconfined aquifer.

The following page no. is 12-1
SECTION 12 – TOURIST FACILITIES AND ACCOMMODATION

Overview

The intent of this document is to provide assistance to people interested in establishing tourist style accommodation for the public in the RU1 – Primary Production zone, and to guide Council in the assessment of the development applications for such proposals.

The criteria established in this section is not exhaustive, and Council may also require additional information to address issues under Section 79C of the Environmental Planning and Assessment Act 1979. It is recommended that you discuss your proposal with Council staff at an early stage to identify any other issues that are not specifically covered in this section of the DCP.

This Section contains the following sub-sections:-

12.1 – General Requirements  
12.2 – Environment  
12.3 – Health requirements

12.1 GENERAL REQUIREMENTS

12.1.1 Context

Objectives

a) To ensure that tourist facilities and accommodation respond appropriately to their context and do not result in adverse impacts to occupants or to the use and enjoyment of adjoining land

Controls

(i) Provide buffers in accordance with section 22 of this DCP;
(ii) If the adjoining farms have potential to disturb or annoy guests, the following actions should be initiated:
   o Put in place tree planting to filter/screen views of the adjoining farm.
   o Display appropriate signage within the main reception area that advises to the following effect: “This accommodation is located in an agricultural area. Farm activities may cause nuisance or inconvenience from time to time, but such activities are essential to the maintenance of the prosperity and character of our local area”.

12.1.2 Access

Objectives

a) To ensure convenient and safe access and egress is provided to service the development

Controls
(i) Provide on site car parking facilities in accordance with Section 16 of this DCP.
(ii) Provide a single access point to the public road system.
(iii) Design and construct the internal access roads in accordance with relevant AUSPEC criteria based on predicted traffic flows sourced from the *RTA Guidelines for Traffic Generating Development*, or in accordance with civil engineer certified design.
(iv) Access to accommodation facilities is to be via flood free, and suitable for its intended use to accommodate a two wheel drive vehicle in all weather conditions.

12.1.3 Facilities and Services

**Objectives**

a) To ensure that tourist facilities and accommodation provide services and facilities to meet the demands of the development

**Controls**

(i) Provide an appropriately designed and sized on site waste water treatment system to comply with the provisions of Section 23 of this DCP if the development is not within 75m of a reticulated sewerage system.
(ii) Provide an appropriately designed and sized water supply and treatment system if the development is not within 225m of a reticulated water supply system. Reference to compliance accepted guidelines for water quality will be required where on site water supply is to service the development.

12.2 *ENVIRONMENT*

12.2.1 Scenic Character (including signs)

**Objectives**

a) To ensure that development fits in to the rural and/or natural setting without adversely affecting the local visual character

**Controls**

(i) Compliance with Section 14 – Outdoor Advertising.
(ii) If the proposed development can be viewed from adjoining properties and/or roads, screen planting should be provided to filter views into the site.
(iii) Colours and materials for a proposed development should suit the character of the site and of dark natural colours of low reflective quality.
(iv) Development should be sited such that it is not located on prominent knolls or ridge lines, and is well set back from property boundaries.
(v) Especially on rural properties where there is a significant distance from the road boundary to the accommodation destination, appropriate reinforcement signage along the internal access road can be provided.
(vi) Design and lighting of proposed development should take into consideration any design guidelines and codes Council may have in relation to outdoor lighting in rural areas.
12.2.2 Site Location

Objectives

a) To ensure that the site chosen for the proposed development is fundamentally suitable for tourist accommodation purposes and are addressed in any documentation supporting a proposed tourist development.

Controls

(i) The capacity to manage potential impacts on the natural and/or cultural environment is a high priority consideration in the site selection process.
(ii) At the same time the natural and/or cultural environment is a key factor in providing appeal as a rural tourism destination.
(iii) The proposed site, and development concept, will need to have legitimate potential to attract visitors seeking the “country holiday experience” in its different forms.

13.3 HEALTH REQUIREMENTS

Objectives

a) Ensure that food storage and meal preparation areas and processes are conducive to the preparation and consumption of food which is safe for guests.

Controls

(i) Any kitchen used for the preparation or storage of guests food is to comply with the requirements of the Food Act and AS4674 (Design, Construction and Fit out of Food Premises)
(ii) Garbage storage areas for collection are to be located remotely from other site facilities, and not in close proximity to any kitchen facilities.

The following page no. is 13-1
SECTION 13 – FLOOD PRONE LAND

INTRODUCTION
This plan has been prepared in accordance with Section 72 of the Environmental Planning and Assessment Act (EPA Act) 1979 and Regulations. This plan came into force on 10th January 1994 in accordance with the procedure outlined in Clause 24(2) of the Environmental Planning and Assessment Regulation 1980. This plan is based on recommendations of the Floodplain Management Plan prepared for Muswellbrook Shire Council (Cameron McNamara 1988).

13.1.1 Application
This plan shall apply to all land within the Muswellbrook Council area which is flood prone land.

Where this is an inconsistency between this plan and another development control plan applying to the land which is the subject of this plan, the provisions of this development control plan shall prevail.

Council shall take into consideration the provisions of this plan in its determination of development applications relating to land to which this plan applies. Under the provision of Section 90(1) of the Environmental Planning and Assessment Act, 1979 (as amended), Council is required to consider a range of factors in its determination of a development application which would include the provisions of this plan.

13.1.2 Definitions
In this plan:

AEP (annual exceedance probability) means the likelihood of a flood being equalled or exceeded in any single year. A one per cent (1%) AEP event has a likelihood of one change in one hundred of being equalled or exceeded in any single year eg. 1 in 100 years.

COUNCIL means Muswellbrook Shire Council.

DEVELOPMENT means the erection of a building or the carrying out of work, in, on, over or under that land, or the use of that land or of a building or work on that land and includes the subdivision of that land.

EVACUATION PLAN means an outline of measures proposed for the timely, orderly and safe evacuation of persons from flood affected areas.

FLOOD HAZARD means potential for damage to property or risk to persons as a result of flooding.

FLOOD STORAGE AREA means those parts of the floodplain which are used for the temporary storage of floodwater during the passage of a flood.

FLOODWAY means those areas of land where a significant volume of water flows during floods and includes the channel of a river or stream and those portions of the flood plain adjoining the channel which constitute the main flow path for floodwaters.

HABITABLE AREA means a room or rooms (other than a bathroom, laundry, W.C., garage, storage shed or workshop or the like) that are designed, constructed or adapted for activities normally associated with domestic living.
HIGH HAZARD means possible danger to persons; evacuated by trucks difficult, potential for structural damage; possibility of high social disruption and financial losses.

MINOR ADDITION means an addition of not more than 20 square metres in area.

13.1.3 Aims and Objectives

This plan aims to:

- Provide planning provision and guidelines for the determination of development in accordance with the Floodplain Management Plan;
- Minimise the public and private costs of flood damage and risks to life associated with flood events.

The objectives of the plan are to:

- Inhibit the intensification of residential and other inappropriate uses in flood affected areas;
- Ensure that any developments which do take place are designed and constructed in a manner which is compatible with the flood risk of the area.

13.1 DEVELOPMENT AND BUILDING PRINCIPLES

Controls

The following principles must be considered in Council’s determination of development proposals on land to which this plan applies. Applicants shall be advised of these principles prior to submitting development applications. These principles require that:

- Proposed development will not result in increased flood hazard or flood damage to other properties;
- Proposed development should be of a type, height and scale that is compatible with the existing urban and historic fabric of the area;
- Construction methods and materials for that part of the development below the 1% AEP flood levels (as determined by Council) should conform with the flood proofing code as detailed in Section 12.
- Proposed development shall be able to withstand the force of flowing floodwaters, including debris and buoyancy forces.

13.2 NEW RESIDENTIAL DEVELOPMENT

a) The applicant is required to obtain development consent prior to obtaining building consent for new dwellings in any residential zone.

b) In determining a development application Council will follow the principles outlined in Section 13.1.

c) The floor level of all habitable areas shall be at least 0.5m above the 1% AEP flood level, as determined by Council.

d) Materials used are in conformity with the flood proofing code, Section 13.8.
e) The proposed structure can withstand the force of flowing floodwaters including debris and buoyancy forces.

f) A report is provided by a suitably qualified consulting engineer stating that the requirements outlined above have been incorporated into the design of the development.

13.3 ALTERATIONS AND ADDITIONS TO RESIDENTIAL BUILDINGS

a) The applicant is required to obtain development consent for all additions to existing dwellings other than minor renovations or repairs for structures in the residential zone as shown on the map;

b) In determining a development application Council will follow the principles outlined in Section 13.1;

c) Any habitable addition to a dwelling house shall not exceed a total area of 35m$^2$ of additional floor area of the house;

d) Any extension which exceeds 20m$^2$ of additional floor area of the house classed as habitable shall have a floor level at least 0.5m above the 1% flood level, as determined by Council;

e) Any addition to existing dwelling houses shall be related to the floor area of that dwelling as it existing in December 1988.

f) Materials used are in conformity with the flood proofing codes, Section 13.8.

g) The proposed additions can withstand the force of flowing floodwaters including debris and buoyancy forces.

h) A report is provided by a suitably qualified consulting engineer stating that the requirements outlined in (f) and (g) above have been incorporated into the design of the additions.

13.4 NON-RESIDENTIAL DEVELOPMENT

A range of non residential uses are permitted in the flood affected areas. These are listed in the Muswellbrook Local Environmental Plan as amended.

a) Floor levels for non residential uses, excluding habitable areas, may be permitted below flood level provided the development is in accordance with the principles outlined in Section 13.1.

b) The floor level of all habitable areas of proposed development shall be at least 0.5m above the 1% AEP flood level except in the case of change of use of an existing building.

c) The development will not result in increased flood hazard or flood damage to other properties or increase afflux by more than 0.1 metres.

d) The construction methods and materials for that part of the development below the 1% AEP flood level shall conform with the flood proofing code, Section 13.8.
e) The proposed development can withstand the force of flowing floodwaters, including debris and buoyancy forces.

f) Provision shall be made for the safe storage and/or timely removal of goods, materials, plant and equipment in the event of a flood.

g) A report be provided by a suitable qualified consulting engineer stating that the requirements outlined in (d) and (e) above have been incorporated in the design of the development.

An evacuation plan for users of the development is prepared (to the satisfaction of Council) and maintained throughout the life of the development.

In considering development application on non-residential zones, Council shall have regard to:

- the primary objective of the Special Infrastructure (SP2) and Local Centre (B2) Zone, which is to facilitate the existing and continued operation of public uses;

- the primary objective of the RE1 – Public Open Space zone, which is to facilitate the use of publicly zoned land for recreational purposes;

- the primary objective of the RE2 - Private Open Space zone, which identifies land suitable for private public recreation use;

- the primary purpose of the RU1 Primary Production zone, which is to preserve prime alluvial land for agricultural use. In the area covered by this Development Control Plan RU1 and W1 - Waterways zoning also recognises the eroding nature of some of the river bank.

In determining an application in this area Council will require the following:

a) The floor level of all habitable areas of the proposed development shall be at least 0.5m above the 1% AEP flood level, except in the case of a change of use of an existing building.

b) The development will not result in increase flood hazard or flood damage to other properties or increase afflux by more than 0.1m.

c) The construction methods and materials for that part of the development below the 1% AEP flood levels shall conform with the flood proofing code.

d) The proposed development can withstand the force of flowing floodwaters, including debris and buoyancy forces.

e) Provision shall be made for the safe storage and/or timely removal of goods, material, plant and equipment in the event of a flood.

f) A report be provided by a suitably qualified Consulting Engineer stating that the requirements outlined in (a) - (e) above have been incorporated in the design of the development.
An evacuation plan for users of the development is prepared (to the satisfaction of Council) and maintained throughout the life of the development.

In considering development applications in non-residential zones, Council shall have regard to:

- The primary objective of the B2 - Local Centre zone which is to recognise the established non-retail functions of the existing business areas outside the main business centre of Muswellbrook.
- The primary objective of the SP2 – Special Infrastructure zone, which is to facilitate the existing and continued operation of public uses.

In determining development proposals, Council should require that:

a) The principles on Part 13.1 of this Development Control Plan are taken into account;

b) provision has been made for the safe storage and/or timely removal of goods, material, plant and equipment in the event of a flood;

c) the floor level of all habitable areas should be at least 0.5m above the 1%AEP flood level determined by Council;

d) an evacuation plan for users of the development is prepared (to the satisfaction of Council) and maintained throughout the life of the development;

e) a report be provided by a suitably qualified consulting engineer to confirm that the principles and provision of this Development Control Plan have been incorporated into the design of the development.

13.5 DEVELOPMENT PROTECTED BY A LEVEE

- Minimum floor levels for all developments in the township of Denman protected by the levee shall be 107.25m AHD (Australian Height Datum).

- Minimum floor levels for all developments in the township of Muswellbrook protected by the levee shall be 146.3 AHD (Australian Height Datum).

- Where new buildings or additions are proposed within 40m of the existing levee a structural engineer’s certificate shall be submitted with a construction certificate certifying that the proposed structure has been designed to withstand the flood pressures, including debris and buoyancy forces, imposed in the event of an adjacent levee failure.

Loads imposed will be assessed from the velocity/depth data indicated below:
VELOCITY AND DEPTH FLOOD WATERS DUE TO A LEVEE BREACH

<table>
<thead>
<tr>
<th>Height of Adjacent Levee (m)</th>
<th>Distance from Levee</th>
<th>V (m/s)</th>
<th>D (m)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5.0</td>
<td>10.0</td>
<td>20.0</td>
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<tr>
<td>1.0</td>
<td>2.6</td>
<td>0.25</td>
<td>1.0</td>
</tr>
<tr>
<td>2.0</td>
<td>5.0</td>
<td>0.4</td>
<td>3.7</td>
</tr>
<tr>
<td>3.0</td>
<td>6.4</td>
<td>0.6</td>
<td>5.5</td>
</tr>
</tbody>
</table>

NOTE:  
V = velocity of flow  
D = depth of flow  
* = values not determined

13.6 RURAL AREAS

13.6.1 Prior to any subdivision or new development on land affected by the 1% AEP flood, a report from a suitably qualified consulting engineer shall be submitted detailing information on flood levels and flood velocities. The report will also satisfactorily demonstrate that the development or development proposed on allotments to be subdivided, will not increase the flood hazard or flood damage to other properties and shall also satisfy Council that the afflux created at any other point on the flood plain will not be increased by more than 0.1m as a result of the development.

13.6.2 Minor additions to existing dwellinghouses, such as verandahs, patios or the like, will be permitted to be constructed below flood level provided materials used are in conformity with the flood proofing code.

13.6.3 Additions to the floor area of dwellings as at December 1988, such additions comprising no more than 20m² of total additional habitable area of the house at December 1988, may be carried out at the existing floor level provided:
   a) Materials used are in conformity with the flood proofing code;
   b) The proposed additions can withstand the force of flowing floodwaters including debris and buoyancy forces;
   c) A report is provided by a suitably qualified consulting engineer stating that the requirements outlined in (a) and (b) above have been incorporated into the design of the additions.

13.6.4 Additions to the floor area of dwellings as at December 1988, such additions comprising more than 20m² of total additional habitable area of the house may be carried out, provided:
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13.6.5 New dwellings, including replacement of dwellings, may be carried out, provided:

a) The information required by Clause 13.6.1 is submitted with the development application and Council is satisfied the dwelling is not located in a high hazard flood area;
b) The floor level is at least 0.5m above the 1% AEP flood level, as determined by Council;
c) Materials used are in conformity with the flood proofing code;
d) The proposed building can withstand the force of flowing floodwaters including debris and buoyancy forces;
e) A report is provided by a suitably qualified consulting engineer stating that the requirements outlined in (a), (b), (c) and (d) above have been incorporated into the design of the additions.

13.6.6 Other rural buildings such as hay sheds, machinery sheds, dairies and the like will be permitted to be erected below flood level, provided:

a) The information required by Clause 13.6.1 is submitted with the development application;
b) The proposed building can withstand the force of flowing floodwaters including debris and buoyancy forces and a structural engineer’s certificate is submitted stating that the building has been designed to withstand such forces.

13.7 FENCING

- Council will require lodgement of a development application for the erection of fencing in the Racecourse Road area other than rural fences such as 5 wire fences.

- In determining the application, Council will require a report from a Structural Engineer to verify that:
  - The construction will not result in increased flood hazards or flood damage to other properties or increase afflux by more than 0.1 metres.

13.8 FLOOD PROOFING CODE

As part of the Floodplain Management Plan, a Flood Proofing Code as outlined below will be adopted for all buildings or structures including alteration, extensions, renovations and repairs to existing buildings located in flood prone land.

Construction Methods and Materials

Materials used shall be as listed below. These materials will be used in all situations where the component specified will be inundated by the 1% AEP flood.
<table>
<thead>
<tr>
<th>Component</th>
<th>1&lt;sup&gt;st&lt;/sup&gt; Preference</th>
<th>2&lt;sup&gt;nd&lt;/sup&gt; Preference</th>
</tr>
</thead>
</table>
| Flooding and Sub Floor Structure | • concrete slab-on-ground monolith construction.  
  *Nb: clay filling is not permitted beneath slab-on-ground construction, which could be inundated.*  
  • Suspension reinforced concrete slab.                                                       | • Timber floor (T & G boarding, marine plywood) full epoxy sealed joints.                      |
| Nails, bolts, hinges and fittings | • Brass, nylon or stainless                                                                    | • Galvanised steel                                                                           |
| Floor Covering                | • clay tiles                                                                                 | • cement/bituminous formed-in-place                                                           |
|                               | • concrete, precast or insitu                                                                | • cement/latex formed-in-place                                                                |
|                               | • concrete tiles                                                                             | • rubber tiles with chemicals                                                                |
|                               | • epoxy, formed-in-place                                                                     | • set adhesive                                                                               |
|                               | • mastic flooring, formed-in                                                                  | • terrazzo                                                                                  |
|                               | • rubber sheets or tiles with chemical-set adhesives                                          | • vinyl tile with chemical set adhesive                                                       |
|                               | • silicon floors formed-in-place                                                             | • vinyl-asbestos tiles                                                                       |
|                               | • vinyl sheets or tiles                                                                      | • asphaltic adhesives                                                                        |
|                               | • ceramic tiles, fixed with mortar                                                           | • loose rugs                                                                                 |
|                               | • chemical-set adhesive                                                                     | • alkali-resistant grout                                                                      |
|                               | • asphalt tiles, fixed with water resistant adhesive                                         |                                                                                            |
| Wall Structure                | • solid brickwork, blockwork reinforced, concrete or mass concrete.                          | • Two skins of brickwork or blockwork with inspection openings.                              |
| Roofing Structure             | • Reinforced concrete                                                                        | • Timber trusses                                                                             |
|                               | • Galvanised metal construction                                                              |                                                                                            |
| Doors                        | • Solid panel with water proof adhesives                                                     | • Flush panel or single panel with marine plywood and water proof adhesive                   |
|                               | • Flush door with marine ply filled with closed cell foam                                    | • T & G lined door, framed ledged and braced                                                   |
|                               | • Painted metal construction                                                                  | • Painted steel                                                                              |
|                               | • Aluminium or galvanised steel frame                                                        | • Timber frame fully epoxy                                                                   |
|                               |                                                                                            | • Sealed before assembly                                                                      |
| Insulation                   | • Foam or closed cell types                                                                  | • Reflective insulation                                                                      |
| Wall and Ceiling             | • Asbestos-cement board                                                                      | • Brick, common                                                                              |
|                               | • Brick, face or glazed                                                                      | • Plastic wall tiles                                                                          |
|                               | • Clay tile glazed in water proof mortar                                                     | • Metals, non ferrous                                                                        |
|                               | • Concrete                                                                                  | • Rubber mouldings and trim                                                                   |
|                               | • Concrete block                                                                            | • Wood, solid or exterior grade plywood fully sealed.                                         |
|                               | • Steel with water proof applications                                                        |                                                                                            |
|                               | • Stone, natural solid or veneer,                                                            |                                                                                            |
Muswellbrook Shire Development Control Plan
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Flood Prone Land

<table>
<thead>
<tr>
<th>Water proof Materials</th>
<th>Windows</th>
</tr>
</thead>
<tbody>
<tr>
<td>water proof grout</td>
<td>• Aluminium frame with stainless steel or brass rollers</td>
</tr>
<tr>
<td>• Glass blocks</td>
<td>• Galvanised or painted steel</td>
</tr>
<tr>
<td>• Glass</td>
<td>• Epoxy sealed timber</td>
</tr>
<tr>
<td>• Plastic sheeting or wall with water proof adhesive</td>
<td>water proof glues with stainless steel or brass fittings</td>
</tr>
</tbody>
</table>

Electrical and Mechanical Equipment

For dwellings constructed on flood liable land, the electrical and mechanical materials, equipment and installation should confirm to the following requirements:

**Main Power Supply** - subject to approval of the relevant county council the incoming main commercial power service equipment, including all metering equipment, shall be located above the 1% AEP flood. Means shall be available to easily disconnect the dwelling from the main power supply.

**Wiring** - all wiring, power outlets, switches, etc. should, to the maximum extent possible, be located above the 1% AEP flood. All electrical wiring installed below the 1% AEP flood should be suitable for continuous submersion in water and should contain no fibrous components. Only submersible type splices should be used below the 1% AEP flood. All conduits located below the 1% AEP flood should be so installed that they will be self draining if subjected to flooding.

**Equipment** - all equipment installed below or partially below the 1% AEP flood should be capable of disconnection by a single plug and socket assembly.

**Reconnection** - should any electrical device and/or part of the wiring be flooded, it should be thoroughly cleaned or replaced and checked by an approved electrical contractor before reconnection.

**Heating and Air Conditioning Systems**

Heating and air conditioning systems should, to the maximum extent possible, be installed in areas and spaces of the house above the 1% AEP flood. When this is not feasible, every precaution should be taken to minimise the damage caused by submersion according to the following guidelines.

**Fuel** - heating systems using gas or oil as a fuel should have a manually operated valve located in the fuel supply line to enable fuel cut-off.

**Installation** - the heating equipment and fuel storage tanks should be mounted on and securely anchored to a foundation pad of sufficient mast to overcome buoyancy and prevent movement that could damage the fuel supply line. All storage tanks should be vented to an elevation of 600mm above the 1% AEP flood.

**Ducting** - all duct work below the 1% AEP flood should be provided with openings for drainage and cleaning. Self draining may be achieved by constructing the duct work on a suitable grade. Where duct work must pass through a water-tight wall or floor below the 1% AEP flood, the duct work should be protected by a closure assembly operated from above the 1% AEP flood.
SECTION 14 – OUTDOOR SIGNAGE

Introduction

This section provides controls for any outdoor signage that requires development consent under the provisions of the LEP. Some signage is also permitted without development consent (see Schedule 2 - Exempt Development, Muswellbrook LEP). These controls have been formulated having regard to “Outdoor Advertising - An Urban Design-Based Approach” produced by the NSW Department of Planning.

Reference should be made to any relevant area character statements to ensure that any proposed signage is consistent with the planning objectives for that area.

Any proposal for outdoor signage must take into consideration requirements of State Environmental Planning Policy No. 64 - Advertising and Signage and Part B of the Building Code of Australia (BCA) in particular sections dealing with dead and live loads, load combinations and wind loads.

In addition to the controls in this section, applicants proposing outdoor signage on classified roads including highways, must consider the safety of motorists in accordance with the provisions of SEPP No. 64 and the “Transport Corridor Outdoor Advertising and Signage Guidelines” produced by the Department of Planning.

Application

In assessing a development application for any signage (or that includes signage as part of a larger development) lodged with Council, the provisions of this section of the DCP will apply.

Definitions
Further to the above descriptions of signage, definitions relating to the provision of signage are contained within the Muswellbrook LEP and within SEPP No. 64 – Advertising and Signage.

Aims

Outdoor signage that:

a) has a consistent approach to design and positioning.
b) does not detract from significant views, vistas and sensitive streetscapes.
c) adds character to the streetscape and complements the architectural style and use of buildings.
d) minimises visual clutter or environmental degradation through proliferation.
e) conveys the advertiser’s messages or images without causing an adverse social impact upon the community.

Objectives

a) To ensure that signage (including advertising):

   (i) is compatible with the desired amenity and visual character of an area, and
   (ii) provides effective communication in suitable locations, and
   (iii) is of high quality design and finish, and

b) to regulate signage (but not content) under Part 4 of the Act, and

c) to provide time-limited consents for the display of certain advertisements, and

d) to regulate the display of advertisements in transport corridors, and

e) to ensure that public benefits may be derived from advertising in and adjacent to transport corridors.

14.1 SIGNAGE DESIGN ANALYSIS

The following signage design analysis aims to provide guidance on desirable forms of signage in Muswellbrook Shire for different zones and areas. Signage design should reinforce the character of signage described in this analysis.

Muswellbrook (B2 – Local Centre)

These areas consist mainly of one and two storey buildings with shops at ground floor level that serve the local needs of the community and some shop top accommodation above. Existing signage is limited to small scale business identification signs such as fascia, under awning (some illuminated), top hamper and window signs. There are no large scale advertisements given the limited scale of the built form. There are limited examples of signage located above awning height that are not characteristic, or have been integrated into the design of the building. The existing character of these areas should be retained by limiting signage to small scale business and building identification signs in the forms previously described.

Denman (Conservation area)

Many of the older commercial buildings have simple timber or rendered parapets on their upper walls and flat unrolled (not bullnosed) awnings of corrugated galvanised iron. The survival of ‘traditional' signage and of ‘traditional' awnings on past and present
commercial buildings are of particular note. Most signage is painted and on facades or on/under awnings (and illuminated signage is limited, though intrusive).

**14.2 MATTERS FOR CONSIDERATION**

Under the provisions of clause 8 of SEPP 64, Council will not grant consent to display signage unless it is satisfied that the signage satisfies the following assessment criteria:-

1 **Character of the area**
   a) The proposal is compatible with the existing or desired future character of the area or locality in which it is proposed to be located
   b) The proposal is consistent with a particular theme for outdoor advertising in the area or locality

2 **Special areas**
   a) The proposal does not detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas

3 **Views and vistas**
   a) The proposal does not obscure or compromise important views
   b) The proposal does not dominate the skyline and reduce the quality of vistas
   c) The proposal respects the viewing rights of other advertisers

4 **Streetscape, setting or landscape**
   a) The scale, proportion and form of the proposal is appropriate for the streetscape, setting or landscape
   b) The proposal contributes to the visual interest of the streetscape, setting or landscape
   c) The proposal reduces clutter by rationalising and simplifying existing advertising
   d) The proposal screens unsightliness
   e) The proposal does not protrude above buildings, structures or tree canopies in the area or locality
   f) The proposal does not require ongoing vegetation management

5 **Site and building**
   a) The proposal is compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located
   b) The proposal respects important features of the site or building, or both
   c) The proposal shows innovation and imagination in its relationship to the site or building, or both

6 **Associated devices and logos with advertisements and advertising structures**
   a) Any safety devices, platforms, lighting devices or logos have been designed as an integral part of the signage or structure on which it is to be displayed
7 Illumination
  a) Illumination will not result in unacceptable glare
  b) Illumination will not affect safety for pedestrians, vehicles or aircraft
  c) Illumination will not detract from the amenity of any residence or other form of accommodation
  d) The intensity of the illumination can be adjusted, if necessary
  e) The illumination can be subject to a curfew

8 Safety
  a) The proposal will not reduce the safety for any public road
  b) The proposal will not reduce the safety for pedestrians or bicyclists?
  c) The proposal will not reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?

14.3 SIGNAGE DESIGN, LOCATION AND CONTENT

14.2.1 Design, scale, size

Objective
  a) Signage that enhances the architecture of existing buildings, streetscapes and vistas.

Controls
  (i) Provide outdoor signage that is visually interesting and integrated with architecture of the building.
  (ii) Use lettering, materials and colours that complement the existing building or place.
  (iii) Avoid signage that dominates the building.
  (iv) Provide an appropriate scale, form and similar proportions to the desired character of the streetscape. (Refer to character statements above and Fig. 16.1)
  (v) Do not locate signage where it will obstruct views, vistas or cause significant overshadowing.
  (vi) Provide outdoor signage which does not dominate the building or protrude above any parapet or eaves.
  (vii) Avoid locating advertisements over a window, other openings or which covers significant architectural detail of the building.
  (viii) The proposed means of fixture to the building or any support structure for freestanding signs must be consistent with the character statement in clause 16.1.
  (ix) Avoid freestanding signs that dominate the skyline when viewed from the ground within one kilometre.
14.2.2 Location

Objective

a) A consistent approach to the positioning of outdoor signage to enhance the streetscape.
b) To allow flexibility and provide assistance for locating signage incorporated into the design of the building

Controls

(i) The façade of the host building is subdivided into a series of vertical or horizontal panels on which the signage can be placed (fig. 16.2).
(ii) Join together two smaller panels to form a more usable horizontal or vertical panel. (Fig. 16.3)
(iii) Project lines from the adjacent buildings across the façade of the building to identify horizontal panels where signs can be located to achieve visual continuity with neighbouring buildings. (Fig. 16.4).
(iv) The preferred location for signage is identified in the character statement in clause 16.1.
Figure 16.2 Locating signage

Figure 16.3 Configuration of signage
14.2.3 Restrictions

**Objective**

a) Restrictions on outdoor signage to avoid visual clutter and the proliferation of outdoor signs.

**Controls**

(i) Do not provide any more than one large building and/or business identification sign per building to be allocated to a major tenant of the building.

(ii) Under awning signs must be located 2.6m above natural ground level, not exceed 2.5 m in length or 0.5 m in height.

(iii) Avoid advertising products that are not sold on the premises.

(iv) Only one directory board permitted for multiple occupancy buildings.

(v) Provide signs that respect the viewing rights of other advertisers. No advertising structure shall be erected closer than 3 metres in a horizontal plane to any other advertising structure.

(vi) Integrate the name or logo (max. - 0.25m²) of the person who owns or leases an advertisement into the signage display area.

(vii) Proposed signage greater than 20 square metres and within 250 metres of and visible from a classified road will be referred to the RTA for agreement.

(viii) Permanent advertising panels have a maximum surface area of 6m² and are limited to one per property.

(ix) Pole or pylon signs shall have a maximum advertising area of 3m² and a maximum height of 7m to the top of the sign, measured from ground level (existing).
14.2.4 Inappropriate forms

Objective

a) Restrictions apply to certain types of signs to preserve residential character, streetscapes and vistas.

Controls

(i) Outdoor signage other than exempt development, business or building identification signs are not permitted in the following areas identified under the LEP:-

- R1 Residential zone
- E3 Environmental management zones
- Heritage conservation areas
- RE1 and RE2 Open space zones

(ii) The following forms of signage are generally not considered appropriate in Muswellbrook Shire:-

- Above awning signs (attached to the top surface of awning)
- Horizontal projecting wall signs are not favoured and shall not be permitted except in exceptional circumstances.
- Flag pole signs
- Inflatable signs
- Moving and flashing signs
- Video Signs
- Roof or sky signs
- Large signs (>20m² or higher than 8m) including billboards

14.2.5 Content

Objective

a) Social impact of signage to be minimised in the public interest.

Controls

(i) Advertising alcohol products is limited to places that sell such products.

(ii) Discriminatory advertising messages are considered to be undesirable as specified in the Anti-Discrimination Act 1977.*

(iii) Signage messages should not offend sensitive land uses (churches, schools, day care centres).

(iv) Changes in content or message of any Council approved sign will not require development consent provided the proposal meets the controls of this clause.

(v) The content of signage must relate to the premises or place at which the sign is displayed.

14.2.6 Pedestrian and road safety

Objective

a) Outdoor signage must promote driver and pedestrian safety.

Controls
(i) Provide signage that avoids confusion with road traffic signs, signals or use the word “stop” or other directions.
(ii) Do not obscure a road hazard, oncoming vehicles or pedestrians.
(iii) Avoid signage messages, designs, or bright lighting that may distract motorists.
(iv) Signs must not be located where drivers require a higher level of concentration for example, major intersections.

14.2.7 Signs on heritage items and in conservation areas

Objective

a) Some limitations on signage are necessary to conserve the significance of heritage items and/or conservation areas.

Controls

(i) One sign per property which is a minor element and restrained in design.
(ii) Original signs are retained and conserved at the site.
(iii) Avoid new signs on side walls of buildings.
(iv) Provide a high standard of materials and graphics.
(v) Use traditional designs, colours, lettering and construction methods.
(vi) Avoid placing illuminated signs on heritage items.

14.2.8 Illuminated Signs

Objective

a) Local amenity is preserved with appropriate levels of illumination.

Controls

(i) Provide levels of illumination that do not cause light spillage for nearby residential properties.
(ii) Avoid positioning illuminated signs on properties fronting laneways between residential and commercial areas.

14.2.9 Roof or sky advertisements

Objective

a) Generally, this form of signage is not permitted in Muswellbrook Shire but there may be site specific circumstances where Council may consider such signage.

Controls

(i) New signs must either replace one or more existing roof or sky signs and improve the visual amenity of the locality or improve the finish and appearance of the building and the streetscape.
(ii) Avoid signs that are higher than the highest point of any part of the building including lift overruns or air conditioning plants but excluding flag poles, aerials, masts.
(iii) Design roof or sky signs that are no wider than any part of the building and also in accordance with the desired character statement in clause 16.1.

14.2.10 Wall signs

Objective

a) The visual impact of wall signs is minimised to enhance vistas, streetscapes and skylines.

b) The provision of wall signs are integrated into the design of the building

Controls

(i) Allow only one wall sign per building elevation.
(ii) Integrate wall signs into the overall design of the building.
(iii) Avoid signs that have an area greater than:
       - 10% if the elevation is > 200m²
       - 20m² if the elevation is greater than 100 m² but < 200 m²
       - 20% for elevations of < 100 m²
(iv) Protrusions from the wall should be no greater than 300 millimetres.
(v) Avoid locating a wall sign on a building elevation if there is an existing building or business identification sign.

14.2.11 Special promotional advertisements

Objective

a) Outdoor signage for this purpose is confined to commercial areas to minimise impacts.

Controls

(i) Design special promotional signage in accordance with the character statement.
(ii) Special promotional advertisement must be consistent with this DCP.
(iii) A limit of three months in any 12 month period applies.
(iv) Avoid product images or corporate branding that exceeds 5% of the signage display area.

14.2.12 Signage to assist disabled access

Objective

a) All signs and symbols including their location, size, and illumination are designed to be understood by all users, including those with sensory disabilities in accordance with AS1428 (Building Code of Australia).

Controls

(i) Display disabled access signs where they can be easily seen. Hearing loop logos should be provided if required.
(ii) Include tactile communication methods in addition to visual methods to assist people with various disabilities.
(iii) Provide international symbols with specifications relating to signs, symbols and size of lettering complying with AS 1428.2.
(iv) Use letter height that complies with Cl 14 AS 1428.1.
(v) Provide specification for visual communication systems relating to height of letters, illumination, location and background contrast in accordance with AS 1428.2.

14.2.13 New technologies

Objective

a) Flexibility in Council’s controls for outdoor signage is required to assist in the assessment of signage generated by new technologies.

Controls

(i) Future signage generated by new technologies will be considered on their merits.
(ii) Proposals involving animation, video screens and other forms of movement are considered inappropriate.
(iii) Advertisements that cover glass facades (for example, coloured film) are generally discouraged unless they are limited in size and period of use.

14.2.14 A – Frame Signs

Objective

a) To allow A – frame signage subject to certain criteria
b) To ensure pedestrian and visual amenity is not adversely affected

Controls

(i) Council will consider development applications for A-Frame signs within/adjoining B2 - Local Centre and Industrial zones as identified in the Muswellbrook LEP subject to compliance with the following criteria
(ii) The applicant enters into an agreement prepared with Council and obtains public liability insurance indemnifying Council of any potential claims to a value of $10 million or other sum as approved by Council.
(iii) Council is satisfied that adequate pedestrian thoroughfare is maintained and the signage does not significantly obstruct the footpath or create a safety hazard.
(iv) The applicant places Council’s registration number on the bottom right hand side of the sign;
(v) The signage is placed in its designated position and is removed at the close of trading each day
(vi) The signage board is of the minimum dimensions of 500mm wide x 1m high and of a maximum size of 700mm x 1200mm, and when erected is fixed appropriately.

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15.1

15.1.1 Introduction
Muswellbrook Shire has been settled for many thousands of years and it has many places that are significant because of natural, Aboriginal and European features and associations. In particular it has many buildings dating from as far back as the early 19th century which provide first hand information about how the Shire developed, who played parts in this development, how they lived their lives and how they built their living environment. Many of these built, as well as other, items are considered worth passing on to future generations.

15.1.2 Objectives
The aim of these controls is to ensure that qualities of these heritage items that give them their significance are retained. To achieve this aim Council wishes to encourage the following objectives:

- Conservation of items and groupings of items which have played a part in creating the area's identity and which provide insights into early periods of the region's development;
- Integration of heritage conservation practices into its statutory planning;
- Public familiarity with and understanding of heritage conservation practices;
- Public involvement in the conservation of the area's environmental heritage;
- A fair and objective approach to conservation of privately and publicly owned heritage items for both the public good and private benefit;
- Carrying out all new development affecting items of the area's environmental heritage in a manner that is consistent with conservation best practice as set out in the Burra Charter and for natural heritage in the Australian Natural Heritage Charter.
- Ensuring that new works and maintenance do not cause harm to or cause any loss of the significance of any heritage item.

15.1.3 How should the controls be used?
These controls have been prepared to help owners of heritage items (particularly built items), people who are seeking to develop or alter places which have heritage items or are within heritage conservation areas, and applicants for development of sites or buildings adjacent to listed heritage items, to understand what they and what Council are required to do.

Anyone who needs approval to alter or otherwise change such items should become familiar with these controls and should refer to the heritage provisions in Muswellbrook Shire's Local Environmental Plan (LEP). These documents will provide an understanding of Muswellbrook Council's approach to conserving its local government area's environmental heritage.

These controls relate to buildings, works, relics, trees and all other physical features that are in places which have been identified as containing heritage items or are within heritage conservation areas. They address impacts that might result from buildings, works, land uses or subdivisions which are proposed in development applications relating to these places or to places that are in their vicinity.
15.1.4 How do the controls operate?

The Muswellbrook Shire LEP provides the legal framework for assessing all proposals for new development in Muswellbrook Shire. It embodies the standard heritage provisions that have been prepared by the NSW Heritage Office to implement the principles of the Burra Charter and for natural heritage the Natural Heritage Charter. The controls explain how Council will consider all applications for changes affecting listed heritage items and heritage conservation areas.

The controls are based on principles in the Burra Charter and Natural Heritage Charter that are elaborated in the NSW Heritage Manual which is the basic reference used by all Councils in NSW in managing the environmental heritage of their local government areas and in making conservation management decisions.

The basic principle of both the Burra Charter and the Natural Heritage Charter is that the heritage significance of places should be conserved. This means that that any changes to heritage items or heritage conservation areas should be judged against the effect they will have on what they contribute to the significance of their places. In practice this requires an understanding of an item's history and development, its physical features and individual components, and its relationship to the history and geography of an area.

15.1.5 Aboriginal Heritage & Conservation

Council respectfully acknowledges the local Aboriginal people who are the Traditional Owners and custodians of the land within the Muswellbrook LGA.

Aboriginal people have lived in NSW for more than 40,000 years. There's evidence of this everywhere, in rock art, stone artefacts and other sites across the state.

The land and waterways are associated with dreaming stories and cultural learning that is still passed on today. It is this cultural learning that links Aboriginal people with who they are, and where they belong.

So to protect Aboriginal heritage, we can't just look after sites in parks, or artefacts in museums. Aboriginal people need to be able to access land, to renew their cultural learning. And they have to be involved and consulted in the conservation of our natural environment.

Aboriginal people are the primary determinants of the significance of their heritage. Aboriginal community involvement needs to occur early in the design process to ensure that Aboriginal community values and concerns are fully taken into account. Information arising out of consultation allows consideration of Aboriginal community views about significance and impacts, as well as the merits of management or mitigation measures that could be incorporated in an informed way.

Input from the Aboriginal community is an essential part of assessing the significance of Aboriginal objects and significant places likely to be impacted by an activity or development. Therefore, Council will require proponents to undertake consultation with the local Aboriginal Community as an integral part of considering the impacts of their proposal.

In order to ensure that local Aboriginal Community is consulted in the development application process, the following requirements must be met:-

a) The proponent must actively seek to identify stakeholder groups or people that may wish to be consulted about the project and invite them to register their interest. Undertaking this task
prior to lodging a development application can prevent delays in the assessment in the
process and assist in addressing any issues identified as part of the proposal submitted for
consideration by Council.

b) Compliance with a) above can be achieved by the proponent placing an advertisement in the
local paper seeking registrations of interest. The proponent should also contact the following
organisations to determine the potential impact of the proposed development and preferred
course of action:-

- The local Aboriginal Land Council (Wanaruah)
- Registrar of Aboriginal Owners
- The Department of Environment and Climate Change
- Native Title Services

This is a preferable course of action for:-

- subdivisions of undeveloped land
- where the scale of the development is likely to result in significant ground disturbance
- where the proposal is located within 100m of a waterhole, river or stream
- where the site contains rock outcrops, caves, platforms

c) The proponent may then need to commission an Aboriginal Heritage Study to determine the
presence of artefacts or sites of significance, and obtain appropriate recommendations for
how these matters can be addressed in submitting the development proposal.

d) For smaller proposals, Council will advertise development applications in accordance with
Section 3 of this DCP, which will invite registrations of interest from interested groups or
individuals, and Council may require an Aboriginal Heritage Study to be undertaken in
accordance with c) above following consultation with the Local Aboriginal Land Council if
necessary.

15.1.6 Statements of Heritage Significance
The physical features and historical associations of heritage items and heritage conservation
areas that must be taken into account when changes are being considered are described in
inventory forms in the Muswellbrook Shire-Wide Heritage Study and in other heritage registers
and heritage studies. Generally these inventory forms include a formal **Statement of Significance**
which summarises the features and associations that make a place significant for a local or wider
community.

Usually, a **Statement of Significance** will focus on what can be seen in a place but sometimes it
will refer to things under ground such as potential relics or to intangible things such as patterns of
subdivision. Although **Statements of Significance** often concentrate on buildings it is good practice
to consider buildings within their settings (settings are sometimes referred to as **curtilages**, the
areas that are integral to retaining and interpreting the heritage significance of places). Sometimes, heritage items need to be considered within the wider contexts of the vistas,
streetscapes or rural landscapes in which they are set.

15.1.7 What Gives a Place its Significance
The physical features and historical associations of a place that can give it heritage significance
include:
• Its role in the history of the area. For example it may be one of the earliest houses in the area and a rare survivor
• Whether somebody important lived there for a period or an important event took place there
• In the case of a building any features of design, form or details (eg roof shape, windows, doors, verandahs, fencing, gardens, materials used or the quality of the execution of the building) are innovative, unusual or unique for its period.
• Whether what survives can provide insights into past ways of life, including commercial and recreational activity.
• How rare or representative these features or associations are within the Shire

For heritage items and heritage conservation areas these features and associations will be described in a formal Statement of Significance and must be considered before any proposals that affect a heritage item or heritage conservation area are drawn up.

15.1.8 Statements of Heritage Impacts
Generally, before changes to land uses, buildings, works and subdivision can proceed, Muswellbrook Shire's LEP requires consent from Council to a development application (DA). When changes might affect heritage items or heritage conservation areas a Statement of Heritage Impact needs to be included with the other statements that must accompany any DA. Statements of Heritage Impact do not have to be large documents but they do need to address comprehensively four questions: ‘what makes for the heritage significance of the place?’; ‘how will the proposed development affect this heritage significance?’; ‘will there be benefits for the place which outweigh any loss of heritage significance?’; and, ‘might there be alternatives which would have lesser adverse effects on heritage significance?’ It is always a good idea to check Council’s views on these questions before preparing statements of heritage impacts.

15.1.9 Assessing impacts
The purpose of these statements is to ensure that new developments in or adjacent to a place do not diminish or compromise the things that make for the heritage significance of that place. Ideally, new developments will enhance the heritage significance of a place. Generally, they should ensure that what makes for heritage significance is conserved, either in the company of new developments or (where demolition, alteration or relocation are necessary in the last resort) in the form of appropriate documentation for posterity.

In the process of assessing impacts on heritage significance, proposals for new development will be assessed against whatever has been stated about associations and physical features in Statement of Significance and against what reasonably may be implied from other available physical and documentary evidence. This is to ensure that new developments will be sympathetic with features and associations that make for the heritage significance of a place.

Assessments of impacts will mostly be concerned with implications for physical features. Assessments of the implications for less tangible qualities that relate to associations do not commonly need to be made but, when they do, the assessments need to focus on what makes for a sense of place.

Assessments of impacts on physical features should be concerned to ensure that new developments do not diminish or compromise the heritage significance of places by introducing
elements which are out of character with or which draw attention from the things which make for the heritage significance of places. Where new developments are not compatible with the existing ones impact assessments should ensure that negative impacts are minimised. This means that new developments should not clash visually with existing ones but it does not mean that new developments should be similar in appearance.

To determine what should be looked for and reported on, consultants should be guided by information which is publicly available about the heritage item that will include: statements of significance in heritage studies; information in National Trust Register listings; advice from the Muswellbrook Local and Family History Society; information in submissions which have been made to Council in relation to the Development Application before it was resolved by Council; and anything suggested by what may be observed or uncovered on the site. This information should be sufficient to indicate the degree of investigation needed. For example, an assessment of a heritage item as of regional significance would require a closer investigation than for an item of local significance.

15.1.10 Responsibilities of an Owner or Applicant
In addition to their usual responsibilities to maintain their properties and to submit DAs to Council for proposed alterations and additions owners of places with heritage items and of sites in heritage conservation areas need to be aware of why these places have heritage significance. Before deciding on the type and extent of any changes they might want owners should check the level of significance that has been assessed for these places, ie whether they have been classified as having local or State heritage significance, because this will determine whether or not Council has to refer to the State Government for advice.

Levels of significance have implications for the degree of scrutiny that has to be given to heritage impacts and this can affect how long it might take for a decision to be reached. In the case of items of local significance impacts will be considered against Statements of Significance. In the cases of items of regional or state significance impacts should be considered against, respectively, statements of Conservation Policies or Conservation Management Plans that have been developed from Statements of Significance.

15.1.11 Council's Responsibilities
The State Government requires Council to deal with DAs affecting all heritage items listed as being of local significance, including proposals for additions and alterations to buildings. When changes are proposed to items of State significance Council must refer the application to the NSW Heritage Office and obtain its concurrence.

Council can not issue consent to any demolition or any other development of a heritage item of State significance without notifying the Heritage Office. Development applications that involve items that are covered by Heritage Conservation Orders made by the Heritage Council of NSW require the concurrence of the Heritage Council.

WHAT CHANGES ARE ACCEPTABLE?

15.1.12 Generally
The best way to conserve a built heritage asset is to maintain a viable use for it, with a Conservation Management Plan to guide its use and maintenance. Where the conservation of an item can not be secured by any other means Council can approve a use that might otherwise not
be permitted under its LEP.

In order to maintain viable uses it is often necessary for owners to make alterations or additions to the things that are considered to give heritage significance to a place. Generally, these alterations and additions will be permissible so long as they do not adversely affect the significance of a heritage item or a heritage conservation area.

In some cases where proposed changes affecting a heritage item or a heritage conservation area are of a minor nature or are essentially maintenance, and will not adversely affect what is significant, Council can allow works to proceed without requiring an owner to lodge a DA (so long as Council has been properly notified).

Generally, however, DAs will be required under the LEP for any changes involving alterations or additions and in assessing DAs Council will consider impacts on heritage significance when it considers all other likely impacts.

15.1.13 Buildings

When proposing to make changes in a place that contains built heritage items or in a heritage conservation area:

- Minor changes are likely to be acceptable if they are consistent in form, scale, finishes and details with those of the original

- Substantial extensions may be acceptable where they do not affect the integrity or character of the original building. Extensions that are separated from the original building and that respect the form, shape, scale, materials, finishes and detail of the original, which are designed in a simple unobtrusive style can meet these criteria. The architectural style and details of new work should complement, not compete with, the original building.

- In regard to changes in building elements:
  
  (a) Changes to facades that are visible from public places are generally not encouraged.
  
  (b) Changes to materials and the roof form should be minimised. Large, complex roofs may allow more options because changes may be less noticeable.
  
  (c) Changes to details should be true to the original details. Simple cottages, for example, should retain their simplicity. Decorative detail which has been removed may be put back, but decoration of kinds that were never present should never be added.
  
  (d) High walls and fences, and garages in front of buildings can obstruct views of older buildings and create an inappropriate built character.
  
  (e) Similarly, unsympathetic garden treatment (eg excessive use of concrete or paving, dense informal plantings or inappropriate plantings) can detract from the historic character of a place.

- Total or partial demolition or removal of a listed heritage item will only be considered under exceptional circumstances. Council must notify the Heritage Council of all proposals to demolish heritage items. If an item is of State significance demolition and any other major
15.1.14 Heritage Conservation Areas

Heritage conservation areas are identified because these areas, overall, are significant for a community. Generally, they contain some buildings, works, relics or trees which have been identified as heritage items but it is not necessary for heritage conservation areas to contain any items that are heritage items in their own right.

The purpose of heritage conservation areas is to preserve the physical relationship of features in them that date from similar periods or are associated with certain historical themes and reflect lifestyles related to the periods or themes. In towns, heritage conservation areas are generally characterised by consistency in design features, materials, scale and proportions of individual buildings, whether the buildings are old or new.

New works in a heritage conservation area will be acceptable only if they serve to reinforce the physical character of the area. Works such as buildings that are visually intrusive or otherwise non-contributory to the character of the area will not be acceptable.

15.1.15 Development of sites near heritage items and heritage conservation areas

Because heritage items and heritage conservation areas need to be seen in context in order for their significance to be appreciated it is particularly important for owners of land in their vicinity to understand that proposed changes might affect how a heritage item or heritage conservation area can be seen. For this reason Council has to assess impacts on the heritage significance of heritage items and heritage conservation areas of DAs that relate to adjacent sites.

15.1.16 Sites with 'archaeological potential'

In order to establish the existence and condition of archaeological evidence in potential archaeological sites as well in many places that have heritage items appropriate research and investigation needs to be carried out before development can take place. This is so as to avoid inadvertent loss or destruction of any evidence. While it is not always the case that relics will be recovered, or even found, it is essential that potentially surviving material be properly documented. In many cases it is possible to recover archaeological evidence prior to site development and in some cases it may even be possible to incorporate archaeological features within a new structure.

Under the provisions of the Heritage Act 1977, a person must not disturb or excavate any land 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 unless the disturbance or excavation is carried out in accordance with an excavation permit.

A person must also not disturb or excavate any land on which the person has discovered or exposed a relic except in accordance with an excavation permit, and fines may be imposed if these provisions are not complied with.

15.1.17 BEFORE MAKING ANY APPLICATION TO CHANGE A HERITAGE ITEM

Consult beforehand with Council

Anyone considering carrying out works on a heritage item or in a heritage conservation area or in
the vicinity of these should discuss their ideas with Council staff and/or Council's Heritage Adviser before lodging a development application. A consultation can be arranged if the applicant has sketches of the proposal drawn to scale to a reasonable level of accuracy. These sketches need not be elaborate but they should include at least a site plan showing adjoining properties, boundaries and buildings - especially heritage items - and elevations, sections and photographs where these will assist an understanding of how the proposed development will relate to existing development.

Check whether there are any heritage incentives
All levels of government recognise that public requirements for sympathetic maintenance and development of heritage places can impose cost burdens on private landowners. Both the Commonwealth and State Governments offer limited assistance with heritage conservation projects dependent on the status and listing of the heritage item. Council also may give incentives to encourage development proposals that are sympathetic with existing significant heritage. Anyone proposing to make changes to a heritage item should ask Council staff and/or Council's Heritage Adviser about possible assistance.

The Role of Council's Heritage Advisor
In most cases these controls will provide sufficient guidance to prospective developers of heritage items or sites in heritage conservation Areas, or sites adjacent to these, to enable them to prepare preliminary plans and elevations. Council's Heritage Advisor is available to discuss these plans and elevations as well as to suggest where more information may be obtained, such as in advisory notes prepared by Council or by the Heritage Office. Particularly in cases where items are of special heritage significance or where substantial alterations or additions are proposed it is most important that expert advice be sought from an appropriate (eg architectural) heritage professionals.

The Role of the State Government
Muswellbrook's LEP and its Heritage DCP are administered by Muswellbrook Shire Council, which can deal with all minor matters and with matters affecting items of local and regional significance. Council must refer any proposed demolition of a heritage item and any development application affecting a heritage item of State significance referred to in Schedule 5 of the Muswellbrook LEP to the NSW Heritage Council. References to the Heritage Council can lead to delays in the granting of consent, especially where an owner has not yet prepared an impact assessment or Conservation Management Plan for a State significant heritage item.
PART 2 – HERITAGE ITEMS AND CONSERVATION AREAS DESIGN CONTROLS

15.2.1 Changes to buildings

Muswellbrook Shire has many buildings of heritage value, dating as far back as the early 19th century. These exhibit a range of architectural features which is representative of building styles from many periods. These features are worth keeping because they help to define the special character of both the Shire and its heritage conservation areas.

Most changes to built heritage items will involve alterations and additions. Sometimes changes will involve what is referred to as 'adaptive reuse' or a change to the use of a building in its original location. Rarely the changes will involve a demolition and/or relocation of a building.

Whatever the proposal:

- The first priority is to conserve the significance of built features that are part of the environmental heritage of Muswellbrook Shire and

- The second priority is to ensure that a building that is a heritage item or is in a heritage conservation area remains recognisably of its period.

Generally, the older a building the more important it is to retain the original fabric, whether it is visible or not. Fabric means building materials, as they were originally put together.

15.2.2 General Design rules

These priorities lead to some important rules for changes to buildings in heritage items or heritage conservation areas:

(i) All features of significance should be conserved or re-instated. Further, if the opportunity presents, inappropriate alterations should be removed and original features reconstructed as well as possible.

(ii) As much as possible of the original fabric should be kept. Missing elements may be replaced but only if they are known to have existed.

(iii) When new work is added the scale and elements of the earlier building should determine how closely the new work should resemble the old. Combine only what goes well together, and never copy features that are out of character with other traditional buildings in the area.

(iv) New work should never pretend to be original work and this should be apparent, at least on close inspection, though new building elements should be constructed with the original technology and original functional purpose of these elements in mind.
(v) Completely new buildings should never seek to replicate older styles. They should be designed to be in sympathy with older buildings in their vicinity.

(vi) When there is a choice, seek to improve the appearance and unity of a streetscape. Where there is a variety of buildings in a street or a row of buildings, features of the immediate neighbours should be taken as the reference point for proposed changes.

As a general guide as to what new works might be appropriate most of Muswellbrook’s older buildings exhibit a fairly limited range of stylistic details because local builders tended to work with the forms and materials they knew well. The exceptions to this are the houses that were built by the relatively well-off and some more substantial commercial building which tended to be more individual in terms of their layouts and overall forms though still fairly typical of their periods in their details and decoration.

15.2.3 Conservation of existing built works

The Burra Charter sets out four ways in which cultural heritage can be conserved:

- **Maintenance.** Of the physical ‘fabric’. Periodic maintenance, to ensure that a thing doesn’t fall into disrepair as the result of neglect or of ageing, is the most important task in conservation. Often, this is all that is needed to keep what is significant about a thing.

- **Restoration and reconstruction** (including repair). These may become necessary when the physical fabric of something that has significance has been allowed to deteriorate. They can sometimes be difficult to carry out properly when things such as materials have changed.

- **Preservation.** This includes stabilising things that are in danger, providing protection against the elements and placing restrictions on how people may use a thing. Preservation can be expansive and inconvenient and the need for it can often be avoided by carrying out periodic maintenance.

- **Adaption.** Sometimes the only practical way of keeping what is significant about a thing is to physically alter it or give it a new use. A minimalist approach should always be taken to adaption so as to avoid the irreversible loss of what is significant about a thing.

As some of these can be carried without the need for a DA, owners contemplating changes to a building should discuss their ideas with Council staff and/or Council Heritage Adviser. Even when building works do not require development consent the issue of whether planned works are sympathetic to existing works must be addressed before work is done because inappropriate works can irretrievably compromise or diminish built features that make for the heritage significance of a place.

15.2.4 The form of new works

When the impacts of new building works are being considered the prime consideration will be: ‘how will elements of new developments relate visually to existing building works?’ Building forms can produce powerful visual intrusions into the curtilage of a heritage item and visual conflicts with features of the wider settings of existing buildings should be minimised where possible.

The main formal elements to be considered when assessing the visual impacts of
new building works are:

(i) building *footprints*, ie building densities, percentages of allotments which are built on, separations, setbacks, orientation and shapes of floor plans. Although these elements are largely controlled by provisions in Muswellbrook Shire's LEP and DCPs their variation in older buildings is a reflection of the different lifestyles of people at different times. In making alterations and additions to a building care should be taken to ensure that new works do not alter the contribution of the existing building to the 'rhythm' of a streetscape or to the character of its internal layout.

(ii) *Scale*, ie the dimensions and proportions of buildings and their individual elements, including numbers of storeys, building and ceiling heights and horizontal dimensions and overall bulk. Buildings from different eras are often characterised by distinctive heights, horizontal dimensions and size relationships between different parts or dimensions and new building works should be designed so as to avoid visual incongruities between old and new work.

(iii) *Massing*, ie roof pitches and forms, window/door shapes and dimensions, façade forms and attachments such as verandas, porches and patios). Buildings of particular historical styles have typical shapes, eg an 'interwar' Bungalow typically has a medium pitched roof dominated by a symmetrical front roof gable while a Federation house often has more complex roof and floor plans with windows symmetrically arranged in walls but a front gable that is asymmetrically placed. The integrity of existing facades should be maintained especially in the front of buildings.

So far as possible new building works should seek to be similar in form to their existing neighbours.

15.2.5 Materials and Details

As a rule, if the larger scale elements of new works are designed to be sympathetic, the *details* (eg the forms and types of features such as awnings, chimneys, decorative ornaments, windows and doors and signage) and *materials* and *finishes* (eg the types and textures of building materials, and the colours and finishes used in paints and other materials) will tend to be sympathetic to the existing.

However, when maintenance and repair and minor new works are being carried out it is very easy to overlook the importance of materials and details for the way a built heritage item is viewed. Although it is rarely necessary to make exact copies of existing details the greater the significance of a place the more important it is to use authentic materials and details.

The following is a checklist that applies to both new works and maintenance and repair of existing works:

15.2.6 Walls

(i) *Timber*: Many building elements can be made of timber: window frames, boarding, fascias, brackets, columns, friezes, etc. Many joinery companies have profiles similar to older ones in stock and it is neither necessary nor appropriate to replace timber elements with fibrous concrete replicas. If an exact copy is required, a joiner can easily measure a profile to be run-off. Although timber buildings generally require more maintenance than others modern paints applied
in accordance with manufacturer's instructions have a life of up to 20 years and can help keep maintenance costs down.

(ii) **Bricks:** Brick and mortar colour, the type of joint and the brick laying pattern (called bonding) should be matched in old and new work. It may be possible to replace missing or damaged bricks with second-hand bricks from the same period but closely matching new bricks should be available from at least one manufacturer. Original face brickwork should never be painted or rendered because this will destroy a building's original colours and textures, and rob it of its period character.

(iii) **Cement Render:** Cement render was rarely used in Muswellbrook prior to 1930, except as decoration. Face brick was sometimes decorated with rendered bands or stucco mouldings. Rough-cast render was sometimes used as decoration in the Federation period.

(iv) **Metal:** Even in the Victorian period the use of cast iron on walls was relatively limited. Wrought iron was occasionally used on fences in the late 19th and early 20th centuries.

(v) **Stone** was sometimes used as decoration in base courses, sills, steps and in fences, particularly in the 1920s and 1930s.

15.2.7 **Roofs**

Both roof pitch and roofing materials are important. Roofs in Muswellbrook Shire were most commonly medium pitched and of corrugated iron, especially in the 19th and early 20th centuries. Terra cotta tiles are relatively rare on pre-1920 houses but terra cotta was sometimes used for decoration on chimneys, ridge cappings and rainwater heads. Slate was used on more expensive buildings up until the First World War.

(i) **Modern materials,** such as Colorbond and Zincalume are not recommended for heritage items although metal of corrugated profile may be acceptable if sheeting is of traditional lengths (eg 2.7 metres).

(ii) **If iron roofs are painted the work should be in traditional colours, eg 'Red Oxide'.**

15.2.8 **Windows**

In new work sill and head heights should be matched with existing. Check local examples for framing layouts. Note whether window heads are straight or curved. Is stained or patterned glass used?

15.2.9 **Interiors**

When even minor changes to intact interiors are contemplated, it is recommended that advice be obtained from Council's Heritage Advisor before proceeding. Written consent must be obtained from Council for any internal structural changes in a built heritage item.
15.2.10 Paint

In order to determine the original paint colours layers of paint can be scraped back to see if there was an older, original colour. Scrapings should be taken from areas sheltered from sun and rain and allowance made for fading of the original colour. Most major paint companies offer a full range of traditional colour tints but care should be taken to ensure that their colours are appropriate to the period of an older building. Colour specialist can achieve more accurate colour matching and offer technical advice.

Painting of previously unpainted stone or face brick, and cement rendering of these, should never be done because these are practically irreversible.

15.2.11 The curtilage

Because the area surrounding a building can be integral to retaining and understanding its heritage significance it is good practice to consider also the physical features in these areas, such as trees and shrubs, garden planting, paths, fences, ‘furniture’ and sometimes what can be seen in adjacent allotments and streetscapes. Generally the curtilage of a building in a town will be the allotment(s) on which a heritage item is sited but the area of a curtilage can be larger in rural areas.

Although the advice of a heritage landscape consultant sometimes may be needed a commonsense application of the Burra Charter and Natural Heritage Charter will address most issues.

(i) Fencing - Traditionally fences were of timber, iron and brick. Fences are particularly important for maintaining character of older streets and fences within the curtilages of heritage items should be in traditional styles and materials.

(ii) Gardens - Ideally gardens should be in keeping with the period of the house. Information about typical period gardens is available through Council's Heritage Advisor. Major mature plantings should be retained as these elements alone often provide valuable information about the establishment and development of a property.

15.2.12 Outbuildings

Often the importance of older buildings such as stables and other purpose-built buildings for an understanding of a heritage item can be overlooked and these buildings can be allowed to fall into disrepair, which is simply bad economics. Older outbuildings should be conserved and new outbuildings such as garages and sheds should conform to the general rules for form and materials set out above.

15.2.13 Site Planning

When new building works are being planned the following principles should apply to buildings in heritage conservation areas and on places that have heritage items:

(i) If practicable, keep additions to the rear of existing buildings as far back from the street as possible. Additions are best designed as distinctly separate from the main building.
(ii) Generally, the less new work visible that is from a street the better. The more visible that new work is the more important is it to match new and old forms, scale, colour, texture and materials.

(iii) If there is insufficient space for a rear extension, additions may be permitted at the side or front but not usually if the building is a heritage item. New features should not be introduced on the front facades of important buildings; new work on these, however sympathetic, should be set back.

(iv) Adding storeys to existing buildings is to be discouraged but where sites are limited severely restricted a dormer or similar addition can be possible in residential buildings.

(v) Where a site permits only very minor additions ways of making better use of available space should be sought instead of additions. Re-building at the rear, or internal structural changes may achieve this without endangering heritage values.

(vi) In the grounds new landscape elements should reflect establish elements such as gardens and plant types where possible.

(vii) In making provision for car parking the following order of preference should be observed:

- at the rear, with access from a rear lane
- at the rear, with access from the front.
- at the side, well setback
- uncovered paved area at the front
- on the street

In residential buildings front garages are strongly discouraged, no matter how sympathetic. They generally obscure views of the main building and break up the established setback line in the street.

15.2.14 Subdivision and Infill Development

New developments adjacent to heritage items and in heritage conservation areas, including sheds, garages and carports, should be consistent in form and scale with adjacent buildings. Their detailing, materials, colours and finishes should be visually sympathetic to these buildings. Landscaping including fences.

15.3 DEMOLITION

15.3.1 Council Consent is required

Demolition, whether involving destruction or removal, of any building, work, relic or tree in a place that has been listed as a containing a heritage item will only be considered if there are no feasible or prudent alternatives and there are firm plans for redevelopment.

This applies to partial demolitions and may affect applications for alterations and
additions.

In the event of an assessment of heritage impact concluding that there is no alternative to the demolition (etc) Council will generally require that any building(s) to be demolished are documented before and during demolition by a suitably qualified heritage consultant (such as a conservation architect), and that the place on which the demolition is to take place is examined before and during demolition by a suitably qualified archaeologist or other heritage consultant.

This is to ensure that, while the physical features of a heritage item may be destroyed, forever, a record of them will be kept for posterity. This record should extend to the area surrounding a thing to be demolished, which is integral to understanding and for interpreting the heritage significance of that thing. This area, known as ‘curtilage’, will generally be taken to be the allotment(s) on which the building(s), works, relics or trees are to be demolished. The reports prepared in fulfillment of Council’s requirement will be archived by the Muswellbrook Local and Family History Society after consideration by Council.

15.3.2 What is involved in archival documentation

Documentation of buildings will involve inspection of the buildings, including their roof cavities and under-floor areas, for information about past and present construction, materials and decoration, and for information which might throw light on dates of construction and any former uses of parts of the buildings. This should lead to a report which includes scaled plans and elevations, and photographs or videos, annotated to show physical features which contribute to heritage significance and which are discussed in the text report. The report should cover matters such as the evolution of the building(s); the forms, structures, materials and finishes (e.g., paints) used in footings, walls, ceilings and roofs; and details, such as mouldings, joinery, decorative features and fittings (both interiors and exteriors should be documented). Some of this information may not be revealed until demolition is in progress. The report should be prepared by a qualified conservation architect or another heritage consultant with suitable experience.

Examination of the place will generally involve an archaeological reconnaissance for evidence of past and present buildings, paths, garden beds, fences subsurface land under buildings and other physical features of the plan and elsewhere. This should be done by a systematic inspection of using passive or electronic probes at appropriate times before and/or during demolition. This will not require excavation permits but, should the reconnaissance indicate needs for further investigation, an archaeological excavation might become necessary. The report should be prepared by a qualified archaeologist or other heritage consultant with suitable experience.

15.3.3 The Heritage Office must be notified

It should be noted that all development applications which involve heritage items listed in schedule 5 of which has state heritage significance, whether or not they have been assessed as being of state significance and/or that are recorded in the State Heritage Register, must be notified to the NSW Heritage Office by Council. The Heritage Office may impose special requirements in relation to any approval to demolish on a place the LEP, including as to documentation.
15.3.4 What to do with artefacts

Any artefacts (including building materials) that may be recovered during the demolition should be recorded and described in the reports and their conservation should be discussed with Council prior to their disposal.

SUMMARY

Heritage conservation is not intended to fix places in the past. People do not live in museums and change may be legitimate so long as it respects what is already in a place.

Where maintenance and repairs are being considered it is important to maintain the physical character of heritage conservation areas and places that contain heritage items.

Where alterations, additions and new development are being considered that may affect heritage conservation areas or heritage items it is important not to introduce elements which are out of character with or which draw attention from the things which make for the heritage significance of the place.

Sometimes (eg when a small addition is being made to an older building), it will be appropriate for new development to imitate stylistic features from the past. Generally (eg where earlier-era elements such bull-nosed verandas or art deco parapets are to be attached to a modern building), this will not be appropriate.

What should be aimed for are similarities between existing and new developments in forms, but individual expressions in the lesser elements.
15.4 DEVELOPMENT IN CONSERVATION AREAS

The conservation areas within the Muswellbrook Shire are identified in Schedule 5 of the Muswellbrook LEP. Their location is identified on the maps that accompany the LEP.

The following statements are derived from streetscape studies undertaken by Council, to ensure that development in these conservation areas reflects the significance and character of the area concerned.

Council will not grant consent to development that would result in an outcome that is inconsistent with the significance and description of the conservation areas as outlined below.

15.4.1 DENMAN HERITAGE CONSERVATION AREA

The Denman Heritage Conservation Area comprises effectively the three blocks of the business district along Ogilvie Street

Statement of significance

The commercial district of Denman is significant for the Upper Hunter region because Denman has been the service centre for the Sandy Hollow-Jerry Plains areas for 150 years and its business district retains much of the physical character of a small town centre from the period before the first world wars. This character is dominated by small-scale, often detached, commercial and civic buildings and by modest interwar houses which are interspersed amongst commercial buildings. All the buildings are single storeyed and modest in bulk, other than the two hotels at the corner of Palace and Ogilvie Streets. Special features of the area are the painted and traditionally lettered signage and the unrolled iron skillion awnings supported by verandah posts which remain on some present and former commercial premises. It is remarkable that the physical character of the streetscape has remained substantially unaltered since the 1920s despite wars, the spread of grapes and of coal mining and the decline of dairy farming.

Generalised description

Buildings are generally detached (or, at least visibly distinguished from their neighbours) but the overall impression is one of continuity. Apart from the two hotels, whose original single stories have been incorporated into much larger two storied buildings, there are no multi-storied buildings and few of any great bulk (other than the bus shelter). The commercial buildings are low, narrow, built towards their street frontages and seldom extending far back into their allotments; detached dwellings are modest in scale and built further back from street frontages. Although there are older and some more recent buildings the area is stylistically set in the period around the first world war. This means, characteristically, medium pitched galvanised iron roofs, walls which are clad mostly in timber weatherboards (although some have rendered street facades) and early (though usually not original) frontages on shop buildings. The integrity of this character is becoming greatly compromised by intrusive modern alterations and new developments which use zincalume, fibro and colorbond materials, often with aluminium windows)
Many of the older commercial buildings have simple timber or rendered parapets on their upper walls and flat unrolled (not bullnosed) awnings of corrugated galvanised iron. The survival of ‘traditional’ signage and of ‘traditional’ awnings on past and present commercial buildings are of particular note. Most signage is painted and on facades or on/under awnings (and illuminated signage is limited, though intrusive). The awnings of about eight commercial premises remain still suspended on posts rather than being cantilevered. Public and private land along street frontages is generally minimally improved, which is in character with the age and styles of the buildings. Front fencing is often absent or minimal, or has been replaced by low privet hedges. Side fencing is generally of wooden palings but there is a great deal of intrusive colorbond and Zincalume.

15.4.2 MUSWELLBROOK CENTRAL BUSINESS DISTRICT HERITAGE CONSERVATION AREA

This heritage conservation area embraces all the allotments fronting on to Bridge and Victoria Streets from Carl Street and the Railway overbridge to Wilkins Street, together with allotments further east and west to the railway which are in the vicinity of these allotments. Most of the older buildings lie in an older commercial precinct between William and Hill Streets. Precincts north of Hill Street and east of William Street contain mixtures of older and more recent buildings including some originally built for residential purposes.

Statement of Significance

This area is significant for the Upper Hunter region as a physical expression of 150 years of commercial activity in the region. It is highly visible from both a major regional highway and the northern railway as well as from outside the area. While the earliest built features of the streetscape have disappeared, existing buildings provide a tangible link to the commercial history of Muswellbrook, particularly to the interwar period of sustained growth. A variety of building styles is represented but, because most buildings date from the first half of this century, their form and materials tend to be in harmony. Many of the more modern buildings are modest rather than brash, and respect the earlier era character of the precinct. Street and private plantings tend to modulate the intrusive effect of other ‘modern’ buildings.

Generalised description

Long, narrow allotments mean that building facades on their street frontages are generally narrow and high. The older commercial buildings in the central precinct between William and Hill Streets tend to occupy the full width of their allotments and, being built on or forward to their street frontages, present a more-or-less continuous wall of facades that is broken only by lanes and alleys giving access to the rear of buildings. The older buildings to the north and east, particularly residential buildings now used or likely to be used for commercial purposes, have more discontinuous facades.

Most buildings are single storied but there is a very visible representation of two and three storied buildings and of single storied buildings with substantial parapets. Most buildings are modest in scale and, though some more modern buildings are bulky with large expanses of walls and window, the detailing of most of the ‘modern’ buildings reduces their intrusive impact on the streetscape. Some modern
developments have compromised the visual integrity of both the northern and easterly precincts.

The older buildings include examples from the 1840s to the 1960s but are predominantly inter-war. Walls are generally of masonry, mostly face brick and rendered brick, with parapets which often include their original decorative brick and plaster work, gables fronting to the street in some residential buildings and detailed lower walls. Rendered surfaces are often painted in colours appropriate to the ages of their buildings. Upper floor windows are mostly vertical in alignments (many are four paned sash windows) and many shopfronts retain their original window and door openings. Some older features of shopfronts, including mullions, glazing and tiles have escaped 'modernisation'. Roofs are not visible from the street but are generally hip roofs of galvanised iron (generally unpainted and often rusting) in commercial buildings and gable roofs in residential buildings. Many rear parts (which are highly visible from the south, particularly from car parks) have been extended in a manner unsympathetic to their primary buildings and many rear parts need cosmetic maintenance.

Many building (especially in the eastern part) have skillion (unrolled) galvanised iron awnings projecting over pavements, now cantilevered but formerly supported by posts. Most of the signage on and above these awnings is painted and in character with the buildings, though some inappropriate large illuminated signs project out above awnings and there is much unsympathetic illuminated under-awning signage. Some street signage is obscured by street plantings. Because older buildings are typically built forward to their street frontages there is little private open space in front of most buildings, but some more recent buildings have been set back to provide for inappropriate decorative areas or car parking. Rear yards are generally unlandscaped except for hard surfaces for car parking and access. Pavements, recent street plantings and street furniture (some seats and garbage bins) have not been carried out to any comprehensive plan and do little to offset the negative impacts of the highway; a comprehensive plan for these could help to the visual unification of the area.

15.4.3 MUSWELLBROOK CENTRAL RESIDENTIAL PRECINCT HERITAGE CONSERVATION AREA

This heritage conservation area includes the blocks to the east of the Muswellbrook Central Business District Heritage Conservation Areas, plus half a block of allotments north of Cook Street. It includes the very prominent escarpment to the south, a ‘core’ area which is consistently of interwar and earlier housing and jacaranda-lined streets west of Carl Street, and two areas of more modest housing to the east (including an area of older housing south to Victoria Street).

Statement of Significance

This mainly residential area is significant for Muswellbrook as an urban landscape which, though surveyed early, was largely developed in the period after sewerage and between the wars, and it reflects the history of Muswellbrook's urban development. It is built around a traditional rectangular grid of thirty metre wide road reservations but most allotments are 'quarter acre' allotments from early twentieth century subdivisions. Although there area some nineteenth century buildings and some modern infill most of the residential buildings date from the first half of the
twentieth century when sewerage enabled higher residential densities and residential demand drove a relatively rapid conversion of rural to urban land. It is physical character of this detached housing with often mature domestic gardens and streets planted with mature jacarandas which needs to be conserved. The mature jacarandas on grass verges, with an absence of overhead wires, provide important unifying features.

Generalised description

This is an area of detached dwellings on medium to large suburban allotments, which are generally built towards their street frontages. There are a few older dwellings, mainly nearer Bridge and Victoria Streets, a scatter of larger dwellings throughout the area and some (often unsympathetic) ‘modern’ infill housing but the predominant built character is of ‘modest’, single storied, detached houses built in styles which are variations on the 'bungalow' and other post-federation styles of before the 1940s. These are characterised by hip roofs of medium pitch with high ridges in galvanised iron (though some houses have tile roofs and some roofs are gabled). Chimneys tend to be to the side or rear of buildings. Walls are generally of weatherboard, painted in subdued colours, though some houses are built with masonry walls. Windows are double hung sash windows or casement windows, and are on side as well as front and rear elevations. Floor plans are varied but open verandahs with balustrades projecting towards the street are general (some of these have been enclosed). Dwellings in the ‘core’ precinct tend to have more decorative detail than elsewhere. Minor additions are common, often with inappropriate fibro cladding, aluminium windows and iron skillion roofs, though these are usually to the side or rear of buildings.

Most allotments in the ‘core’ precinct are wide enough to allow gardens at the side as well as front and back of houses. Gardens generally are generally limited in area, typically with mature, low perennial shrubs and few tall trees. The wide grassed and concrete-kerbed verges of many streets contain mature jacaranda street trees which serve as a unifying feature for the area and one which gives a sense of enclosure except on the southern boundary. The absence of overhead wiring is important in the visible landscape. Back yards are generous, except in the older western and southern parts, and generally underdeveloped. Fences are generally of timber (though there are intrusive colorbond fences between allotments) and picket fences are common on street frontages.
SECTION 16 – CAR PARKING AND ACCESS

PARKING AND ACCESS

16.1 INTRODUCTION
This chapter requires applicants to consider the impact of new development on the existing road network and to make adequate provision for off-street car parking to meet the needs of the general public, employees and service vehicles.

16.1.1 Application
All land to which this DCP applies and to all forms of development.

16.1.2 Purpose
To ensure that adequate off street car parking is provided within Muswellbrook Shire to meet the demand for such parking created by development.

16.1.3 Aims and Objectives

Aims

a) to provide a guide for developers of Council's minimum requirements for off street vehicular parking.
b) to ensure that adequate off-street vehicular parking is provided for traffic generating developments.
c) to ensure adequate car parking facilities are provided in association with developments;
b) to ensure each development proposal is assessed consistently and equitably in relation to the provision of off-street vehicular parking;
c) to ensure vehicular parking areas are designed in such a manner as to be functional, aesthetically pleasing in terms of landscaping, and safe for motorists and pedestrians; and
d) to ensure all vehicles entering or leaving properties are driven in a forward direction.

16.2 RESIDENTIAL DEVELOPMENT

Objectives

a) To ensure adequate on site parking is provided to service residential developments
b) To ensure that activities relating to car parking provision are undertaken to an acceptable standard to ensure residential amenity.

Controls

(i) Car parking is provided on site in accordance with the requirements of 16.6 of this section of the DCP.
(ii) The location and construction of car parking complies with Section 6 of this DCP.
(iii) On site parking facilities are designed and constructed to comply with the provisions of AS2890.1.
16.3 NON-RESIDENTIAL DEVELOPMENT

Objectives

a) To ensure adequate provision of off-street parking to maintain the existing levels of service and safety of the road network.
b) To ensure a consistent and equitable basis for the assessment of parking provisions.
c) To ensure the design of parking areas, loading bays and access driveways which function efficiently.
d) To ensure that parking areas are visually attractive and constructed, designed and situated so as to encourage their safe use.
e) To ensure that all traffic generating developments are generally in accordance with those sections of the Traffic Authority of NSW Policies and Guidelines, for traffic generating developments as adopted by this Code.

Controls

(i) Car parking is provided on site in accordance with the requirements of 16.6 of this section of the DCP.
(ii) On site parking facilities are designed and constructed to comply with the provisions of AS2890.1/AS2890.2.
(iii) To ensure that traffic movements into and out of a site are made, whenever possible, in a forward direction. If a site layout does not permit forward movement for delivery vehicles, then the developer, owner or occupier must provide a risk management plan, to the satisfaction of Council, detailing the measures required to ensure that traffic movements are carried out in an adequate and safe manner.
16.4 DESIGN GUIDELINES FOR OFF-STREET VEHICULAR PARKING AREAS

Off-street car park design mainly involves engineering and landscape disciplines. Engineering principles are important and ensure that a facility will function efficiently in regard to surface durability, traffic movement, access, drainage and lighting requirements.

Landscape principles are applied to make the facility more attractive for the users (both drivers and pedestrians) by providing trees for shelter, pedestrian walkways, and screening to boundaries to integrate the facility into its surrounds.

Generally car parks should be designed to meet the requirements of AS 2890.1 Off-Street Car Parking and AS 2890.2 Commercial Vehicle Facilities for design and layout and Council’s “Engineering Requirements for Development” for construction.

16.4.1 Access to the Site

Objectives

a) To ensure that access to sites operate in a safe and efficient manner.

Controls

(i) all works required to service the development are to be designed and constructed in accordance with the relevant provisions of AS2890
(ii) any works on public land or in the public road reserve that are to revert to the care and control of Council are to be designed and constructed in accordance with the relevant provisions of AUSPEC.
(iii) A vehicular driveway must:
- be located no closer than 1.5 metres from the boundary of the site and no closer than 6 metres to a corner boundary.
- not be located within 12 metres on the approaches to a “stop” or “give way” sign.
- cross the footpath or footway at right angles to the centreline of the road.
- be located so that any vehicle entering or leaving the site can be readily seen by the driver of an approaching vehicle in the street;
- be clear of obstructions which may prevent drivers having a timely view of pedestrians;
- be properly signposted by the use of “in” or “entrance” and “out” or “exit” signs, where appropriate; and
- be designed and constructed to suit design traffic loads.

The Roads and Traffic Authority has adopted seven types of access driveways – Type 1 to 5 for cars (or light vehicles) and types 6 and 7 for heavy vehicles. Table 1 shows entry and exit driveway widths and separation between the two where applicable. Table 2 shows types of driveways to serve certain numbers of parking spaces.
TABLE 1: Recommended Driveway Types

<table>
<thead>
<tr>
<th>Type</th>
<th>Entry Width (Metres)</th>
<th>Exit Width (Metres)</th>
<th>Minimum Separation of Driveways (Metres)</th>
<th>Splay at Kerbline (Metres)</th>
<th>Kerb Return Turnout Radius (Metres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3-6</td>
<td>Combined¹</td>
<td>N/A</td>
<td>0.5</td>
<td>-</td>
</tr>
<tr>
<td>2</td>
<td>6-9</td>
<td>Combined¹</td>
<td>N/A</td>
<td>1</td>
<td>-</td>
</tr>
<tr>
<td>3</td>
<td>6</td>
<td>4-6</td>
<td>1-3</td>
<td>1</td>
<td>2-9</td>
</tr>
<tr>
<td>4</td>
<td>6-8</td>
<td>6-8</td>
<td>1-3</td>
<td>1</td>
<td>2-9</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>Direct feed from a controlled intersection via a dedicated public roadway via an intersection controlled by STOP and GIVE WAY signs, traffic signals or a round about.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>8-10</td>
<td>8-10</td>
<td>3</td>
<td>1</td>
<td>2-9</td>
</tr>
<tr>
<td>7</td>
<td>10-12</td>
<td>10-12</td>
<td>3</td>
<td>1</td>
<td>2-9</td>
</tr>
</tbody>
</table>

¹ Driveways are normally combined, but if separate, both entry and exit widths should be a minimum of 2.9 metres.

Australian Standard 2890.1-1993 – Parking Facilities

TABLE 2
Selection of Driveway Type Based on Parking Spaces

<table>
<thead>
<tr>
<th>Road Frontage</th>
<th>Number of Car Parking Spaces Served by the Driveway</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Less than 25</td>
</tr>
<tr>
<td>Major</td>
<td>1-2</td>
</tr>
<tr>
<td>Minor</td>
<td>1</td>
</tr>
</tbody>
</table>

SOURCE: RTA of NSW: Guide to Traffic Generating Developments
Australian Standard 2890.1-1993 – Parking Facilities

16.4.2 Car Park Design

Objectives

b) To ensure that the design of on site car parking is provided to an acceptable standard.
c) To ensure the convenient use and operation of car parking facilities.
Controls

(i) The minimum dimensions of each off street parking space and the distance separating parking spaces shall be in accordance with AS2890.1.
(ii) Adequate on site manoeuvring and circulating areas shall be provided to ensure that all vehicles enter and leave the site do so in a forward direction.
(iii) Parking spaces for visitors and customers should be provided where they are clearly visible from the street so their use is encouraged.
(iv) Parking spaces for employees and for longer duration parking may be located more remotely from the street.
(v) All signage (whether viewed from internal areas on the site or form external areas) are to be provided in accordance with the provisions of AS2890.1, AS1742 (all relevant parts) and any relevant guidelines endorsed by the RTA.
(vi) The location of the parking area on the site should be determined having regard to:
   (a) site conditions such as slope and drainage;
   (b) visual amenity;
   (c) the location of the building; and
   (d) the proximity to any neighbouring residential development.

16.4.3 Parking for People with Disabilities
Special parking spaces for people with disabilities are to be provided at the rate of two percent (2%) of the overall spaces provided for a retail/business/industry development. These spaces must be clearly signposted and marked and have a minimum width of 3.2 metres, and comply with the provisions of AS2890.1.

16.4.4 Loading/Unloading Facilities

Objectives

a) To ensure that loading and unloading can be undertaken on site.
b) To ensure that loading and unloading operations do not adversely interfere with vehicle and pedestrian movements.

Controls

(i) In the case of all commercial, retail and industrial development, adequate provision must be made on the development site for the loading and unloading of service vehicles.
(ii) The number and dimensions of loading bays required in any particular case will be assessed by Council having regard to the nature and scale of the proposed development, the estimated frequency of deliveries and the type of delivery vehicle likely to be involved. Details regarding the estimated size and frequency of goods delivery vehicles visiting the premises are required to be submitted with the development application.
(iii) Loading/unloading bays must be designed to ensure that vehicles can manoeuvre into and out of all loading/unloading areas without conflicting with the movement of vehicle and pedestrian traffic on site or in the adjacent streets.
(iv) The loading/unloading areas is to be designed to accommodate the turning path of appropriate service vehicles detailed in Table 3.
(v) The loading/unloading areas must be designed to ensure that vehicles stand entirely within the site during loading and unloading operations.

**TABLE 3**
Service Vehicle Dimensions (Metres)

<table>
<thead>
<tr>
<th>Vehicle Type</th>
<th>Length</th>
<th>Width</th>
<th>Max Height</th>
<th>Turning Circle (kerb to kerb)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Station Wagon</td>
<td>4.7</td>
<td>1.9</td>
<td>1.4</td>
<td>11.0</td>
</tr>
<tr>
<td>Utility</td>
<td>4.7</td>
<td>1.9</td>
<td>1.4</td>
<td>11.0</td>
</tr>
<tr>
<td>Van</td>
<td>5.4</td>
<td>2.1</td>
<td>2.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Small Rigid Truck</td>
<td>6.6</td>
<td>2.1</td>
<td>4.3</td>
<td>14.4</td>
</tr>
<tr>
<td>Large Rigid Truck</td>
<td>11.0</td>
<td>2.5</td>
<td>4.3</td>
<td>21.7</td>
</tr>
<tr>
<td>Large Articulated Truck</td>
<td>17.5</td>
<td>2.5</td>
<td>4.3</td>
<td>16.2</td>
</tr>
</tbody>
</table>

Note: For courier vehicles, standard car parking space dimensions are usually satisfactory.

Source: RTA of New South Wales: *Guide to Traffic Generating Development*

**16.4.5 Internal Roads**

Objectives

a) To ensure that internal roads are sufficient to cater for expected vehicle movements.

Controls

(i) For internal roads between the driveway and the parking area the recommended minimum carriageway width depends on the number of parking spaces and service bays. These minimum widths are provided in Table 4.

**TABLE 4**
Recommended Minimum Circulation Roadway Width – Two Way Traffic

<table>
<thead>
<tr>
<th>Number of Parking Spaces/Service Bays</th>
<th>Width</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-24 spaces and length not exceeding 40m</td>
<td>3.5 m wide</td>
</tr>
<tr>
<td>25-50 spaces OR 1-24 spaces OR 1-24 spaces plus service bay(s)</td>
<td>5.0 m wide</td>
</tr>
<tr>
<td>Over 50 spaces, OR Over 24 spaces PLUS Service bay(s)</td>
<td>6.0 – 6.5 m wide</td>
</tr>
</tbody>
</table>
16.4.6 Construction Materials

Objectives

a) To ensure that construction materials used are sufficient to withstand intended loads and use.

Controls

(i) All parking areas and access ways shall be designed and constructed in accordance with AS2890.1 and AS2890.2.
(ii) In choosing the most suitable pavement type the following factors should be considered:
   (a) anticipated vehicle loads;
   (b) run-off gradients and drainage requirements; and
   (c) construction constraints.

16.4.7 Landscaping

Objectives

a) To ensure that the visual impacts of car parking are minimised.

Controls

(i) A minimum of 10% of the total area of the car park shall be appropriately landscaped.
(ii) Long stretches of parking bays are to be dispersed with screen planting. A good rule of thumb would be to have no more than 10 parking bays before breaking with planting.
(iii) Plants should be selected and located to avoid maintenance problems such as interference with overhead wires, underground conduits, damage to paved areas by root systems, and leaf and branch litter.
(iv) Trees with large surface roots, excessive girth, brittle limbs, fruits which drop and trees which attract large numbers of birds should be avoided in parking areas.
16.5 QUALIFICATIONS AND EXCEPTIONS TO PARKING STANDARDS

16.5.1 Calculation of Numbers
Where the calculation of parking spaces results is a fraction of a space, the total number of parking spaces shall be the next highest whole number.

16.5.2 Extensions/Additions to Existing Development
Where existing premises are being extended to create additional gross floor area, the additional parking requirement shall be calculated in accordance with the parking standards contained in this code on the basis of the increased floor space.

16.5.3 Small Scale Additions
Council may, at its discretion, waive the car parking requirements for small scale additions where:

(a) the proposed extension is of a minor nature requiring the provision of not more than one additional car parking space; or
(b) the extension is not directly related to the parking generation potential of the development.

16.5.4 Low Intensity Uses
Where the proponent of a development is able to demonstrate that it is unnecessary to provide the total number of parking spaces on site as required by this Plan, a lesser provision may be accepted by Council. In such circumstances suitable justification and a detailed analysis should be submitted with the development application.

16.5.5 Change of Use
Parking requirements for the proposed use shall be in accordance with the rates prescribed in the attached schedule. Any non-compliance will need to be accompanied by justification and may not be supported by Council if it is not satisfied that adequate parking will be provided.

16.5.6 Mixed Use Development
In the case of a combination of land uses on the site, the parking requirement for each separate use shall be calculated and then added together to provide the total parking requirement. Any departure from this method will only be considered by Council where it can be demonstrated that the peak demand for each land use component of the development is staggered.

16.5.7 Undefined Development
Where a proposed development does not fall within any of the land use categories identified in the Car Parking Standards section of this Plan, Council shall calculate the on site parking requirements having regard to the experience of similar existing development and an assessment of the likely traffic generating potential of the proposed development.

16.5.8 Major Traffic Generating Developments
Parking requirements for major new developments will be assessed on merit, with particular reference to:

(a) the likely demand for off street parking generated by the development;
(b) the mix of uses and their parking requirements;
(c) the availability of public transport to service the development;
(d) the probable mode of transport to be used by employees and/or customers;
(e) the likely peak usage times of the proposed development; and
(f) the existing traffic volumes on the surrounding street network including, where relevant, the potential traffic volumes.

Where it is considered that a traffic generating development may have a major impact on traffic movement within a given locality, Council will require the applicant to submit a traffic and parking study prepared by a suitably qualified consultant prior to determining the application. Early consultation with Council is recommended in such cases.

16.5.9 Contributions
Council’s Section 94 Plan may make provision for a contribution to be payable where there is a shortfall of parking spaces that can be provided on site to service a development as required by this section of the DCP.

16.5.10 Referrals
In accordance with State Environmental Planning Policy No. 11 (SEPP No. 11) Council is required to refer proposals for major traffic generating developments to the New South Wales Roads and Traffic Authority or for consideration by Council’s Traffic/Development Committees.
# 16.6 CAR PARKING SCHEDULE FOR SPECIFIC LAND USES

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Parking Requirement</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Community</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Child Care Centre</td>
<td>1 space per employee, <strong>PLUS</strong> 1 space per 15 children enrolled (if provision of 3 set down/pick up areas) or 1 per 10 children.</td>
<td>Council may give consideration to varying the specified parking requirement, depending upon the nature and type of street frontage available for the setting down and picking up of children or if home based child care is proposed.</td>
</tr>
<tr>
<td>Community facility</td>
<td>1 space per 20 m² of gross floor area.</td>
<td></td>
</tr>
<tr>
<td><strong>Educational Establishment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tertiary</td>
<td>1 space per 2 employees, <strong>PLUS</strong> 1 space per 5 students</td>
<td></td>
</tr>
<tr>
<td>Secondary</td>
<td>1 space per 2 employees, <strong>PLUS</strong> 1 space per 10 students</td>
<td></td>
</tr>
<tr>
<td>Primary</td>
<td>1 space per 2 employees, <strong>PLUS</strong> 1 space per 12 students</td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>Car parking will be assessed in accordance with RTA Guidelines</td>
<td></td>
</tr>
<tr>
<td>Information or education facility</td>
<td>1 space for every employee or staff member <strong>PLUS</strong> 1 space for every 30 students over 17 yrs for High Schools and 1 space for every 5 students for Higher Education Establishments <strong>PLUS</strong> provision for a drop off / pick up area</td>
<td>The parking requirements for each school site may vary. In general a detailed traffic and parking study should be submitted with the application. It is recommended that a school traffic management plan be prepared annually and issued to parents at the start of each school year. Where required by Council, provision shall be made for the access and parking of buses and pick up – drop off areas, which may only need to operate during certain hours.</td>
</tr>
<tr>
<td>Place of worship</td>
<td>1 space per 10 fixed seats, <strong>OR</strong> 1 space per 10 m² of gross floor area if seats not affixed, <strong>WHICHEVER IS THE GREATER</strong></td>
<td></td>
</tr>
<tr>
<td>Public administration building</td>
<td>1 space per 40 m² of gross floor area.</td>
<td></td>
</tr>
<tr>
<td><strong>Home activities</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Home based child care or family day care home</td>
<td>Sufficient space on site for drop off/pick up for one vehicle <strong>PLUS</strong>  The street must have sufficient parking capacity during peak periods to accommodate pick up/drop off, and such areas must be within 50m walking distance from entry.</td>
<td>Car parking for residents in accordance with this table cannot be counted as parking spaces for this home based use.</td>
</tr>
</tbody>
</table>
## Car parking and Access

### Land Use

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Parking Requirement</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Business / Home Industry</td>
<td>1 space for each employee other than residents of the dwelling.</td>
<td></td>
</tr>
<tr>
<td><strong>Industry and storage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industry (General &amp; Light)</td>
<td>1 space per 75 m² of gross floor area</td>
<td></td>
</tr>
<tr>
<td>Vehicle Repair Station</td>
<td>1 space per 40 m² of gross floor area, OR 3 spaces per workshop bay, WHICHEVER IS GREATER.</td>
<td></td>
</tr>
<tr>
<td>Warehouse or distribution centre</td>
<td>1 space per 300 m² of gross floor area</td>
<td></td>
</tr>
<tr>
<td><strong>Recreation and Entertainment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Entertainment facility</td>
<td>1 space per 10 fixed seats, OR 1 space per 10 m² of gross floor area if seats not affixed, WHICHEVER IS THE GREATER</td>
<td></td>
</tr>
<tr>
<td>Recreation Facility (indoor)</td>
<td>1 space per 25 m² of gross floor area, PLUS 1 space per 2 employees.</td>
<td></td>
</tr>
<tr>
<td>Recreation facility (outdoor)</td>
<td>To be assessed on a site by site based on the traffic generating capacity and design of the proposed area. Submit parking study to substantiate proposed car parking provisions.</td>
<td></td>
</tr>
<tr>
<td>Recreation facility (major)</td>
<td>To be assessed on a site by site based on the traffic generating capacity and design of the proposed area. Submit parking study to substantiate proposed car parking provisions.</td>
<td></td>
</tr>
<tr>
<td>Recreation area</td>
<td>To be assessed on a site by site based on the traffic generating capacity and design of the proposed area.</td>
<td></td>
</tr>
<tr>
<td>Squash Courts, Tennis Courts</td>
<td>3 spaces per court, PLUS 1 space per 3 employees or part thereof.</td>
<td></td>
</tr>
<tr>
<td>Bowling Alleys</td>
<td>3 spaces per lane, PLUS 1 space per 3 employees or part thereof.</td>
<td></td>
</tr>
<tr>
<td>Bowling Greens</td>
<td>30 spaces for first green and 15 spaces for each additional green.</td>
<td></td>
</tr>
<tr>
<td>Conference Facilities</td>
<td>1 space per 5 fixed seats OR 1 space per 15m² of gross floor area is seats no affixed</td>
<td>Council may consider a reduced parking rate depending on the nature of use the facility is put to (eg: if used for student conferences and transport to and from the site is by bus).</td>
</tr>
<tr>
<td><strong>Residential Accommodation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boarding Houses, Hostels, Private Hostels etc</td>
<td>1 space per 3 beds or 1 per bedroom, PLUS 1 visitor space per 5 beds or 1 visitor space per 5 rooms PLUS (whichever is the</td>
<td></td>
</tr>
</tbody>
</table>
## Muswellbrook Shire Development Control Plan
### Section 16
### Car parking and Access

<table>
<thead>
<tr>
<th>Land Use</th>
<th>Parking Requirement</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Caravan park (including camp site, moveable dwelling or manufactured home estate)</td>
<td>1 space per site, PLUS 1 space per 10 sites for visitor parking.</td>
<td>The visitor parking area should be appropriately located and sign posted. See also SEPP 21 &amp; 36</td>
</tr>
<tr>
<td>Dual occupancy</td>
<td>1 space per dwelling if the GFA of the dwelling is less than 125m² OR 2 spaces per dwelling if the GFA of the dwelling is 125m² or more</td>
<td>The space shall be located in accordance with Section 6 of this DCP.</td>
</tr>
<tr>
<td>Dwelling house</td>
<td>1 space per dwelling if the GFA of the dwelling is less than 125m² OR 2 spaces per dwelling if the GFA of the dwelling is 125m² or more</td>
<td>The space shall be located in accordance with Section 6 of this DCP.</td>
</tr>
<tr>
<td>Group home</td>
<td>1 space per employee</td>
<td></td>
</tr>
<tr>
<td>Hostel</td>
<td>1 space per 3 beds plus 1 per 5 beds visitor space OR 1 per room plus 1 per 5 rooms visitor space (whichever is the greater) PLUS 1 space per 3 employees</td>
<td>Spaces per bedroom may be reduced if in close proximity to public transport interchange or targeted market. The visitor parking area should be appropriately located and sign posted.</td>
</tr>
<tr>
<td>Multi dwelling housing (including residential flat buildings)</td>
<td>Cars</td>
<td>Applications to Council must demonstrate due consideration of car parking arrangements, including availability of adjacent parking, access to public transport and/or historical lack of physical access to parking.</td>
</tr>
<tr>
<td>Shop top housing</td>
<td>1 space per unit</td>
<td></td>
</tr>
<tr>
<td>Residential Care Facility:</td>
<td>0.5 spaces per bedroom</td>
<td>Council may consider varying these requirements based upon a plan of management for the facility detailing proximity and availability of services, and regular community transport services to be provided for</td>
</tr>
<tr>
<td>(a) Self-contained Units (private developments)</td>
<td>1 space per 5 dwellings</td>
<td></td>
</tr>
<tr>
<td>(b) Self-contained units (public developments)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land Use</td>
<td>Parking Requirement</td>
<td>Comments</td>
</tr>
<tr>
<td>----------------------------------------------</td>
<td>--------------------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>(c) Hostel, Nursing and Convalescent Home</td>
<td>1 space per 10 beds, <strong>PLUS</strong> 1 space per 2 employees, <strong>PLUS</strong> 1 space per ambulance.</td>
<td>residents.</td>
</tr>
<tr>
<td>Retail and Business</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bulky Goods Premises</td>
<td>1 space per 45 m² of gross floor area.</td>
<td></td>
</tr>
<tr>
<td>Business Premises (office premises, financial institutions, real estate agents etc)</td>
<td>1 space per 35 m² of gross floor area.</td>
<td>Provision should be made for the on site loading/unloading of service vehicles as appropriate.</td>
</tr>
<tr>
<td>Cellar Door premises</td>
<td>1 space per 7m² of gross floor area accessible to public</td>
<td></td>
</tr>
<tr>
<td>Food and drink premises</td>
<td>1 space per 6.5m² service area <strong>PLUS</strong> 1 space per 3 employees</td>
<td>A food outlet which provides no seating will also be assessed as a &quot;shop&quot;.</td>
</tr>
<tr>
<td>Function centre</td>
<td>1 space per 10 fixed seats, <strong>OR</strong> 1 space per 10 m² of gross floor area if seats not affixed, <strong>WHICHEVER IS THE GREATER</strong></td>
<td></td>
</tr>
<tr>
<td>Funeral Home or Chapel (including mortuary)</td>
<td>1 space per employee <strong>PLUS</strong> 1 space per 10 m² of gross floor used or accessed by the public</td>
<td>If it is shown that not all surgeries operate at the same time, Council may consider reducing the parking requirement for patients.</td>
</tr>
<tr>
<td>Health Consulting Room</td>
<td>1 space per practitioner, <strong>PLUS</strong> 1 space per employee, <strong>PLUS</strong> 2 spaces for patients of each practitioner.</td>
<td></td>
</tr>
<tr>
<td>Kiosk</td>
<td>1 space per 25m² GFA</td>
<td>Provision to be made for car / trailer combinations at strategic locations</td>
</tr>
<tr>
<td>Landscape and garden supplies</td>
<td>1 space per 130 m² of gross display area.</td>
<td></td>
</tr>
<tr>
<td>Market</td>
<td>Minimum of two spaces per stall</td>
<td>Separate provision should be made for stall holder’s vehicles. Where a market is located within an existing shopping centre, consideration will be given to multiple usage requirements and a lower parking provision may be acceptable.</td>
</tr>
<tr>
<td>Medical Centre</td>
<td>1 space per 25 m² of gross floor area.</td>
<td></td>
</tr>
<tr>
<td>Neighbourhood shop</td>
<td>1 space per 25m² GFA</td>
<td>Parking must be provided to satisfy the peak cumulative parking requirements of the development as a whole. Council may consider relaxing this requirement depending on the characteristics of the proposed development. For this purpose a comparison survey of similar developments, in similar locations should be provided</td>
</tr>
<tr>
<td>Pub</td>
<td>1 space per 4m² of licensed floor area <strong>PLUS</strong> 1 space per bedroom or motel unit</td>
<td></td>
</tr>
</tbody>
</table>
## Car parking and Access

### Registered Club
- 1 space per 7 m² of licensed gross floor area, **PLUS**
- 1 space per 5 seats of auditorium, dining room and recreation area, **OR**
- 1 space per 10 m² of auditorium, dining room and recreation area, **WHICHEVER IS GREATER**, **PLUS**
- 1 space per 3 employees.

Parking must be provided to satisfy the peak cumulative parking requirements of the development as a whole. Council may consider relaxing this requirement depending on the characteristics of the proposed development, and comparison with similar developments in the locality.

### Restaurant
- 1 space per 7 m² of gross floor area available for dining purposes.

### Restricted premises
- 1 space per 20 m² of gross floor area.

### Retail Premises:
- **(a) < or = to 1000 m² gross floor area**
  - 1 space per 20 m² of gross floor area.
- **(b) > 1000 m² gross floor area** (includes supermarkets, department stores, shopping centres)
  - 1 space per 15 m² of gross floor area.
- **(c) Video Stores**
  - 1 space per 15 m² of gross floor area.

### Roadside Stall
- A minimum of 4 off street parking spaces.

### Service Station
- 6 spaces per work bay, **PLUS**
- 1 space per 20 m² of gross floor area of the convenience store, **PLUS**
- 1 space per 6.5 m² of gross floor area **OR**
- 1 space per 3 seats if a restaurant facility is provided, **WHICHEVER IS GREATER**.

All car parks must be located clear of vehicle pump paths.

### Sex services premises
- 2 spaces per room used for the provision of sex services.

### Take-Away Food or drink premises
- 1 space per 12 m² of gross floor area, **PLUS**
- 1 space per 3 seats.

A food outlet that provides no seating will be assessed as a shop. An area for queuing of cars for a drive through facility is required.

### Timber and building supplies
- 1 space per 130 m² of gross display area.

### Vehicle Showroom
- 0.75 spaces per 100 m² of site area, **PLUS**

If a vehicle repair station is included additional parking will be required at the
## Land Use

<table>
<thead>
<tr>
<th>Land Use</th>
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<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Muswellbrook Shire Development Control Plan</strong>&lt;br&gt;<strong>Section 16</strong>&lt;br&gt;<strong>Car parking and Access</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Parking Requirement</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Car parking and Access</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Land Use</strong></td>
<td><strong>Parking Requirement</strong></td>
<td><strong>Comments</strong></td>
</tr>
<tr>
<td><strong>Veterinary Hospital</strong></td>
<td>3 spaces per practitioner, <strong>PLUS</strong> 1 space per employee.</td>
<td>If it is shown that not all surgeries operate at the same time, Council may consider reducing the parking requirement for patients.</td>
</tr>
<tr>
<td><strong>Tourist and Visitor Accommodation</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Backpacker’s accommodation</td>
<td>1 space per bedroom, <strong>PLUS</strong> 1 space per 3 employees, <strong>PLUS</strong> 1 space for manager</td>
<td></td>
</tr>
<tr>
<td>Bed and breakfast accommodation</td>
<td>1 space per bedroom</td>
<td></td>
</tr>
<tr>
<td>Hotel accommodation</td>
<td>1 space per hotel unit, <strong>PLUS</strong> 1 space per 4 m2 of licensed floor area, <strong>PLUS</strong> 1 space per 6.5 m2 of auditorium, dining room and recreation area, <strong>OR</strong> 1 space per 3 seats of auditorium, dining room and recreation area, **WHICHER IS GREATER, <strong>PLUS</strong> 1 space per 3 employees.</td>
<td>The proposed hotel development will be compared to similar existing developments.</td>
</tr>
<tr>
<td>Serviced apartment</td>
<td>1-bedroom or studio: 1 space per unit 2-bedroom: 1.2 space per unit (the 0.2 space to remain as common property) 3-bedroom or more: 2 spaces per unit</td>
<td></td>
</tr>
<tr>
<td>Tourist Accommodation Units</td>
<td>1 space per bedroom</td>
<td></td>
</tr>
<tr>
<td>Motel</td>
<td>1 space per unit, <strong>PLUS</strong> 1 space per 2 employees.</td>
<td></td>
</tr>
<tr>
<td>Freight transport facility</td>
<td><strong>Cars</strong> 1 space per 100m2 of GFA <strong>OR</strong> 1 space per 2 staff, whichever is the greater</td>
<td>On-site parking for staff / visitors must be located in places that are readily accessible from the principal pedestrian entrances to</td>
</tr>
</tbody>
</table>

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<table>
<thead>
<tr>
<th>Land Use</th>
<th>Parking Requirement</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bicycles</td>
<td>Minimum 1 space per 20 staff or part thereof</td>
<td>buildings</td>
</tr>
<tr>
<td>Materials recycling or recovery centre</td>
<td>1 space per 100m² of GFA OR 1 space per 2 employees</td>
<td></td>
</tr>
<tr>
<td>Passenger transport facility</td>
<td>To be assessed on a site by site based on the traffic generating capacity and design of the proposed area. Submit parking study to substantiate proposed car parking provisions.</td>
<td></td>
</tr>
<tr>
<td>Transport or truck depot</td>
<td><strong>Cars</strong> 1 space per 2 on site staff <strong>PLUS</strong> 1 space per transport vehicle present at the time of peak vehicle accumulation on site. <strong>Vehicle Wash Bay</strong> Minimum 1 vehicle wash bay of a size that can accommodate the largest vehicle typically visiting the site <strong>Bicycles</strong> Staff: Minimum 1 space per 5 staff or part thereof</td>
<td>Under no circumstances is the parking of vehicles on a public street acceptable.</td>
</tr>
</tbody>
</table>
SECTION 17 – SEX SERVICES PREMISES AND RESTRICTED PREMISES

Overview

This section is to provide planning controls for the determination of development applications involving Sex Services Premises and Restricted Premises within Muswellbrook Shire.

To protect community amenity, welfare and interest, this section aims to ensure that such operations comply with relevant health standards and ensure the security and well being of workers.

Council welfare agencies, health agencies, the Police and the community as a whole have an interactive role and interest in administering this section of the Development Control Plan.

This Section contains the following sub-sections:-

17.1 – Location
17.2 – Carparking
17.3 – Signage
17.4 – Health and Building Requirements

In preparing an application for Sex Services Premises or Restricted Premises to be lodged with Council, it is strongly recommended that in addition to the required Statement of Environmental Effects to be lodged, that a Draft Plan of Management be prepared to advise on the detailed measures to be employed in operating the premises. This will ensure that Council is able to fully consider the potential impacts of the proposal with reference to operational standards to be employed. The draft Plan of Management should be prepared to address all of the issues within this Section of the DCP.

Aims

a) provide a legal framework to regulate Services Premises and Restricted Premises, both for the Sex Industry and the Community;
b) Operation in accordance with the consent of Council;
c) Locating the Services Premises and Restricted Premises and ensuring that such activities are at a suitable distance from a church, school, hospital, community facility or any premises or thoroughfare frequented by young people;
d) Ensuring that Sex Services Premises and Restricted Premises do not disrupt the amenity of the neighbourhood or locality;
e) Ensuring that the appearance of Services Premises and Restricted Premises are discrete and compatible with adjoining owners;
f) Ensuring that all signage is discrete and in keeping with the streetscape;
g) Ensuring that adequate carparking is provided for staff and clients;
h) Ensuring that Services Premises and Restricted Premises integrate with adjoining land uses and do not create a “red light district”; i) Maintenance of hygiene and safe sex practices;
j) Prevention of under age prostitution;
k) Public Safety and security, inclusive of Sex Industry Workers;
l) Access to public transport.
17.1 Environment

17.1.1 Location
Services Premises and Restricted Premises are only permissible within those zones identified within the Muswellbrook LEP.

Objectives

a) To locate sex services premises and restricted premises where they are least likely to offend

Controls

(i) Sex services premises are not be permitted in shop front premises.
(ii) Access to or exit from a Services Premises and Restricted Premises shall not be located in close visual or physical proximity to the entry of a premises used as a dwelling house.
(iii) Access to or exit from a Sex Services Premises and Restricted Premises shall not be near or within view from a church, community facility, transport terminal or stop, school, pedestrian thoroughfare or any place regularly frequented by children.
(iv) Council will generally not grant development consent to a sex services premises having more than five (5) rooms where sex services are provided at any one time.

17.1.2 External Appearance

Objectives

a) To ensure that sex services premises and restricted premises are discreetly integrated into the surrounding streetscape.

Controls

(i) The entrance, exit and external appearance of the premises should be well lit but not to the extent where it becomes a prominent feature in the streetscape.
(ii) Sex Services Premises shall be designed to be compatible with the built form of adjoining premises.
(iii) The paint finishes on the external walls of the building should not be such that the building becomes a prominent feature in the streetscape (e.g. fluorescent or excessively bright colours).
(iv) The access to sex services premises should be discreet and discourage clients gathering or waiting on the street.

17.1.3 Noise

Objectives

a) To minimise any adverse physical impact, such as noise disturbance and overlooking
Controls

(i) The use of the premises shall not give rise to:

- Transmission of vibration to any place of different occupancy; and

- A sound level at any point on the boundary of a site greater than the background levels specified in Australian Standard 1055 “Acoustic - Description and Measurement of Environmental Noise”; or


17.2 PARKING

Objectives

a) To ensure adequate car parking facilities are provided to service the use.
b) To ensure that sex services premises and restricted premises do not result in adverse traffic and parking impacts to the surrounding locality.

Controls

(i) Comply with Section 16 – Car parking of the his DCP to determine what car parking is required for these developments.

17.3 SIGNAGE

Objectives

a) To ensure that signage for sex services premises and restricted premises is discreetly sized and located.
b) To allow Council to consent to signage for a sex services premises operation in accordance with Section 14 – Outdoor Signage, subject to consideration of the following:

Controls

(i) The sign does not exceed 3 metres x 0.3 metres in size and identifies only the name of the person who conducts the business or the registered name of the business;
(ii) There is only one sign per premises;
(iii) The Council is satisfied that the content, illumination, size and shape of the sign is not likely to interfere with the amenity of the neighbourhood.
(iv) The sign is compatible with the design of the building it is attached to.
(v) Signage should be restricted to the name/address and telephone number
17.4 HEALTH REQUIREMENTS

17.4.1 Cleanliness

Objectives

a) To ensure that the premises are maintained and operated in a manner that protects the health of workers and patrons.

Controls

(i) The premises are to be kept in a clean condition at all times
(ii) The regular use of a contract cleaning service is recommended.
(iii) Cleaning should be performed daily with disinfection of shower floors and weekly scrubbing to remove soap accumulation.
(iv) Spot cleaning is to be carried out by staff. Particular attention should be paid to the following areas.

17.4.2 Showers, Baths and Toilets

Objectives

a) To ensure that the premises are maintained and operated in a manner that protects the health of workers and patrons.

Controls

(i) These fixtures are subject to mould growth and have the potential to harbour and spread fungi, in particular tinea.
(ii) Adequate ventilation is to be provided in accordance with the BCA.
(iii) Regular cleaning and the use of ‘hospital grade’ disinfectants are required to control mould problems.
(iv) The proprietor must ensure baths and showers are cleansed disinfected after each use preferably with a hypochlorite based disinfectant.
(v) Adequate sanitary facilities are to be provided on the premises together with liquid soap and disposable towels at each required wash basin.
(vi) All required wash basins shall be provided with an adequate supply of potable water, at a temperature of 40 degrees Celsius delivered through an approved mixing device.

17.4.3 Linen

Objectives

a) To ensure that the premises are maintained and operated in a manner that protects the health of workers and patrons.

Controls

(i) The proprietor must provide clean linen or a clean cover and clean towels for the use of each client.
(ii) All linen, including towelling which comes into contact with clients, shall be changed immediately after each use.
17.4.4 Disinfection of Swimming and Spa Pools

Objectives

a) To ensure that the premises are maintained and operated in a manner that protects the health of workers and patrons.

Controls

(i) For the purposes of this policy, a “spa-pool” is a pool fitted with a water recirculation and/or an air injection system and a water filter. A “spa bath” is a domestic type bath fitted with a water recirculation and/or an air injection system. A water heater may be incorporated in the system but a water filter is not required. Spa baths must be drained after each use so they can be cleaned and refilled with fresh water.

(ii) Officers of Council and the NSW Health Department may carry out periodic tests to ensure the pool water is suitable for bathing purposes. All swimming or spa pools must be disinfected by a method recommended by the NSW Health Department. These methods include the use of chlorine, bromine, salt water chlorination or ozone. Refer also to the NSW Health Department’s protocol for Minimising Risk of Cryptosporidium Contamination in Public Swimming Pools and Spa Pools (1999).

(iii) Tests shall be done on every swimming or spa pool before the pool or spa is opened each day, and every four (4) hours when the pool or spa is in use. A log book of the pool or spa water quality must be kept by the proprietor and may be inspected by Council officers.

(iv) Swimming and spa pools must comply with the NSW Health Department’s “Public Swimming Pool and Spa Pool Guidelines”. The proprietor must keep on the premises an accurate kit used for testing of pool water. The kit must be able to determine the concentration of:

- Free chlorine, total chlorine and combined chlorine;
- Total bromine; or
- Baqualcil; and
- pH;
- Reserve alkalinity.

(v) Spa pools should be drained regularly so they can be satisfactorily cleaned and refilled with fresh water.

(vi) The temperature of the water in the bathing area of a spa pool should not be allowed to exceed 40°C.

(vii) Spa pools should be provided with a system of automatic analysis and dosage control equipment that maintains the level of disinfectant.

(viii) The guidelines for disinfecting public swimming and spa pools can be obtained from Council’s Health and Building Surveyor in the Environmental Services Department.
17.4.5 Storage and Handling Of Waste

Objectives

a) To ensure that the premises are maintained and operated in a manner that protects the health of workers and patrons.

Controls

(i) Spa pools should be drained regularly so they can be satisfactorily cleaned and refilled with fresh water.

(ii) Provision is to be made for the safe disposal of used condoms, dams, gloves, soiled tissues and the like in the rooms where sexual activity takes place. All waste containers should be capable of being kept clean and be waterproof.

(iii) If contaminated sharps (e.g. Needles or razors) are generated, then non-reusable sharps containers which comply with Australian Standard AS 4031 should be provided for their disposal and appropriate arrangements are to be made for their collection.

(iv) Adequate disinfection fluids are to be provided for any equipment used such as sex aids, for disinfection after each use.

17.4.6 Bars and Food Preparation Areas

Objectives

a) To ensure that the premises are maintained and operated in a manner that protects the health of workers and patrons.

Controls

(i) All bars and food preparation areas shall comply with the Australian Standard for Food premises (AS 4674)

17.4.7 Health of Sex Workers

Objectives

a) To ensure that the premises are maintained and operated in a manner that protects the health of workers and patrons.

Controls

(i) It is recommended that sex workers be immunised against Hepatitis B and in some cases, Hepatitis A, following consultation with a medical practitioner or their local sexual health service.

(ii) Sex workers should be made aware that certain sexually transmissible conditions have no symptoms (eg Chlamydia) and can be carried and transmitted.

(iii) The Public Health Act provides that a person who knows that he or she suffers from a sexually transmissible medical condition is guilty of an offence if he or she has sexual intercourse with another person unless, before the intercourse takes place, the other person:
• Has been informed of the risk of contracting a sexually transmissible medical condition from the person with whom intercourse is proposed; and
• Has voluntarily agreed to accept the risk.

(iv) The Public Health Act also provides that an owner of occupier of a building or place who knowingly permits another person to:
• Have sexual intercourse at the building or place for the purpose of prostitution; and
• In doing so, commit an offence under subsection (1) is guilty of an offence.

17.4.8 Adequate Sanitary Facilities

Objectives

a) To ensure that the premises are maintained and operated in a manner that protects the health of workers and patrons.
b) To ensure that adequate facilities are provided for the amenity of workers and patrons.

Controls

(i) All bathrooms and toilets are to be self contained and inside the premises.
(ii) It is recommended that each room contains its own sanitary facilities (including toilet, shower/bath and a hand basin) for the use of both workers and their clients.
(iii) However, if this is not practical then adequate sanitary facilities must be provided. This is at the discretion of Council. As a guide, one bathroom with full facilities would be sufficient to accommodate three rooms or a three (3) sex worker operation. Also if spa pools, saunas or steam rooms are proposed, then additional shower facilities are required.

17.5 BUILDING REQUIREMENTS

Objectives

a) To ensure that buildings are designed and constructed to an acceptable standard.

Controls

(i) All Sex Services Premises shall be fitted with the necessary services and facilities which are currently required for Class 5 Buildings (Office Building) under the Building Code of Australia;
(ii) Disabled access is to be provided where practicable and in accordance with the Building Code of Australia, AS1428.1 and the Disability Discrimination Act.

Note: Council Officers have the power to conduct regular inspections of all Sex Services related land uses to determine whether they are in compliance with the existing approvals and relevant standards.

17.6 OTHER REQUIREMENTS
17.6.1 Operational requirements

Objectives

a) To ensure that sex services premises are operated, designed and constructed to appropriate standards.

Controls

(i) Security and money handling measures are to be incorporated into a Sex Services Premises. Details to be provided with the development application.
(ii) Where consent is granted, a specified proprietor will be nominated on the consent. Council is to be notified if there is a change to the number of rooms used for sexual services, hours of operation or signage. A new development application may be required prior to further work commencing.

17.6.2 Applications to Close Sex services premises

Objectives

a) To advise of Council’s powers in relation to regulating sex services premises

Controls

(i) An application can be made by a Council to the Land and Environment Court under Section 17 of the Disorderly Houses Amendment Bill for premises not to be used as a sex services premises.
(ii) This section specifies the grounds under which such applications may be made. This section operates in addition to the existing powers of Council to serve notice upon premises operating without consent or outside existing conditions of development consent.

17.6.3 Inspection of Premises

Objectives

a) To advise of Council’s powers in relation to regulating sex services premises

Controls

(i) Council’s Authorised Officers have the power to conduct regular inspections of all sex industry related land uses to determine whether they comply with the standards of the Development Control Plan, the conditions of consent (if applicable).
(ii) Council’s Authorised Officers may also conduct inspections in relation to any complaints received.

17.6.4 Provision, Storage and use of Condoms, Latex and Other Equipment

Objectives

a) To advise of appropriate measures to be employed in the operation of premises.
Controls

(i) Condoms, dental dams and gloves (or any other approved latex products) should be stored away from light and heat, which may contribute to premature deterioration.

(ii) The proprietor must ensure that workers are well informed of the need to use condoms, dental dams, gloves (or any other approved latex products) and water based lubricant, and well-instructed in their use.

(iii) The proprietor must provide an adequate supply of a variety of thickness dental dams, gloves (and other approved latex products) and water based lubricants free of charge to the sex workers and their clients. Condom vending machines are not permitted as a means of supply.

17.7 EDUCATION OF WORKERS AND CLIENTS

Objectives

a) To ensure adequate awareness of health related issues associated with sex services premises operation.

Controls

(i) The provisions of the Occupational Health & Safety Act mean that the practice of safe sex must be the basis on which the workplace operates.

(ii) The proprietor should provide such information to sex workers in the workplace about safe sex; sexually transmissible disease; and cleaning and disinfection of equipment as is necessary to enable the workers to perform their work in a manner that is safe.

(iii) This should include reasonable access by staff from the Sex Workers Outreach Project (SWOP), sexual health Services or other relevant health services.

(iv) The proprietor should provide written information at the workplace for clients about the transmission of STD’s including HIV infection and hepatitis A, B and C. This information should be provided in a variety of languages.

(v) If a sex worker has difficulty communicating in the English language, the proprietor should provide, or arrange for the provision of, the information in a language with which the sex worker is familiar.

(vi) The proprietor must ensure that all new sex workers are well informed of the need to use condoms, dams and water based lubricants, and that on-going education regarding safe sex practices is provided.
SECTION 18 - CHILD CARE CENTRES

Child care centres in the local area are a desirable facility for the well being of children. Children and their caregivers require high quality service in centres that enhance the occupants’ well being. Services must meet State Government standards and offer a safe, healthy and accessible environment. The State Government is responsible for regulating and licensing centres, and joint funding of centres with the Commonwealth.

The design of a child care centre must serve the needs of children, babies, care giving staff, clerical staff, kitchen staff, cleaning staff and parents. The design must provide adequate space for each of these groups, and take into account their needs in using and working in the centre.

Child Care Centres can have adverse impacts, especially in residential areas, such as noise, traffic and parking, and these need to be considered in any development proposal.

How this section is used
This Section applies to child care centres in both residential and commercial zones. Performance based standards can be found in State Government Regulations of the State Government Children's Services Regulation 2004. The Building Code of Australia (Child Care Centres are classified as 9b buildings) and Australian Standards 1428.3 should also be referred to.

This Section supplements those standards so that the childcare centres fit with the context of Muswellbrook Shire and any potential impacts are minimised. This detail is provided in the components listed below.

The construction of new child care centres must address the built form controls that apply to the relevant zoning of surrounding land. (eg, a child care centre in a residential R1 zone must comply with the built form controls in Section 6 of this DCP).

Aims
Childcare centres that:

   a) provide affordable, high quality child care, in convenient locations, that meet the needs of the resident population.
   b) operate without adverse impacts on the local area
   c) achieve a built form that is consistent with the surrounding context

18.1 ENTRY, ACCESS, SAFETY AND SECURITY
Child care centres are permitted at or above ground floor level. For children aged 2 - 6 years, a centre on the ground floor with direct access to open space is preferred, rather than above ground. Centres above ground floor are more suited to children between 0 - 2 years.

An accessible, safe and secure environment allows for easy transfer of children and equipment (for example twin strollers) in and out of child care centres. Entrances to a Child Care Centre should be designed to indicate the way into the building, be welcoming to children, and offer some weather protection.
18.1.1 Entry

Objectives

a) Entrances are clearly marked by signage and protected from the weather.

Controls

(i) Where the entrance to the Centre is on the exterior of the building provide weather protection such as an awning
(ii) Materials and design of weather protection to the entrance is compatible with the building *
(iii) Where the Centre is located within a building that accommodates other uses provide a separate and clearly marked entrance for the Child Care Centre.

18.1.2 Access and mobility

Objectives

a) Safe and easy access within, into and out of the Childcare Centre

Controls

(i) Design in accordance with Australian Standard 1428.1 and 1428.3 (Design for Access and Mobility. Part 3: Requirements for children and adolescents with physical disabilities) *

18.1.3 Safety and security

Objectives

a) A safe environment for all users entering and leaving the Childcare Centre

Controls

(i) on site parking spaces and set-down and pick-up areas are well lit
(ii) locate the entry gate within sight of staff in the office
(iii) install bell or alarm on the entry gate to alert staff to someone entering or leaving the Childcare Centre *

18.2 AIR QUALITY

Muswellbrook Shire’s natural resources are under pressure due to the area’s coal mining and industrial activity, and the major thoroughfares that dissect the area. It is exposed to air, noise and land pollutants which can have negatively effects if not managed properly.

It is particularly important to consider the health of children in the local area by providing for them an environment which, ideally, protects them from pollution, and if this is not possible, at least manages (and thereby minimises) their exposure to pollutants. This can be achieved by considering the location and design of the Centre, and aspects of its operation.
Applications where the environmental risk assessment report indicates that exposure to pollutants cannot be reduced to the satisfaction of Council, may be refused on these grounds. Car parking provisions for Child Care Centres includes set down and pick up areas, disabled access and emergency parking.

18.2.1 Drop off and pick up of children

**Objectives**

a) Safe and efficient transfer of children to and from the Child Care Centre

**Controls**

(i) Provide 2 designated vehicle spaces - one for Disabled Access, and one for emergency use – on site in residential zones, and within close proximity in local centre/village zones, in accordance with the provisions of AS2890.1.
(ii) Provide accessible parking spaces for the set down and pick up of children, no more than 50m from the Child Care Centre.
(iii) Provide 2 set down spaces for less than 24 children, 3 spaces for more than 24 children.
(iv) Car parking provisions do not substantially modify the streetscape.
(v) Spaces are clearly marked to reflect that they are for the exclusive use of the child care users between the peak am and pm hours of the Centre eg 7.30-9.30 and 4.30-6.30

18.2.2 Air quality

**Objectives**

a) No exposure to pollutants that could have an adverse health impact

**Controls**

(i) For Child Care Centres located on –
   - on major roads (including state and regional) or within 50m of such a road
   - roads where there is an average daily traffic rate of more than 5000 per day
   - sites where the external noise level exceeds 55 dB(A) (L90 24 hours)
   demonstrate reduction measures such as double glazing on windows, air conditioning systems, and play areas located away from noise and pollution sources in an environmental report
(ii) Child care centres within 200m of a service station will not be approved unless the application is supported by a preliminary hazard analysis (PHA) under State Environmental Planning Policy No. 33 and a risk assessment (biophysical and societal) taking into account the sensitivity of the use.
(iii) Child care centres within 100m of above ground high voltage transmission lines or mobile phone towers or the like, will not be approved unless the
application is supported by a hazard risk assessment which addresses the potential impacts on human health.

18.3 INDOOR AND OUTDOOR SPACE
Well designed indoor space enhances the well being of the users of the Child Care Centre. The quality of the indoor space affects the level of child involvement and the type of interaction between staff and children.

Indoor space requirements refer to areas used by children for sleeping, eating and playing, and by staff for the caring of children and undertaking duties within the Centre. Passageways, kitchens, toilets and shower areas, or other facilities such as cupboards, are not included when calculating this floor area.

Children require outdoor space so they can move freely and engage in vigorous play. Outdoor space also offers sensory stimulation, provided by different surfaces, exposure to fresh air, sunlight, wind and even rain.

Ideally outdoor space will be exposed to the sky to provide direct sunlight, breezes and fresh air, and will have access to shelter and shade. However it is recognised that in some child care centres, such as those located in local centre zones, the provision of this type of space can be difficult, and outdoor space may also be in the form of -

1. Podium levels. Particular consideration must be given to access to daylight and sunlight, the safety fencing of outdoor play areas, noise and fire exits.
2. Rooftops. Particular consideration must be given to the impact of winds, plant and machinery on nearby rooftops, safety fencing of the play area, and fire exits.
3. Indoor / outdoor areas. Particular consideration must be given to isolating the children from the effects of noise, pollution and winds, and access to natural light and air. Planting, climbing equipment and visual features must provide an interesting and stimulating experience for the children.

Any outdoor play equipment must comply with Australian Standards and include appropriate ground surfacing. The surface around and underneath play equipment must comply with Australian and NZ Standard AS/NZ54422:1996.

All fences within and bordering Child Care Centres are to meet the Australian Standards for safety. The design and height of fencing should prevent children from scaling, or crawling under, the fence.

18.3.1 Indoor space
Objectives

a) Adequate indoor open space for children and staff
Controls

(i) Provide at least 3.25m² of unencumbered indoor floor space for each child.
(ii) Provide at least 10m² of unencumbered indoor floor space for each employee, for office space, staff room, sick bay area and adult toilet and shower facilities.

18.3.2 Outdoor space

Objectives

a) Outdoor open space to allow for children to play and experience sunlight, breezes and fresh air
b) Outdoor open space provides an environmentally safe and healthy area for play

Controls

(i) Provide at least 7m² open space per child.
(ii) Ensure that exposure to external noise, pollution and winds is minimised
(iii) Ensure that 50% of all outdoor open space is shaded during the hours of 10am to 3pm. Shading may be provided by trees, awnings, or similar structures *
(iv) Locate seating and outdoor play equipment in shaded areas *
(v) Ensure outdoor space receives a minimum of 2 hours direct sunlight per day.
(vi) Use plant species in landscaping that are not harmful to children or the environment. *
(vii) Ensure outdoor space is adequately shaded in accordance with guidelines set out in the NSW Cancer Council’s *Shade For Child Care Services* publication.

18.3.3 Fences

Objectives

a) Fence design complements exist design features of the building, and adjoining buildings where appropriate, and offers maximum protection for children

Controls

(i) Use materials and finishes for fences that complement characteristic visual elements in the surrounding physical environment and do not dominate the streetscape *
(ii) If perimeter fences of the outdoor space are close to a major road or a hazard, make them higher than the Australian Standard of 1200mm *
(iii) Provide a childproof self locking mechanism on any gates *

12.4 VISUAL AND ACOUSTIC PRIVACY
Good management of privacy issues ensures the Child Care Centres are well integrated within the local context.

While Child Care Centres are beneficial within a community, there can be noise issues arising from the operation of the Centre, which can be addressed by considering the location and orientation of outdoor space, driveways, parking and access. In residential areas the location of windows and doors can influence noise impacts on nearby homes.

12.4.1 Visual privacy

Objectives

a) Visual privacy for children, staff and nearby residents

Controls

(i) Provide screening by trees, fencing and window coverings to minimise overlooking and noise impacts *

(ii) Locate any play structures at least 3m from any boundary with a residential property

12.4.2 Acoustic privacy

Objectives

a) Noise levels (measured at any point on the boundary of the site between the proposed Centre and adjoining property) do not exceed 5dB(A) above the L90 background level during the hours of operation.

Controls

(i) Locate noisy areas such as outdoor space, vehicle access and pathways away from windows of adjoining dwellings

(ii) Appropriate noise reduction measures are utilised *

(iii) Demonstrate compliance with operating noise levels by providing a report on noise levels prepared by a suitably qualified consultant.
SECTION 19 – USE OF PUBLIC FOOTPATHS

This chapter comprises part of the Muswellbrook Shire Council Development Control Plan and has been prepared in accordance with the provisions of the Environmental Planning and Assessment Act, 1979.

19.1 PRELIMINARY

19.1.1 Introduction
This plan provides guidance to applicants seeking outdoor dining or display of goods immediately adjacent to and in association with an approved refreshment room, tavern or hotel within the Shire of Muswellbrook.

Council is seeking to create viable and vital commercial centres within the Shire, encouraging the local economy and promoting pedestrian safety. There are a wide range of development issues, which need to be addressed to achieve a proper planning outcome for these sites. These include location and siting, pedestrian access, health and safety, visual quality, car parking, insurance and protection of heritage.

Development Consent is required for all outdoor dining and display of goods under the Environmental Planning and Assessment Act 1979, unless to proposal is exempt development under the provisions of schedule 2 of the Muswellbrook LEP. In addition any permanent construction works will require a Construction Certificate.

Where outdoor dining is proposed for a footpath, public mall, or other public area, Council Approval is also required under the Roads Act 1993. Where the road is a ‘classified road’, approval in principle is required from the NSW Roads and Traffic Authority.

The provision of seating, goods or signage on footpaths is allowed at the discretion of Council and subject to an annual permit renewal process. An annual permit fee is applicable for dining, display of goods and signage in public areas.

Failure to comply with conditions of consent, or a permit, or to not have a valid permit in place will result in Council taking action to enforce compliance, and may result in non-renewal of an annual permit to allow the use of the footpath.

This plan has been prepared in accordance with the requirements of the Environmental Planning and Assessment Act 1979, and the Environmental Planning and Assessment Regulation 2000. The plan comprises a written statement, plans and maps.

19.1.2 SUBJECT LAND AND APPLICABILITY

The plan applies to all public land within the Muswellbrook Local Government Area.

Outdoor dining on private land, is dining which is undertaken in the open air on land which is within the control of applicant.

Outdoor dining on public land is dining which is undertaken in the open air on land which is in public ownership. Such land may consist of a footpath pavement, mall or
the walkway under the control of Muswellbrook Shire Council. This is also known as footpath dining.

19.1.3 AIMS OF THE PLAN

The principal aims of this plan are as follows:

a) To encourage, where appropriate, the establishment of outdoor dining areas to support local economic development and commercial viability;
b) To increase and facilitate tourism potential and create active and vital street frontages;
c) To promote a high quality visual environment, ensuring that outdoor dining contributes to the improvement of the streetscape;
d) To regulate the use of outdoor dining areas to avoid nuisance or inconvenience to the public, and to ensure that pedestrian or other forms of traffic are not unduly impeded by the use of a public area for outdoor eating;
e) To provide guidelines for implementing and maintaining the use of public footpaths and land to ensure that adjoining premises are not adversely affected and that the area is kept in a clean and tidy manner.

19.2 PREFERRED LOCATION FOR OUTDOOR DINING

Outdoor dining may be undertaken with prior written approval from Council in a number of places including footways, mall, or other public land, subject to Council providing owner’s consent for the use of the land.

Council’s advice should be sought prior to submitting any application.

19.3 DEVELOPMENT MATTERS

19.3.1 Location

Objectives

a) To encourage the appropriate location of outdoor dining within the Muswellbrook LGA;
b) To create a sense of identity for individual localities;
c) To encourage the appropriate reuse and conservation of vacant heritage buildings, heritage incentives will apply.

Controls

The use of public footpaths for commercial purposes will not be permitted where:

(i) The proposed use is not ancillary to an approved business or retail activity;
(ii) There is an unreasonable hazard to pedestrians, diners or vehicular traffic;
(iii) The public space is not wide enough to accommodate the use of the area while still maintaining a clear pathway of travel for all pedestrians including those who use mobility aids;
(iv) The ground surface of the footpath area is not suitably constructed and sufficiently level to accommodate outdoor dining furniture and enable the
area to be used safely and without inconvenience to pedestrians or vehicles;

(v) It extends past the building line at a road intersection;
(vi) It is located in or adjacent to Heritage Conservation Areas and/or in the vicinity of Heritage Items and does not consider the character of these places;
(vii) Access to public utilities, such as fire hydrants, access holes, inspection chambers, telephone and electricity underground cables, water service pipes, traffic signs and the like are inhibited;
(viii) The use of existing street furniture such as seating, litter bins, letter boxes or telephone boxes are obstructed.

19.3.2 Site Considerations

Objectives

a) To provide sufficient clearance for pedestrian movements.

b) To maintain visual and physical setbacks at street corners to enable safe pedestrian and vehicle movement

c) To ensure that relevant considerations are made with regards to on street car parking, where footway dining is proposed.

Controls

Where activities are undertaken or placed on the public footpath:

(i) Tables and chairs or displays placed on the footpath or in a public area, in accordance with this policy, shall be positioned in such a way that a minimum unobstructed footpath width of 2.0 metres with a minimum height clearance of 2.0m is maintained for pedestrian thoroughfare at all times. Greater widths may be required in areas of high pedestrian and/or high vehicle traffic.

(ii) Umbrellas must have a minimum clearance of 1.8m from ground level (existing), and must not project into the area referred to in (i) above.

(iii) A minimum distance of 600mm shall be maintained between the limit of the seating area and the face of kerb of the road or any other area where vehicles may park and require door swing space.

(iv) A minimum of a 3 metres splay, from the building line, of the dining area shall be provided on corner properties to enable a clear view at intersections for vehicular traffic.

(v) A minimum gap of 0.5 metres between neighbouring adjacent outdoor dining areas shall be maintained.

(vi) Dining and display areas may be demarcated by barriers/screens/planting boxes.

(vii) Outdoor furniture (or display structure) is to be confined to the approved area and must not encroach upon the adjoining footway.

(viii) No outdoor furniture, barrier or structures are to be permanently fastened to the footway or Mall unless Development Consent and Approval is obtained from Council. (The erection of structures may require a construction certificate.)

(ix) The outdoor dining or display area must be paved or sealed for its full width.

(x) The operator shall bear the cost of all pavement repairs carried out by Council, which have been caused by outdoor dining or display activities.
(xi) The applicant/holder of the approval may be required to carry out improvements to the footway at his/her expense where the surface of the footway in the proposed area is damaged, cracked or deteriorated or is otherwise unsuitable for a dining or display area.

(xii) Access for the repair, emergency or otherwise, of utilities or other services under the footpath may be required at any time.

(xiii) Convenient access to facilities (where these are required) and easy surveillance by staff shall be considered in the siting of any dining or display area.

19.3.3 Car Parking

Objectives

a) To ensure that the relevant car parking provisions are met for outdoor dining areas.
b) To permit the relaxation of car parking requirements for some outdoor dining localities to create vibrant and vital core business district and neighbourhood centres.

Development controls

(i) outdoor dining shall be included in the calculation for required off street car parking, irrespective of whether this is on public or private land. See section 16 of the this DCP, which will be applied at the gross floor area rate applicable to the land use to which the outdoor dining is ancillary

19.4.4 Health, Licensing, Insurance and Facilities

Objectives

a) To ensure that any nuisance caused by the outdoor dining area is kept to a minimum.
b) To ensure that the relevant licenses and other permissions are in place to regulate the outdoor dining area.

Controls

Health

(i) The outdoor dining area shall be kept in a clean and tidy condition, shall not to be used for food storage or preparation nor result in the discharge of liquid wastes on to the footway or street.

(ii) The preparation, storage and serving of all food for sale must comply with the Food Act 2003 and the AS4674 (Design, Construction and Fit out of Food Premises).

Insurance

(i) The holder of the approval is to indemnify Council in writing from and against all claims arising from the holder’s legal liability as a result of its occupancy. Council will not accept liability for damage to or loss of furniture
or personal property from the approved area. A Public and Products Liability insurance Policy must be taken out by the applicant/holder of the approval. A Certificate of Currency of the relevant Policy, endorsed with the interests of Muswellbrook Shire Council, is to be provided to Council on each renewal of the Policy.

License

(i) Where outdoor dining or display of goods is proposed on public land the holder of the approval shall hold a valid footpath permit.

Facilities

(i) Toilet facilities are to be available to dining patrons when the combined seating capacity of both internal and outdoor dining areas totals twenty (20) or greater places per establishment, based on the applicable rates under the Building Code of Australia (BCA), as if the outdoor dining area were included as floor space under the BCA.

19.4.5 Amenity

Objectives

a) To provide high quality, practical street furniture (or display structure) to enhance the visual quality of the environment.
b) To provide a pleasant outdoor dining environment to encourage diners
c) To contain the footpath area utilised

Controls

Furniture

(i) The operator’s furniture (or display structure) is to make a positive or neutral contribution to the streetscape. Furniture (or display structure) styles must be practical and integrate with the surrounding area. It should be strong and durable and weather resistant, designed for commercial outdoor use and serviceable.
(ii) Furniture (or display structure) must be stackable or foldable for storage purposes.
(iii) Public safety must be considered and furniture (or display structure) must not present a potential hazard to the public.
(iv) Furniture (or display structure) shall be designed or located such that wheelchair access is possible.
(v) The outdoor dining furniture (or display structure) shall be retained within the prescribed outdoor dining area at all periods, when the business is in operation.

Advertising and signage

(i) Compliance with the New South Wales State Environmental Planning Policy No. 64 (Advertising and Signage) (SEPP 64), the Muswellbrook Local Environmental Plan and section 14 of this DCP.
Amenity

(i) There is to be no interference with the residential amenity of the area by reason of the emission of any noise, odour or smell.

Hours of Operation

(i) The hours of operation of the outdoor dining or display of goods area shall not exceed that of the use to which it is ancillary. All furniture (or display structures) shall be removed from footpath area during the hours that the business is closed.

19.4.6 Heritage

Objectives

a) To ensure that materials and siting of street furniture are appropriate to the heritage location
b) To ensure that damage is prevented to heritage items and heritage conservation areas.
c) To encourage the appropriate reuse and conservation of vacant heritage buildings, Heritage Incentives will apply.

Note

In a Heritage Conservation Area or at or adjacent to Heritage Items or items subject to a conservation instrument advice should be sought from Council’s Heritage Officer prior to submission of any application.

Controls

Street Furniture

(i) Style & Colour: Colour will only generally be allowed on umbrellas. However, the colour palate for heritage areas is likely to be limited to the natural range.
(ii) Blinds and awnings will be considered on their merit.
(iii) Screens: these may be appropriate in some areas.

Sandstone Kerbs

Sandstone kerbs and gutters are a significant part of the heritage in Muswellbrook. Sandstone is relatively soft and in many cases older pavements have suffered from wear and tear. Council’s Heritage Officer will advise on the appropriate type of repair and appropriately experienced specialists.

(i) The use of footpaths shall not interfere or be located such that they may cause damage to sandstone kerbs.

The following page is 20-1
Section 20 - Erosion and Sediment Control

INTRODUCTION

This Development Control Plan was developed based on the Erosion and Sediment Control Regional Policy and Code of Practice prepared by the Department of Land and Water Conservation, Hunter Catchment Management Trust and the Lower Hunter & Central Coast Regional Environmental Management Strategy incorporating the areas of the Central Coast, Hunter, Karuah Great Lakes and Manning Regions of NSW.

This Section contains the following subsections:
20.1 – Legal requirements
20.2 – Erosion and sediment control planning
20.3 – Management of erosion and sediment control
20.4 – Environmental performance bond
20.5 – Exempt works

This section of the DCP relates to land within the Shire of Muswellbrook to which the Muswellbrook Local Environmental Plan applies, which may be impacted by private and public building work, developments, subdivisions and activities subject to the assessment and consent/approval of Council under provisions of Parts 4 or 5 of the Environmental Planning and Assessment Act 1979 and/or under the Local Government Act 1993 for any proposal or practices which will or could involve:

- The disturbance of or placement of fill on the soil surface, and/or result in change to the contours of the land
- Change in the rate and/or volume of runoff flowing over land or directly or indirectly entering “waters” as defined under the Protection of the Environment Operations Act 1997.

OBJECTIVES & CONTROLS

Objectives:

a) To apply appropriate erosion and sedimentation controls on individual development sites;
b) To demonstrate through the preparation of an Erosion and Sediment Control Plan or Strategy for developments over 250 m$^2$ of disturbance that appropriate controls are planned to be installed;
c) To identify all aspects of site disturbance, erosion and sediment control and address with appropriate control measures;
d) To stage works as required to reduce potential for erosion and sedimentation to occur;
e) To remove existing vegetation only as required;
f) To address site rehabilitation for the duration of the project;
g) To provide a mechanism for any remaining exposed soil to be treated and for ongoing site maintenance;
h) To cover the contingency of change or delay in the project implementation, activity or work scope.
Controls:

(i) Areas of disturbance less than 250 m² which are environmentally sensitive (ie within 100m of a water course), on steep sites (gradient greater than 20°) require the completion of an Erosion and Sediment Control Plan;

(ii) Areas of disturbance 250 m² to 1000m² must submit an Erosion and Sediment Control Plan and a schedule of works with a development application;

(iii) Areas of disturbance 1000 m² to 2500 m² must submit an Erosion and Sediment Control Plan and Landscape Plan with a schedule of works with development application;

(iv) Areas of disturbance greater than 2500 m² must submit Erosion and Sediment Control Plan, a Soil and Water Management Plan and a Landscape Plan with a schedule of works;

(v) All subdivisions which are proposed as staged developments must provide a staged Erosion and Sediment Control Strategy with an associated schedule of works;

(vi) Completion of the Erosion and Sediment Control Plan must be undertaken by a suitably qualified person in accordance with this section of the DCP and contain all elements detailed by 22.2;

(vii) A regular maintenance program for all erosion and sediment controls must be submitted with any plan or strategy;

(viii) Existing vegetation must not be cleared in areas not relevant to direct impact from the development;

(ix) Vegetation must not be cleared prior to development approval being granted or before erosion and sediment controls are fully installed;

(x) All proposed controls must be consistent with this section of the DCP and the Managing Urban Stormwater: Soils and Construction manual prepared by Landcom.

DEVELOPMENT CONTROL ELEMENTS

20.1 LEGAL REQUIREMENTS

Failure to comply with the requirements of this section may result in action being taken by Council, or another responsible authority, under relevant legislation. Proponents need to be aware of the extensive amount of legislation relating to the protection of soil, water, habitat and land resources of the NSW environment. Relevant sediment and erosion legislation includes the following:

(a) Environmental Planning and Assessment Act 1979
(b) Protection of Environment Operations Act 1997
(c) Local Government Act 1993
(d) Soil Conservation Act 1938
(e) Rivers and Foreshores Improvement Act 1948
(f) Crown Lands Act 1989

The applicant is responsible for satisfaction of all legislative requirements associated with the activity approval. Council will consider necessary action to be taken under the
relevant legislation if approved erosion and sediment control measures are not carried out or regularly maintained.

Options include, but are not limited to: the issue of an Order or infringement notice under one of the Acts listed above, the charging of a reinspection fee, the forfeit or partial loss of an environmental bond, the issuing of stop work notices and/or other legal action.

If the proponent or other agents cause damage to any structure or surface that is the responsibility of Council while carrying out works to comply with this Code, repairs will be undertaken immediately at the proponents cost.

20.2 EROSION AND SEDIMENT CONTROL PLANNING

(i) Erosion and Sediment Control Strategy (ESCS)
Major proposals that are staged over an extended period requires the completion and submission to Council of an Erosion and Sediment Control Strategy which include staged Erosion and Sediment Control Plans and a schedules of works for implementation. The fundamental issues are:
- Erosion control measures need to be applied within the site to minimise erosion;
- Coordinate works to minimise the disturbed areas and apply appropriate staged controls to the progress of the development;

(ii) Erosion and Sediment Control Plans (ESCP)
An Erosion and Sediment Control Plan (ESCP) is essential for any development with potential to cause significant soil erosion and sedimentation. The greater the potential for these impacts the more detailed the plan. For example, a small development may require a simple sketch with accompanying notes but a large complex development would need a comprehensive plan, documentation and design/construction data.

An Erosion and Sediment Control Plan must be approved by Council prior to the commencement of any works onsite. This plan will contain a schedule of works for implementation that addresses all aspects of site or vegetation disturbance, runoff, flow rate change, erosion and sediment control, ongoing maintenance and site rehabilitation for the duration of the project.

This plan may be required to be modified by the proponent as required to achieve erosion and sediment control throughout the life of the development or activity.

(iii) Aims of an Erosion and Sediment Control Plan
The ESCP should be prepared by a suitably accredited or experienced person. It can be a “stand alone” document or incorporated into a site management or construction plan that shows drawings and notes that the site personnel can fully interpret and implement. Such plans are not limited to erosion and sediment control, but may also address other water quality and/or quantity issues during the construction and operational stages of an activity.

(iv) Structure of Erosion and Sediment Control Plans
The degree of detail supplied by the proponent to Council depends on:
- The scale of the activity
• The area of potential disturbance
• The complexity of the site characteristics e.g. slope, soil type
• The sensitivity of the adjoining environment.

Where an Erosion and Sediment Control Plan is required it should be prepared in accordance with the broad structure set out below. The ESCP must be submitted to Council with all necessary supporting information to allow a critical review and approval.

(a) Site characteristics – including:
• Locality plan (1:1000 scale)
• Existing contour data
• Catchment area boundaries
• Principal geographic features
• Natural water flow patterns
• Critical natural areas (e.g. River, wetlands)
• Location and limitations of major soil types
• Location, nature and condition of existing vegetation
• Soil subsidence
• Climatic data including rainfall and storm events.

(b) Clearing and disturbance of site – including:
• Nature and extent of vegetation to be cleared, including area and depth of clearing
• Scheduling and time of proposed disturbance
• Methods of site clearance
• Final site contours data
• Identify areas of cut and fill, location of stockpiles and spoil/vegetation dumping proposals.

(c) Existing and proposed drainage patterns – including:
• Catchment Boundaries
• Existing watercourses or drainage patterns flowing through or adjacent to the site
• Location and extent of impervious surfaces
• Location and capacity of the proposed temporary and permanent site drainage or stormwater system.

(d) Erosion control practices – including:
• Location, design criteria and construction details of temporary control measures to be implemented
• Location, design criteria and construction details of permanent control measures to be implemented;
• Scheduling details of works to be undertaken
• Monitoring and maintenance details.

(e) Sediment control practices – including:
• Location, construction details and design criteria of temporary and permanent control measures
• Scheduling details of works to be undertaken
• Monitoring and maintenance details.

(f) Rehabilitation program – including:
• Location of temporary and permanent revegetation sites
• Materials and species selection
• Application and planting methods
• Types and rates of fertilisers and other soil ameliorants
• Mulching details
• Scheduling details of planting and maintenance works
• Monitoring and maintenance details.

(v) Plan Variations
An ESCP needs to demonstrate that appropriate controls have been planned to minimise erosion and soil movement both on and off the site.

Complex plans completed for disturbance areas over 1000m² need to include specifications and calculations which illustrate that the control measures have a completed capacity that exceeds the calculated output anticipated from the catchment during the proposed project or stage.

Review and variation of the original ESCP or ESCS may be required during the life of the development. However where the site conditions necessitate the modification of a plan, changes must be endorsed by Council.

(vi) Sample Erosion and Sediment Control Plan
Sample residential development ESCP that provide a guide for proponents in the creation of a site specific drawing for submission to Council are attached as Appendix B. Copies are also available from Councils Administration Centre.
20.4 MANAGEMENT OF EROSION AND SEDIMENT CONTROL

(i) Introduction
The requirements for a plan, strategy or control measures depend on the area to be disturbed and the type of activity as set out in Table 1:

Table 1:

<table>
<thead>
<tr>
<th>Disturbance</th>
<th>Activity Type</th>
<th>Scope of Works</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;250 m²</td>
<td>House extensions, small driveways, garages</td>
<td>No Erosion and Sediment Control Plan required, except for environmentally sensitive (such as that within 100m of a water course) and very steep sites (gradient greater than 20°), but proponents are expected to follow the general principles of this section of the DCP.</td>
</tr>
<tr>
<td>250 to 1000 m²</td>
<td>Houses, small commercial development, long driveways, small subdivisions</td>
<td>Erosion and Sediment Control Plan and schedule of works for implementation required.</td>
</tr>
<tr>
<td>1000 to 2500 m²</td>
<td>Houses, medium/high density houses, small civil infrastructure / commercial / industrial development, small subdivisions, etc</td>
<td>Erosion and Sediment Control Plan and a Landscape Plan with their associated schedule of works for implementation required. A staged Erosion and Sediment Control Strategy is required for developments which are proposed for extended periods of time (longer than 12 months) or those that will be staged over a period of time.</td>
</tr>
<tr>
<td>&gt;2500 m²</td>
<td>Extensive medium/high density houses, large civil infrastructure / commercial / industrial development, subdivisions, etc</td>
<td>Erosion and Sediment Control Plan and a Soil and Water Management Plan and a Landscape Plan with their associated schedule of works implementation required. A staged Erosion and Sediment Control Strategy is required for developments which are proposed for extended periods of time (longer than 12 months) or those that will be staged over a period of time.</td>
</tr>
</tbody>
</table>

(ii) Compliance Responsibility
The proponent is responsible for the full cost of all work required to comply with this Section of the DCP, as determined by Council. Any off-site damage resulting from the activity is also the responsibility of the proponent. All erosion and sediment control measures or works and rehabilitation measures must conform to or exceed the specifications or standards set out in the *Managing Urban Stormwater: Soils and*
Construction manual prepared by Landcom.

(iii) Development Control
While carrying out any approved work covered by this section of the DCP, the proponent must minimise erosion and retain sediment eroded by water or wind on the development site.

This will involve as a minimum those requirements listed below to meet this objective:

- **Erosion and Sediment Control Plan (ESCP)**
  Installation and maintenance of the erosion and sediment controls set out in the approved Erosion and Sediment Control Plan or Strategy, or associated development/activity approval conditions of consent and the associated vegetation clearing and works implementation schedule.

- **Access**
  (a) Where possible, a single access (3 to 5 metres width per lane) shall be provided to the building facade.
  (b) A layer of 30mm to 60mm aggregate at a depth of 200mm must be applied to the access for stabilisation. For those accesses which may receive consistent heavy traffic geotextile fabric may be used as an underlay. This aggregate must be reinstated as required if soil is able to be tracked from the site onto adjoining properties or roadways.
  (c) The proponent must control vehicular access to prevent sediment being tracked onto adjoining lands and roads. Aggregate and any construction site sediment on sealed roads must be thoroughly swept and removed to prevent this material entering the drainage system. Runoff from access surfaces must drain into an approved sediment trap device, and be treated where required before release from the development site.

- **Groundcover**
  (a) A turf filter strip shall be installed and maintained along the road nature strip/footpath area adjacent to street kerbs (or along the downslope boundary) to act as a final filter for the runoff leaving the property. Any exposed soil on the footpath and allotment shall be seeded or otherwise revegetated to limit runoff water and sediment. Existing groundcover may also be retained during clearing works to accommodate this requirement.
  (b) In areas where the property is adjacent to bushland, care is needed to prevent the spread of turf grasses or hydromulch material beyond the rehabilitated area. Use of tree mulch or sterile seed/grass stock or native seed/seedling may be preferable to pasture species or couch turf in such locations.

- **Roof Water Disposal**
  (a) All roof guttering and downpipes (temporary downpipes are acceptable) shall be installed and connected to Council’s drainage system immediately after roof material fixing. If this connection cannot be made immediately, then additional onsite sediment control devices must be installed to receive and mitigate roof water runoff.
  (b) Where no Council drainage system is provided, the roof stormwater shall be discharged away from the building site onto a stable vegetated area within the property boundary with sediment control devices installed.
• **Sediment Control**
  (a) A sediment fence shall be installed to provide a temporary barrier or filter geotextile structure that captures sediment from the sheet flow runoff. It will be located within and/or along the downslope boundary of any construction site or upstream of a turf filter strip or native vegetation. Generally sediment fencing is restricted to small catchment areas with a slope length of less than 60 metres, and away from concentrated flow paths.
  
  (b) Sediment traps will be installed to provide a temporary sediment control measure to intercept and retain sediment laden runoff in an excavation and/or an embankment located at all points where stormwater can leave a construction site or enter a drainage system. On sites with highly dispersible or erodible soil Council requires runoff within sediment traps to be filtered of flocculated before the water is released to the environment.
  
  (c) Use of water runoff detention and sediment interception measures, where required. These will reduce flow velocities and prevent disturbed material (including topsoil, sand, aggregate, road base, spoil or other sediment) escaping the site or entering any adjacent lands or receiving waters.
  
  (d) For a proposal within a disturbed area greater than 5 hectares, the proponent must demonstrate that runoff frequency or peak downstream of the development will not be increased. This must be demonstrated through calculations and modelling undertaken by a suitably qualified person.
  
  (e) Sediment detention basins will be installed if total sediment volume calculated for the proposal catchment exceeds 150 cubic metres in the design Annual Recurrence Interval (ARI) 5 year storm event. These basins must be maintained until consent conditions are fulfilled.
  
  (f) Where the subsoils within the development site contain more than 10% dispersal soils material, the proponent will capture and treat all runoff to a level specified by the Department of Environment and Climate Change (DECC) before discharge to receiving waters.
  
  (g) Wind erosion mitigating practices and associated sediment interception structures must be applied to the land to reduce wind erosion where required.
  
  (h) Appropriate water and wind erosion control measures will be in place before land is disturbed and maintained until effective land stabilisation is completed.
  
**(iv) Runoff Water Control**
During the implementation of any approved work covered by this section, the proponent must retain sediment eroded by water on the development site. This can be achieved by carrying out as many of the following principles and practices as are required to meet this objective:
  
  (a) Intercept and divert all uncontaminated runoff around all areas to be disturbed. Alternatively runoff can be directed through these areas in a controlled manner;
  
  (b) Control all runoff from the proposed development which is likely to cause flooding or erosion of downstream watercourses with appropriate drainage, channel or detention works. These works can be located above, within or below the approved development site provided that these measures are located on private land with the approval of the property owner.
  
  (c) Ensure all drainage conduits and related structures are completed before they are commissioned.
(v) Rehabilitation
The proponent will carry out progressive land surface stabilisation on all disturbed areas until the site is satisfactorily rehabilitated, and where appropriate, landscaped to the satisfaction of Council.

(vi) Topsoil and Stockpile Management
(a) Topsoil will only be stripped from approved areas to a predetermined depth. It must be stockpiled separately from subsoil for re-use during site rehabilitation and landscaping, or removal if there is an excess. Subsoil spoil not required may be removed or placed on-site, in approved areas, shaped to appropriate land contours, topsoiled and stabilised by the proponent.
(b) Stockpiles of topsoil, sand, aggregate, spoil, building products or other material shall be stored within the boundary of the property at least 2 metres clear of any drainage line or easement, natural watercourse, footpath, kerb, road surface or established tree.
(c) Stockpiles must not be greater than 2m in height.
(d) Stockpiles must have measures in place to retain such materials on the stockpile. Controls shall be installed or constructed to divert stormwater flows away from stockpile areas.
(e) Stockpiles must not be placed so as to encroach on erosion and sediment controls which have been installed, stabilised accesses or the nature strip.
(f) The land adjoining the stockpile shall be protected from degradation by the implementation of erosion and sediment control measures such as a diversion drain, sediment fence, geotextile or other approved devices.

(viii) Erosion and Sediment Control Maintenance
All erosion and sediment control measures must be maintained at workable capacity or condition until permanent rehabilitation measures are fully operational.
(a) All erosion and sediment control measures, including permanent sediment traps, shall be maintained as per the schedule of works within the approved Erosion and Sediment Control Plan or Strategy (or as required). At least 70% of their design capacity is to be operational until they are decommissioned.
(b) All material removed from erosion and sediment devices must be either stabilised in situ or removed to an approved disposal site.
(c) Decommissioning of erosion and sediment control measures must comply with the schedule of works within the approved Erosion and Sediment Control Plan, Strategy or associated develop/activity conditions of consent. Material held in sediment control measures during decommissioning shall be either stabilised in situ or removed to an approved disposal site. All structural materials used to construct temporary erosion and sediment control measures are to be dismantled and removed from site on decommissioning.
(d) All site debris and unused construction material must be removed from the site or protected from erosion before the site is vacated.

20.5 ENVIRONMENTAL PERFORMANCE BOND
Council may require the proponent to lodge a bond. This is to ensure effective erosion and sediment control measures and rehabilitation works are implemented and maintained. The bond can be required for any activity deemed by Council including the...
following situations:
- Proposals adjacent to environmentally sensitive areas
- Proposals with a disturbed area greater than 5 hectares
- Proposals involving exposure or disturbance of the land surface for periods greater than 6 months.

20.6 **EXEMPT WORKS**

The following situations are exempt from this Code of Practice:

(a) Emergency Situations – This policy does not apply to land uses and/or activities such as emergency flood mitigation or to emergency bushfire backburn operations. It also does not apply to other such specific land uses more appropriately addressed by separate policies. However, after the emergency situation has passed, remedial measures should be undertaken to address any erosion hazard and to rehabilitate the site in a manner consistent with this section of the DCP.

(b) Bushfire Management – Trails and tracks for bushfire prevention and control can be constructed and maintained provided they comply with the appropriate guidelines for fire trail construction and maintenance such as the Department of Land and Water Conservation’s Guidelines for Fire Trail Construction and Maintenance, or a Plan prepared in accordance with section 41A of the Bushfires Act (1949).
APPENDIX A - DEFINITIONS
The following glossary of terms is provided in relation to Erosion and Sediment Control:

Activity
a) The erection of a building;
b) The carrying out of work in, on, over or under land;
c) The use of land or of a building or work; and
d) The subdivision of land, and includes any act, matter or thing for which provision may be made under Section 26 of the Environmental Planning and Assessment (EP&A) Act and which is prescribed for the purpose of this definition, but does not include:
   • any act, matter or thing for which development consent under Part IV of the EP&A Act is required or has been obtained;
   • Or any act, matter or thing which is prohibited under any environmental planning instrument.

Approval
A licence, permission or any authorisation under the EP&A Act 1979.

Approving Authority
A Council, authority or determining body.

Authority
In relation to a development application, means:
a) The Council having the function to determine the application and/ or regulate the activity; or
b) The Minister or public authority or the Director where an environmental planning instrument specifies as having the function to determine the application.

Building Works
Includes building/structure or part thereof.

Consent
Means a licence or permission or any authorisation under the EP&A Act 1979.

Construction Site or Area of Disturbance
Is that portion of a site disturbed by the development and/or building and includes the areas where building materials are placed and access traversed by vehicles.

Cultivation
The mechanical preparation of the soil required for the growing of crops/pasture.

Development
In relation to land, means; the erection of a building on that land; the carrying out of a work in, on, over or under that land; the use of that land or of a building or work on that land; the subdivision of that land.

Dispersible Soil
Dispersible soil is soil which is structurally unstable. In water it will break down into its...
Erosion and Sediment Control Plan (ESCP)
Is a plan showing how potential erosion and sedimentation on a given site resulting from approved building works, development or activity will be minimised or controlled.

Erosion and Sediment Control Strategy (ESCS)
Is a staged plan showing how potential erosion and sedimentation on a given site (which is proposed to be developed over an extended period of time or via staged development works), resulting from approved building works, development or activity will be minimised or controlled.

Environmentally Sensitive Land
Is land that is located within 100m of a water course, is steeper than 20 degrees of slope; liable to degradation due to erosion, sedimentation, salinity/acidity, inundation by sand/soil or water, invasion by exotic vegetation; or native vegetation and wetlands.

Landscape Plan
Is a plan showing the location, type and quantity of vegetation and structural elements to be placed on the site to gain visual amenity and screen sections of the site from public view or use.

Level Spreader
An excavated outlet constructed at zero grade and level across the outlet edge.

Perimeter Banks and Channels
Are earthen structures that collect and divert runoff and have a level spreader (level sill) outlet to prevent erosion at the discharge point.

Receiving Waters
Means either:

a) natural water bodies, including rivers, streams (perennial or intermittent), flowing in natural channels with natural beds or in artificially modified channels, lakes, lagoons or wetlands, either naturally formed or artificially modified, or tidal waters, including bays, estuaries or inlets, or
b) constructed water bodies including waterways, channels, canals, dams, ponds, or wetlands, lakes, bays or inlets no matter whether they are permanently or intermittently inundated with water.

Sediment
Means either mineral or organic material that is being, or has been moved from its site of origin by transporting agents such as water, wind and gravity to a lower position in the
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catchment.

**Sedimentation**
Means the deposition of sediment, usually in locations such as a channel, along a fence, in an area of low slope or a sediment trap, dam or water body.

**Soil Erosion**
Means the wearing away of the soil surface by wind, water or gravitational effects. Natural rates of erosion are accelerated by some human activities.

**Soil and Water Management Plan**
describes the planned measures to be undertaken at an activity site which will mitigate soil transport and control pollution by sediment or nutrient to downslope lands and receiving waters.

**Subdivision**
"Subdivision", "subdivide", and similar expressions refer to dividing land into parts.

**Vegetation**
Means native and exotic trees, shrubs, understorey and grasses found within the Council area.

**Waters**
means any river, stream, lake, lagoon, swamp, wetlands, unconfined surface water, natural or artificial watercourse, dam or tidal waters (including the sea), or part thereof, and includes water stored in water mains, water pipes and water channels, and any underground or artesian water, or any part thereof.

*The following page no. is 21-1*
SECTION 21 – CONTAMINATED LAND

INTRODUCTION

Pursuant to the provisions of the Environmental Planning and Assessment (EP&A) Act 1979, Local Government Act 1993, Contaminated Land Management Act 1997, and the Contaminated Land Management Regulation 1998, Council has a duty of care when considering Development Applications, to consider fully the possibility of land contamination and the implications it has for any proposed future use of land.

In recognition of its duty of care, Muswellbrook Shire Council will adopt a precautionary approach to its consideration of applications involving contaminated or potentially contaminated land. The object of this approach is to enable any land contamination issues to be identified and dealt with at an early stage in the planning process.

The processes of identifying, evaluating and remediating contaminated land are documented in the Managing Land Contamination: Planning Guidelines SEPP 55 developed by the Department of Urban Affairs & Planning and the Environment Protection Authority in 1998; and the National Environment Protection (Assessment of Site Contamination) Measure 1999. Council considers these guidelines to be a mandatory reference for consultants assessing contamination levels and undertaking remediation exercises.

Council views contamination as a subset of general pollution and will seek, in its assessment and determination of all applications, to ensure the continued compatibility of all development by minimising the potential for polluting discharges, fugitive emissions and controlled spillages by appropriate site management techniques. It is incumbent upon all developers to design and manage their sites in a manner consistent with this objective.

It does not follow that adherence to Council’s policy and procedure alone is sufficient to ensure approval of an application for the rezoning or development of contaminated land. Council will consider each and every application on its merits having particular regard for the circumstances of each individual case.

OBJECTIVES & CONTROLS

Objectives:

• Ensure that the potential for the contamination of land is considered in the planning and development process;
• Ensure that strategic planning and development decisions appreciate matters relating to the potential for previous land uses to contaminate land;
• Ensure that the Council exercises its functions relating to land development with all reasonable care and due diligence;
• Ensure that the development of contaminated land does not result in unacceptable levels of risk to public health or the environment;
• Ensure that site investigations are undertaken in a satisfactory manner in accordance with appropriate legislation, regulations, guidelines and standards;
• Ensure that the community is not negatively impacted through increased health and environmental risks from land contamination issues.

Controls:
(i) Identification of previous land uses which may have caused potential contamination risks to land
(ii) Identification of potential pollutants which may have contaminated land
(iii) Assessment of site specific contamination relevant to the redevelopment or rezoning of land and appropriate proposed land uses
(iv) Investigation and assessment of contamination in accordance with appropriate legislation, regulations, guidelines and standards
(v) Remediation of contaminated land to a standard appropriate for the proposed land use
(vi) Identification of potential off site impacts associated with land contamination
(vii) Notification of significant risk of harm to the Department of Environment & Climate Change if required.

21.1 WHAT IS CONTAMINATION?

Contamination can result from a number of past and/or present land use activities which may include, but are not restricted to:
- The controlled or uncontrolled disposal of wastes, including sewerage or trade wastes;
- Accidental leakage;
- Leakage during plant operation, storage or transportation of raw materials, finished products or wastes;
- The inappropriate storage or handling of substances.

Appendix 1 provides a quick reference guide to some potentially contaminating activities. This list should be consulted as part of the initial enquiry process undertaken prior to the lodgement of an application with Council.

Council has developed a set of procedures to be followed for rezoning proposals and for Development Applications (DA’s) to assess the potential of site contamination. These procedures allow for a merit based consideration of land contamination issues, that is in considering the implications of contamination, Council will have regard for the sensitivity of a proposed land use in addition to any technical standards or requirements published by the NSW Environment Protection Authority (EPA), the Australian and New Zealand Environment Conservation Council (ANZECC), the National Environment Protection Council (NEPC), the National Health and Medical Research Council (NH&MRC) or any other relevant authority.

21.2 DUTY TO REPORT

The Contaminated Land Management Act 1997 requires individuals to notify the Department of Environment & Climate Change (DECC) if they become aware that their activities have contaminated land so as to present a significant risk of harm to public health or the environment.

The Act also requires landowners to notify the Department of Environment & Climate Change (DECC) if they become aware that their land has been contaminated so as to present a significant risk of harm to public health or the environment. This requirement applies to all property owners whether the contamination occurred prior to or after the landholders ownership of the property.
Any notification of significant risk of harm to the DECC must be done as soon as practicable after becoming aware of the potential for significant risk of harm. This notification must be undertaken in accordance with the Contaminated Land Management Act 1997.

To assess the risk to public health or the environment associated with contamination, the land owner and/or persons who have caused the contamination should consult with the Guidelines on Significant Risk of Harm from Contaminated Land and the Duty to Report developed by the NSW Environment Protection Authority (EPA).

21.3 PROCEDURAL PRINCIPLES

There are 4 main stages in the assessment of contamination associated with the development contaminated land, as detailed by the Managing Land Contamination: Planning Guidelines SEPP 55.

At each stage it is the applicant’s responsibility to provide the necessary documentation to Council and to fund the work required to prepare such documents. If Council is unsatisfied with the procedure or findings of a report it may choose to obtain an independent review of the investigation and reports completed, which would also be at the cost of the applicant or property owner.

The stages are as follows:

- **Stage 1 Preliminary Investigation** - This stage involves an investigation and reporting of the site history and is typically based on readily available information such as historical record of land use, aerial photographs and consultations with previous occupants and relevant authorities.

  At this stage some initial sampling and analysis may need to be undertaken by a suitably qualified environmental consultant and in accordance with the ANZECC/NH&MRC guidelines.

- **Stage 2 Detailed Investigation** - Should the initial investigations indicate that further assessment is required or if in the opinion of Council it fails to clearly demonstrate that the land is suitable for its proposed use, a detailed assessment and evaluation is to be submitted.

  The detailed investigation stage is required to provide information regarding the extent and degree of contamination. This detailed evaluation stage involves formal sampling by a suitably qualified environmental consultant in accordance with the ANZECC/NH&MRC guidelines. Typically, a site specific work plan is developed during this stage, based on previous investigations.

- **Stage 3 Site Remediation** – The remediation of the site must be managed through the completion of a Plan of Remediation or Remediation Action Plan (RAP). This RAP must detail the proposed method of remediation, the reason for remediation and final goals of remediation.

  The basis of site remediation is to select a socially acceptable and cost effective management strategy which mitigates threats to, and provides protection for public health and the environment as well as allowing flexibility in the future use of the
land. This process is facilitated by selecting appropriate criteria which is recognised as being a suitable level of contamination for the proposed land use.

Once a clean-up technique or management strategy has been chosen and used, validation of the clean-up must take place to ensure that the measures taken are adequate for the protection of local amenity, public health and the environment.

- **Stage 4 Validation and Monitoring** – The purpose of validation is to confirm that the remediation process has achieved the objectives and goals of the Remediation Action Plan (RAP) and has remediated the land to a level suitable to the proposed land use.

The validation of a site must be undertaken and reported on by a suitably qualified consultant who has managed the site investigation and remediation process. The consultant should follow the relevant EPA guidelines when validating a site.

Ongoing monitoring of contaminated sites may also be required to ensure that any identified pollutants are not permitted to migrate from the site. Any proposal for ongoing monitoring must be detailed in the RAP completed for the remediation of the site or the final validation report, and must also include a legal agreement from the property owner that this monitoring will be undertaken.

Council requires the submission of a preliminary investigation report (including site history information and documentation of known or potential sources of contamination) at the following stages:

- **Rezoning Applications** - with initial Rezoning Application to Council; and
- **Development Applications** - where a change of land use is proposed or where the subject or immediately adjacent land is suspected of contamination (consideration will be given to contamination at the DA stage).

Subsequent stages of the SEPP 55 Guidelines and/or Council’s policy will not apply in cases where:

- A preliminary investigation report clearly and unequivocally demonstrates, in the opinion of Council, that the contamination of the subject land and its surrounds has not occurred and/or;
- The subject land has previously been remediated to an appropriate standard acceptable to Council for the proposed land use.

At any time throughout the assessment process of an application for potentially contaminated land, Council may request a separate independent audit review of work or conclusions drawn by an applicant’s consultant. Should an independent review be required the cost of that review is to be met entirely by the applicant. Although paid for by the applicant, the independent consultant is engaged by Council and must report direct to Council.

Council requires that an independent consultant be suitably insured and be accredited under relevant New South Wales legislation.

Where a detailed site evaluation indicates that the level of contamination on a particular site is high, Council may require the applicant, developer and/or landowner (or future landowners) to provide indemnification to Council that he/she or they, will at all times, comply with any conditions of development approval relating to the remediation.
control, monitoring, inspection, reporting and maintenance of the land contamination. This may be in its applicable state at the time of development approval or in a residual state following remediation works, as the case may be. Such indemnification will be prepared at the applicants cost.

21.4 PROCEDURES FOR DEVELOPMENT APPLICATIONS

Development Applications which propose a change of land use or are the subject of or immediately adjacent to land which is potentially contaminated, will be assessed as per the procedures detailed by this Section of the DCP.

The key requirements of this procedure are:

- The submission, by the applicant, of a preliminary investigation report (see 21.3) at the time of lodgement of the application with Council.
- Should Council’s assessment of the initial identification report indicate the need for further information or investigation, Council may call for additional sampling and/or justification to be submitted, at the applicant’s cost.
- Where it has not been clearly demonstrated that land is suitable for its proposed use in its present state, Council will require the submission of a detailed site investigation report (see 21.3).
- Where land is found to be free of contamination or where, in Council’s opinion, the extent of contamination does not pose a threat to human health or the environment, Council may proceed to determine the application without reference to clean-up standards or remediation requirements.
- If the land is found to be contaminated, details of an appropriate remediation action plan (RAP) are to be submitted for the consideration of Council or where remediation is not practical the application shall be refused.
- If Council is uncertain about the findings of a preliminary investigation report or a detailed site investigation, it may require an independent assessment of work undertaken, as documented in 21.3 of this Section of the DCP.
- Depending on the degree of contamination, and the remediation strategy proposed, Council may decide to issue a deferred commencement consent or require indemnification from the developer or landowner that they will develop, maintain and monitor the land as required by the terms of any consent.
- Council will require any necessary remediation to be validated by an independent environmental consultant.

Information pertaining to land contamination which has been submitted as part of any relevant rezoning application may be sufficient to satisfy some of the requirements of this policy for DA’s.

It is incumbent upon an application to demonstrate to Council that previous investigations, and/or remediation strategy/works, carried out at any stage in the land development process, satisfy the provisions of this policy.

21.5 PROCEDURES FOR REZONING APPLICATIONS


21.6 DEFINITIONS
Contaminated land means land in, on or under which any substance is present at a concentration above that naturally present in, on or under the land and poses, or likely to pose, an immediate or long term risk to human health or the environment. (EP&A Act 1979 (145A)).

Deferred Commencement Consent

Fugitive Emission are emissions which are permitted to enter the environment without controls to restrict their discharge.

Indemnification

Investigation Level means the concentration of a contaminant above which will require additional appropriate investigation and assessment.

Land Use refers to the activities undertaken at a site which may influence the status of the property and the potential for contamination to occur.

Precautionary Approach means that if research or supporting information such as analysis or modelling is unavailable then no action is to be undertaken until this information is obtained in support of the activity.

Remediation refers to the removal, mitigation or hazard elimination of contaminants relevant to a site which is considered to be contaminated.

Remediation Action Plan (RAP) is a plan which sets remediation goals and records the process of remediation regarding a site.

Validation is the process of determining whether the objectives for remediation and any conditions of consent have been achieved.
APPENDIX 1

SOME POTENTIALLY CONTAMINATING ACTIVITIES AND MAIN CONTAMINANTS

**Agriculture/ horticulture** - Land heavily treated with persistent chemicals such as arsenic and organochlorine based chemicals (e.g. Banana plantations, cotton and sugar cane fields, local orchards and horticulture plantations and market gardens), and organophosphate-based chemicals.

**Airports** - Hydrocarbons (fuels and organic solvents), oils and heavy metals.

**Asbestos production and disposal** - Asbestos based waste such as asbestos tailings (usually contains 2% asbestos from asbestos mines).

**Battery manufacture and recycling** – lead, manganese, zinc, cadmium, nickel, cobalt, mercury, silver, antimony, sulfuric acid.

**Chemical and Petrochemical Works** - A variety of contaminants from the production, recovery and storage of organic and inorganic chemicals including petrochemicals (e.g. Tar and bitumen); solvents such as chloroform, trichloroethylene and tetrachloroethylene from dry cleaning establishments; fertilisers, pesticides, pharmaceuticals, soaps and detergents, dyestuffs, inks and paints, acids and bases, asbestos).

**Concrete and Brick Industry** - In areas with clay deposits, open cuts were created from the extractive activities. These open cuts which could reach a depth of up to 10 metres, were progressively filled with waste and in particular industrial waste.

**Docks and railway land, especially large sidings and depots** - Oils and hydrocarbons (including polyaromatics such as PAHs, diesel fraction), volatile chlorinated hydrocarbons (such as VOC’s), heavy metals (copper, lead, mercury, chromium and zinc), and paints, arsenic, herbicides and asbestos.

**Drum reconditioning** – chemicals such as solvents, paints, dyes and oils.

**Gasworks, other local carbonisation plants and ancillary by products works** - Hydrocarbons such as naphtha, especially aromatic hydrocarbons such as PAHs, coal tar derivatives, phenolics, “spent oxide” (iron or calcium oxides containing high concentrations of free sulphur, sulphides, sulphates), cyanides (free and complex), and asbestos.

**Heavy engineering installations, eg. Shipbuilding, car manufacturing, electrical and electronic manufacturing** - heavy metals, oxides, antifouling paints (copper and tributyl tin based), lead, asbestos.

**Installations involving the processing, use or disposal of radioactive materials** - Cobalt (e.g. Gamma sterilisation and medical therapy), strontium, cesium and radium (e.g. Research and medical applications), uranium (e.g. Research), thorium (e.g. Industrial processing of mineral sands), plutonium and tritium isotopes and others.

**Landfills and other waste disposal and storage sites including transfer stations** - Putrescible waste (e.g. Food waste), paper, glass, plastics, metals and other materials.
generated mainly by householders and dumped into municipal landfills; bacteriological contaminants (eg. Infectious waste) and cytotoxic chemicals from clinical waste, pesticides from contaminated drums, ash containing heavy metals from coal fired power stations or other incinerators, aluminium and iron from water treatment residuals, heavy metal based waste from mining activities and liquid waste such as solvents, generated mainly by industry - in controlled and/or secured landfills.

**Metal/metallurgical Industry** - eg. Refining or recovery of metals, electroplating and metal finishing - Phosphates, nitrates, nitrites, sulphates, heavy metals (cadmium, chromium, copper, lead, nickel, zinc, cobalt, etc.) and cyanides (from alkali cleaning), aromatic compounds such as benzene, toluene, xylenes, styrene and chlorinated hydrocarbons (from solvent cleaning and paint removal), polycyclic aromatic hydrocarbons (PAH’s) (from colouring and bituminising agents), PCBs and mineral oils, asbestos and beryllium.

**Metal Mines** - Acids, cyanides and heavy metals such as cadmium, copper and zinc from mine tailings and processing plants, asbestos and sulphates.

**Mining and Extractive Industries** - eg. Handling and storage or ores and carbonaceous materials. Also hydrocarbon materials from fuel storage and handling.

**Munition Production and Testing Sites** - Mercury and lead based compounds, RDX, sulphur, nitrates (organic and inorganic), TNT, detonating devices and others.

**Oil Refineries, Petroleum Storage and Distribution** - Petroleum hydrocarbons and lead from oil refineries, petrol stations, above and underground storage tanks and distribution sites.


**Pesticide storage areas** - areas where vehicles used for the transport and storage of pesticides are washed and areas where tanks are used to store pesticides - Insecticides, fungicides and herbicides.

**Power Stations** - Polychlorinated biphenyls (PCBs), ash (heavy metals), asbestos.

**Scrap yards** - Heavy metals, residues from drums including chlorinated hydrocarbon solvents.

**Smelters, Foundries, Iron and Steel Works** - Lead, copper, zinc, cadmium, mercury, aluminium, fluorides and acid from smelters and foundry operations, PAHs (Poly Aromatic Hydrocarbons), cyanides, heavy metals and benzene, toluene and xylene (BTX), ethyl benzene, asbestos, naphthalene, tars and ammonium sulphate, from steel works.

**Stock dipping** - eg. Activities on cattle tick and sheep dip sites - Chemicals (mainly tickicides) disposed of in the 1960s and 1970s such as DDT, arsenic, BHC, delnev, carbaryl and ethion; current chemicals in use (eg. Tactic, arnitraz, cypermethrin, bendiocarb, deltamethrin, flumethrin, bayticol, diazimon, chlurfenvinfos and barricade ‘s’).

**Tanneries** - Materials derived from the hides and skins such as grease and dung; chemicals used in the preservation and tanning process such as sulphate, lime, sulphide, hydroxides, chlorides and arsenic based compounds for pre-treatment, tannins, sulphites and chromium salts for tanning.
Termite/ant control - Where substantial areas of soil may be contaminated with organochlorine residues (e.g. Dieldrin, heptachlor, chlordane).

Timber Treatment Works - Creosote, polycyclic hydrocarbons, polycyclic aromatic hydrocarbons (PAHs), copper, chromium, arsenic, boron and pentachlorophenol (PCP) from industries using or making wood preservatives and other organochlorines.

NB: It is not sufficient to rely solely on this list to determine whether a site is likely to be contaminated or not. The list is a guide only.
SECTION 22 - LAND USE BUFFERS

22.1  INTRODUCTION

Rural land use conflicts come in a variety of different forms. Land use buffers are an accepted land use planning tool and have an important role in reducing risk of land use conflict and impacts between incompatible land uses through separation of land uses.

Buffers provide increasing certainty in the planning approval process and minimise the potential for conflict to occur. It needs to be remembered that conflicts can occur between: individual rural activities and/or natural resource users; commercial land users and residents; land uses and the natural environment. The purpose and application of buffers will vary depending upon the individual circumstances. Buffers are an important tool to reduce land use conflicts but are not the only tool. The role and value of buffers can however be undermined if they are reduced by encroaching land use.

Key points
While buffers are important in managing land use conflicts, they do not lessen the need for sound land use planning practices, in particular the strategic planning processes of appropriate zoning and land use strategy development.

As well, they do not replace the need for the individual assessment of a proposal based upon the specific characteristics of the site, the locality and the proposal itself. Aspects such as scale of development, topographic and climatic conditions, environmental attributes and the nature and sensitivity of uses within the locality will influence the required impact mitigation measures and the separation distances that are considered necessary and appropriate in the circumstances. Innovative solutions to land use conflict and interface issues is to be encouraged.

22.2  ROLE OF BUFFERS

Defining minimum buffer distances between incompatible land uses and key natural resource assets is a useful mechanism for reducing and avoiding the threat of land use conflict issues between incompatible land uses. However, buffers have their limitations and need to be used with caution and in combination with other strategies to reduce land use conflict risks and manage interface issues.

Management practices can also be used to reduce land use conflicts, additional to the establishment and maintenance of buffers. There are various documents that prescribe minimum separation distances between incompatible land uses.

Table 22.1 is a guide to minimum separation distances for primary industries.

Table 22.2 outlines the minimum buffers for environmental assets.
Table 22.3 outlines the minimum buffers for other rural land uses. The buffers recommended should be used as a starting point and guide only in the absence of any other or more appropriate separation arrangements.

Local and site specific circumstances and application of relevant policies and specific guidelines will dictate the minimum separation required and what is reasonable and appropriate in the circumstances.

It is not possible to prescribe a minimum buffer distance for all interface situations. In such cases, Tables 1-3 include an alternative approach such as site specific assessment. This site specific assessment is comparable to the assessment that would be typically undertaken to satisfy the requirements of Section 79C of the EP&A Act. The minimum buffer distances need to be used and applied in combination with the planning principles previously outlined to ensure the desired outcome is achieved.

**Key points**

Complying with an adopted buffer setback will help decrease the potential for conflict though it cannot guarantee that land use conflict and interface issues will be totally removed. Variables such as changes in ownership of adjoining lands, changes in land use and management practices and variable climatic conditions can affect the success of land use buffers.

Similarly, complying with a buffer setback does not guarantee that a development proposal will be approved by the consent authority. Mitigation of land use conflict and the application of land use buffers are part of a broader consideration of environmental, social and economic factors which an approval authority must take into account in determining the merits of a given land use proposal.

### 22.3 TYPES OF BUFFERS

Separation buffers are the most common and involve establishing a physical separation between land uses where conflict could arise. The aim of doing this is to reduce the impacts of the uses solely by distance separation, rather than by any physical means such as earthworks or vegetation planting. These can be fixed separation distances or variable.

Fixed separation distances generally apply in the absence of evidence that an alternate lesser buffer will be effective in the circumstances. Variable separation distances are calculated based on the site specific circumstances given factors such as the scale of the development, risk of conflict and risk to the adjoining environment have regard to accepted procedures for assessing these risks.

The odour assessment process in NSW involving stationary sources is a form of a variable buffer as it varies according to specifics of the development and the site.

Biological and vegetated buffers are buffers created by vegetation planting and physical landscaping works. They are most commonly designed to reduce visual impact and
reduce the potential for airborne-created conflict such as chemical spray drift and dust and can help provide environmental protection through vegetated filter strips and riparian plantings.

Landscape and ecological buffers refer to the use of existing vegetation to help reduce the impacts from development. They are mostly used to protect a sensitive environment by maintaining or enhancing existing habitat and wildlife corridors.

Property management buffers refer to the use of alternative or specialised management practices or actions at the interface between uses where the potential for conflict is high. The aim of these buffers is to reduce the potential of conflict arising in the first place. Examples include siting cattle yards well away from a nearby residence to reduce potential nuisance issues, and adopting a specialised chemical application regime for crops close to a residence or waterways with the aim of minimising off-site impacts on neighbours and the environment.

Other buffers
There are other statutory and recommended buffers that can apply to a specific sites and situations. These include:
• bushfire protection buffers
• mosquito buffers
• airport buffers
• power line buffers
• rifle range buffers
• railway line buffers
• cultural heritage buffers.

Key points
People intending to develop within a rural area or within the rural/residential interface should contact council to find out about the buffer requirements specific to their locality, site and the land use proposed.

Similarly, with regard to Aboriginal cultural heritage issues, including significant sites, places and landscapes, it is recommended that you consult with the local Aboriginal Land Council.

Buffer zones and management options will vary according to the significance of a site, its locality, the topography of the land and its relationship to a range of other geographic and culturally relevant factors.

22.4 SUMMARY OF MINIMUM BUFFERS

The following tables summarise the minimum buffers to reduce land use conflicts and protect the values of key environmental assets and rural production areas. The separation distances in the tables represent a synthesis of existing recommended and best practice minimum buffer distances.
As such, and given the varying sources they are drawn from, they represent an approximation of what constitutes best practice and a level of separation that will assist to minimise rural land use conflict at this time while acknowledging that site specific and development specific factors will always play a role in determining the most appropriate level of separation and approaches to conflict avoidance.

It is acknowledged that appropriate buffer distances may vary between proposals based on local topographic, climate, environmental and social considerations. The minimum buffer distances do not apply to existing developments that have already been approved. The conditions of consent placed on these developments form the minimum standards that these developments should achieve.

Where a new dwelling is proposed on an existing vacant lot that has a dwelling entitlement, the setbacks and buffers normally required may not necessarily be appropriate or practical. In these cases, council will need to use discretion to determine the most appropriate location, design and arrangement for the new dwelling. The principle of conflict avoidance should be maintained and the maximum achievable buffer and conflict avoidance measures implemented.

**Table 22.1: Minimum buffers (metres) for primary industries**

(NB: The desirable buffer in the circumstances will be the separation distance and conflict avoidance strategy that protects: community amenity, environmental assets, the carrying out of legitimate rural activities in rural areas and the use of important natural resources.)
**Muswellbrook Shire Council Development Control Plan**

**Section 22**

**Land Use Buffers**

NAI: Not an issue.

SSD: Site specific determination (no standard or simple buffer distance applies).

BMP: Best management practice to apply given site circumstances. Buffer and/or management practice should represent duty of care to the environment and the public and include measures necessary to protect bank stability, maintain riparian vegetation and protect water quality. The incorporation of best management practice measures in property and farm plans is encouraged.

STRC: Subject to relevant codes.

Buffer distances represent the recommendations of the North Coast Land Use Conflict Working Group following a synthesis of existing guidelines and policy. In some cases, specific and relevant guidelines may require larger buffers or lesser buffers than those prescribed may be appropriate in the circumstances.

**Notes:**
1. Subject to environmental assessment in accordance with National Environmental Guidelines for Piggeries (APL 2004) and Assessment and Management of Odour from Stationary Sources in NSW (DEC 2006)
2. Subject to environmental assessment in accordance with _NSW Feedlot Manual_ (NSW Agriculture 1997) or _A Producers Guide to Starting a Small Beef Feedlot in NSW_ (NSW Agriculture, 2001) and _Assessment and Management of Odour from Stationary Sources in NSW_ (DEC 2006).

3. Subject to environmental assessment in accordance with _NSW Poultry Farming Guidelines_ (NSW Agriculture 1996), _NSW Meat Chicken Guidelines_ (NSW Agriculture 2004), _Assessment and Management of Odour from Stationary Sources in NSW_ (DEC 2006).

4. Subject to environmental assessment in accordance with _NSW Guidelines for Dairy Effluent Resource Management – Draft_ (NSW Agriculture 1999), and _Assessment and Management of Odour from Stationary Sources in NSW_ (DEC 2006).

5. Subject environmental assessment in accordance with _Rabbit Farming: Planning and development control guidelines_ (NSW Inter-Departmental Committee on Intensive Agriculture, 1999) and environmental assessment in accordance with _Assessment and Management of Odour from Stationary Sources in NSW_ (DEC 2006).

6. Subject to environmental assessment in accordance with _Assessment and Management of Odour from Stationary Sources in NSW_ (DEC 2006) and any other relevant guideline or policy.

7. Subject to environmental assessment in accordance with _Guidelines for the Development of Controlled Environment Horticulture_ (NSW DPI 2005).


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**Table 22.2: Minimum buffers (metres) for key environmental assets**

<table>
<thead>
<tr>
<th>Environmental Asset</th>
<th>Residential areas</th>
<th>Rural development &amp; on-site waste systems</th>
<th>Education facilities &amp; pre-schools</th>
<th>Rural tourist accommodation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Native vegetation/habitat</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Ecosystem &amp; wildlife corridors</td>
<td>50</td>
<td>50</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Estuaries &amp; major waterways</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Minor waterways</td>
<td>50*</td>
<td>50*</td>
<td>50*</td>
<td>50*</td>
</tr>
<tr>
<td>Wetlands</td>
<td>100</td>
<td>50*</td>
<td></td>
<td>50*</td>
</tr>
<tr>
<td>SEPP 26 littoral rainforests</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>State &amp; regionally significant farmland</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>SSD</td>
</tr>
</tbody>
</table>

* Site assessment is necessary as 50m buffer may be inadequate given groundwater, soil type, topography and site factors.

NAI: Not an issue.

SSD: Site specific determination (no standard or simple buffer distances apply).

STRC: Subject to relevant codes.

Buffer distances represent the recommendations of the North Coast Land Use Conflict Working Group following a synthesis of existing guidelines and policy. In some cases, specific and relevant guidelines may require larger buffers or lesser buffers than those prescribed may be appropriate in the circumstances.
Table 22.3: Minimum buffers (metres) for other land uses

<table>
<thead>
<tr>
<th></th>
<th>Residential areas &amp; urban development</th>
<th>Rural settlement</th>
<th>Education facilities &amp; pre-schools</th>
<th>Rural farming area &amp; recreation area</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste facilities</td>
<td>300</td>
<td>300</td>
<td>300</td>
<td>300</td>
</tr>
<tr>
<td>Sewerage works</td>
<td>400</td>
<td>400</td>
<td>400</td>
<td>400</td>
</tr>
<tr>
<td>Dip sites 1</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Boarding kennels</td>
<td>500</td>
<td>500</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Stock yards including cattle yards</td>
<td>200</td>
<td>200</td>
<td>200</td>
<td>200</td>
</tr>
<tr>
<td>Stock homes/stables 2</td>
<td>SSD</td>
<td>SSD</td>
<td>SSD</td>
<td>SSD</td>
</tr>
<tr>
<td>Effluent re-use area 2</td>
<td>SSD</td>
<td>SSD</td>
<td>SSD</td>
<td>SSD</td>
</tr>
</tbody>
</table>

**SSD:** Site specific determination (no standard buffer distances apply).

**Notes:**
1. The Cattle Tick Dip Site Management Committee (DIPMAC) recommends a nominal 200 metre radius assessment zone around cattle dip sites. Residential development proposed within this zone should be subject to a contaminated lands assessment to determine the extent of contamination and risks posed by contamination. The assessment and any proposed remediation works must also meet the requirements of State Environmental Planning Policy No. 55–Remediation of Land. Urban encroachment onto working cattle dip sites is to be avoided where possible.
3. Subject to assessment in accordance with NSW Department of Environment and Conservation publication Use of Effluent by Irrigation (2003) or local policy as adopted by individual councils.

**22.4.1 Muswellbrook and Denman Sewerage Treatment Plant**

**Objective**

a) To ensure that new development in the vicinity of the Sewerage Treatment Plant is not adversely affected by odour nuisances arising from the operation of that facility.

b) To ensure that the Sewerage Treatment Plant’s location is secured against relocation pressure resulting from future encroachment or intensification of development within the buffer zone.

c) To control the inappropriate development of activities close to the Sewerage Treatment Works Buffer Area to avoid land use conflicts.
Controls

(i) In considering application for residential development in the area identified on the maps below, Council shall not approve any increase in residential density on land over that which exists at present unless it is satisfied that:

(a) the likely adverse impacts of the proposed development will not impact the existing and continued operations of the Sewerage Treatment Works Buffer Area.

(b) the likely adverse impact of the development on the existing and continued operations of the Sewerage Treatment Works Buffer Area is minimal.

(c) the development is sited to maximise the distance between the development and the Sewerage Treatment Works Buffer Area to minimise potential land use conflict.

(d) the development is suitably located to minimise any views of the Sewerage Treatment Works Buffer Area to avoid any likely adverse visual impact.

(e) the development has employed measures that will mitigate the effects from the Sewerage Treatment Works Buffer Area.

(f) the intensity of development is such that it would reasonably be anticipated for the subject site.
Muswellbrook Shire Council Development Control Plan
Section 22
Land Use Buffers

Muswellbrook Sewerage Treatment Plant
Denman Sewerage Treatment Plant
22.5 VARIATION PROVISIONS

In certain circumstances variations from the recommended standard buffer distances may be justified. Councils and government agencies which provide advice or regulate activities have the discretion to approve a reduced buffer or require an increase in the required buffer in the circumstances and to require the implementation of any reasonable conflict avoidance measures.

Buffers can be varied for reasons such as the scale of the proposal, topographic and micro-climatic conditions, technological advancements, operational considerations and arrangements, sensitivity of surrounding lands and land use within the locality.

Applications for variations must be accompanied by justification for the variation and assessment of the implications of the variation of the buffer distance on the values of key environmental assets, rural activities, primary industries and community amenity.

In accordance with the principles of ESD, and in the interest of avoiding and reducing rural land use conflict issues, a precautionary approach should be applied to variations.

Variation criteria could include:
- the extent, nature and intensity of the adjoining land uses
- the operational characteristics of the adjoining land uses
- the sensitivity of the adjoining and surrounding land uses
- off-site effects likely by the adjoining land uses and the potential to cause conflicts
- the potential land uses of the adjoining and surrounding lands
- topographical features and vegetation which may act to isolate and buffer land uses
- prevailing wind and climatic conditions that could help reduce conflicts
- any other specific mitigating factors.

Applications for variations should be made in writing to the council and presented in report style with the development application and be accompanied by relevant details, descriptions, assessments, maps, photos and plans. The application for variation should have regard to any relevant guidelines, codes and policy.

22.6 Land use conflict risk assessment

Land use conflict risk assessment (LUCRA) is an appraisal system developed to identify compatibility of land uses and the potential for conflict between adjoining land uses.

It is designed to help proponents of developments and the determining/consent authorities assess the potential for land use conflict. LUCRA is aimed at complementing development control and buffer requirements by providing a more thorough understanding of likely land use conflict issues at an individual development level so as to inform the application of land use conflict avoidance and buffer measures.
The aim of LUCRA is to address land use interface issues and risks between rural land uses in a proactive manner and before the land use proceeds or before a dispute arises and to highlight or recommend strategies that could help minimise conflict.

By undertaking a LUCRA at the individual property and development scale, the real risk of conflict between one land use and an adjoining rural land use can be more accurately identified. Site specific and relevant conflict minimisation and separation strategies can then be negotiated, proposed, implemented and evaluated.

Under LUCRA a number of issues associated with a proposal and other uses within a locality are considered to identify the potential areas of conflict. A simple ranking system is used to identify how serious the risk is.

The land use conflict risk assessment process outlined is a recommended planning and development design tool to avoid or better manage the potential conflicts between different and incompatible land uses in rural areas.

The process is not meant to be applied literally. Rather it should be used as a guide to how to assess the potential for conflict between land uses and the potential implications of the conflict. You can vary and adapt the process according to each particular situation.

The aim of this part of the DCP is not to prescribe a step-by-step process that should be followed. Rather it is meant to encourage planners and developers to proactively avoid land use conflict scenarios by considering the risk of conflict as early in the land use planning process as possible and be in a better position to address risks of conflict through sound planning, good design and responsible operations.

**Why assess the risk of conflict?**

Conflict can occur between land uses and people in rural areas when the activities or practices associated with one neighbour’s land use interfere with another neighbour’s enjoyment or use of land. It can also occur where there is a real or perceived environmental impact from an activity.

Land use change is the typical trigger for land use conflict. This change can be in the form of an entirely new land use in a rural area, a more intensive land use or where the environment is modified or perceived to be at risk of degradation. More subtle changes in land use, such as the interests and behaviours of a new neighbour can also lead to tensions between neighbours.

Conflict to do with land use and between neighbours can create serious stress for individuals, increase pressures on adjoining landowners and place additional resource demands on local and State government agencies. Managing this conflict retrospectively can be very hard and might not achieve a resolution resulting in ongoing conflict.

Commonly, inequity can be perceived if one party is seen as having achieved a result at the expense of the other party.
Some planning development decisions made in the past have created real potential for conflict between rural land uses and rural neighbours because not enough attention was paid to separating incompatible land uses. It is essential that future land use planning and development decisions be based on an understanding and appreciation of the need to separate incompatible land uses and to adequately manage risk of conflict between land uses at the planning, development design and assessment stages.

22.7 Land Use Buffer Controls

Objectives

a) To ensure that land use proposals are provided with buffers that will minimise the potential for existing or likely future land use conflicts

Controls

(i) In assessing development application for land uses listed in the tables in section 22.4, Council must not approve land uses that would result in non-compliance with the buffers specified unless it is satisfied that there is no potential for existing or future land use conflict to arise.

(ii) In considering the potential for land use conflict, Council must have regard to the variation provisions and a LUCRA prepared in accordance with the provisions of this section by the proponent.

Acknowledgement

Muswellbrook Shire Council would like to thank the NSW Department of Primary Industries for providing the information on which this section of the DCP is based, and allowing reproduction of that information in this DCP.
SECTION 23 – ON-SITE SEWAGE MANAGEMENT SYSTEMS

INTRODUCTION

All developments that have the potential to generate sewage must be connected to an approved sewage system. In the case of land that can not be connected to the Council’s sewage system, a system of on-site sewage management is required. This Section of the DCP outlines how Muswellbrook Shire Council implements the relevant legislation, guidelines and standards for developments that have the potential to generate sewage but are not proposed to connect to the Council’s sewage system.

This Section of the DCP should be read in conjunction with:

- Local Government Act 1993
- Local Government (General) Regulation 2005
- AS/NZ 1546.1:2008 On-site domestic wastewater treatment units, Part 1 – Septic tanks
- AS/NZ 1546.2:2008 On-site domestic wastewater treatment units, Part 2 – Waterless composting toilets
- AS/NZ 1546.3:2008 On-site domestic wastewater treatment units, Part 3, Aerated wastewater treatment systems
- AS/NZ 1547:2012 On-site Domestic Wastewater Management
- AS/NZS 3500.5:2000 National Plumbing and Drainage Domestic Installations
- Muswellbrook Shire Council 2010 On-site Sewage Management Strategy or as amended and any other prescribed guideline.

This Section contains the following subsections:

OBJECTIVES AND CONTROLS
23.1 - LEGAL REQUIREMENTS
23.2 - APPLICATION
23.3 - PERMISSIBLE TREATMENT SYSTEMS
23.4 - PERMISSIBLE DISPOSAL SYSTEMS
23.5 - TEMPORARY FACILITIES
23.6 - COMMERCIAL, TOURIST, AGRICULTURAL & DESIGNATED DEVELOPMENT
23.7 - APPENDICIES

OBJECTIVES AND CONTROLS

Objectives:

- Ensure that development including rezoning, subdivision and single lot developments are not approved unless there is sufficient suitable land for the disposal of effluent on-site.
- Ensure all new applications are adequately assessed in accordance with the guidelines.
- Identify areas of future development for Council’s sewer network.
- Discourage the use of above ground irrigation in areas where environmental harm is likely to result.
To outline the requirements as set out in the 2010 On-site Sewage Management Strategy.
To provide clarity where existing guidelines or standards do not clearly set out requirements.
To promote the sustainable use of water and waste resources.

Controls:

i. On-site sewage management systems are not permitted on properties which are less than 1200m² in area.
ii. Disposal areas for dwellings must account for wastewater disposal of a minimum of 5 person equivalent population.
iii. All developments that will require a new on-site sewage management system that are to be constructed or installed must be the subject of a Wastewater Treatment Application on Council's approved form at the time of application.
iv. Temporary facilities for the purposes of construction works, public events, camping on land where consent is not required and mine crib facilities are approved without an application where the prescribed conditions are met.
v. Developments must set aside an area of land with suitable soil and site properties to allow the development to receive the estimated wastewater loading AND a reserve area of equivalent to 50% of the assessed capacity.
vi. The area set aside must not breach the EHP Guideline buffer distance in relation to water bodies, boundaries and buildings.
vii. Disposal methods proposed must not include surface irrigation where the EHP Guideline buffer distance in relation to water bodies, boundaries and buildings is breached.
viii. A Construction Certificate may not be issued until an adequate effluent disposal area is identified and approved by Council.

DEVELOPMENT CONTROL ELEMENTS

23.1 LEGAL REQUIREMENTS

The lawful disposal of sewage for any development will be either into a sewer of Council, a waste treatment device, a human waste storage facility or a drain connected to any such device or facility. Facilities that are not Designated under the Environmental Planning and Assessment Act or Scheduled under the Protection of the Environment Operations Act are regulated under the Local Government Act.

In considering an application for rezoning, subdivision or development, it is appropriate to ensure that a system of sewage management can be installed and constructed on the site, or an existing system can be modified, to adequately service the development.

The approval of the installation, construction or modification of any subsequent system of sewage management must comply with the:

- The Local Government Act 1993
- Local Government (General) Regulation 2005
- Council’s On-site Sewage Management Strategy and Policy
23.2 APPLICATION

This section of the DCP applies to all land where sewage wastewater may be generated and a connection to Council’s sewer is not available.

23.2.1 REZONING AND SUBDIVISION

In assessing applications to rezone or subdivide land where connection to Council’s sewage system is not proposed the following information must be provided:

✓ A site and soil assessment in accordance with the Guidelines and AS/NZS 1547:2012

✓ A plan of the land to be rezoned/subdivided clearly showing land that is suitable for effluent disposal in relation to:
  • Homogenous soil capability types
  • EHP Guideline buffer distances from water courses, boundaries and roads
  • Soil permeability classes
  • Soil depth and depth to groundwater where it is a moderate or major limitation

✓ The disposal areas should be sized relative to the treatment system proposed and soil type and shall take into account limiting factors. Where a nominal area is provided, an appropriately sized polygon should also be marked on the plans to indicate that sufficient area is available.

Consideration of application:

Applications will not be approved unless the consent authority is satisfied that the lots are of sufficient size and the soils are of appropriate quality for the effective on-site disposal of domestic sewage and waste water.

Consent must not be granted to subdivide land for a purpose that is likely to generate sewage, unless the consent authority is satisfied that:
  I. each lot to be created by the subdivision has an adequate area and is suitable for the disposal of effluent on site, and
  II. the use of on-site sewage management systems will not contribute to an adverse cumulative impact on soils and water in the area.

23.2.2 SINGLE LOT DEVELOPMENT

In assessing development proposals for single lots that may generate sewage the following shall be provided:

✓ A site and soil assessment in accordance with the EHP Guidelines and AS/NZS 1547:2012

The assessment may be the same as that used for a rezoning or subdivision application where it meets the requirements listed above.

Where a suitable site and soil assessment relevant to the property has not already been prepared, the following information shall be provided as a minimum.
A plan to scale, showing the location of:
   a) the sewage treatment facility proposed to be installed or constructed on the premises;
   b) any related effluent application areas including 50% reserve area, and
   c) any buildings or facilities existing on, and any environmentally sensitive areas of, any
   land located within 100 metres of the sewage management facility or related effluent
   application areas, and
   d) any related drainage lines or pipe work (whether natural or constructed) located within
   100 metres of the sewage management facility or related effluent application areas.

Sufficient information to confirm the size of area required for effluent application areas
including reserve area with reference to soil, climate and wastewater flow rate and effluent
good quality.

Please note that in some cases the information required to determine a Development
Application, may be equivalent to the information required for an application under Section 68
of the Local Government Act to install, construct or alter a system of on-site sewage
management. A Wastewater Application may be lodged at the same time as the Development
Application for consideration.

Where the site layout or the potential to generate sewage is revised or modified, updated
information will also be required.

**Consideration of application**

The application will not be approved unless the consent authority is satisfied that:
   a) the development provides an adequate area of land that is suitable for the disposal of
effluent on site, and
   b) the use of on-site sewage management systems will not contribute to an adverse
cumulative impact on soils and water in the area.

In addition the proposal should nominate the location and size of the effluent disposal area and
a 50% equivalent reserve area. The area should have regard to and provide for the relevant
buffer distance specified in the EHP Guidelines specifically distances to water courses and
boundaries.

Where the precise location of the effluent disposal area is not specified, a consent may be
conditioned to require an approval to install as deferred commencement or prior to the issue of
a Construction Certificate.

**23. 3 PERMISSIBLE TREATMENT SYSTEMS**

The installation of the following treatment systems is permitted with the approval of Council:
   • Septic tanks
   • Wet Composting toilets
   • Waterless composting toilets AS/NZ 1546.2:2001
   • Incinerating toilets
   • Aerated Wastewater Treatment Systems (AWTS) AS/NZ 1546.3:2001
   • Bio filters
• Reed beds or constructed wetlands
• Sand filters
• Greywater treatment systems
  - AS/NZ 1546.2:2001 On-site domestic wastewater treatment units, Part 2 – Waterless composting toilets
  - AS/NZ 1546.3:2001 On-site domestic wastewater treatment units, Part 3, Aerated wastewater treatment systems
• Pump out systems will only be permitted on industrial sites.
• Chemical closets are permitted under certain circumstances (see temporary facilities in the On-site Sewage Management Strategy and Policy)

Council will not approve the installation or operation of conventional pit toilets, cease pits or long drop toilets.

23.4 PERMISSIBLE DISPOSAL SYSTEMS

The installation of the following disposal systems is permitted with the approval of Council:
• Absorption trench or Evapo-Transpiration Absorption (ETA) Beds as per AS/NZS 1547:2000
• Sub surface irrigation
• Mound Systems

Surface irrigation will be permitted only where site and soil limitations are minor and where the EHP Guideline buffer distances can be achieved.

23.5 TEMPORARY FACILITIES

a). Construction sites

The installation and operation of temporary facilities for the purpose of amenity for construction workers on construction sites are approved with the following conditions:
1. provision of facilities is a condition of consent;
2. the facilities are self contained;
3. the facilities are not connected to the sewer;
4. the facilities are not on the site for more than 12 months;
5. the storage capacity is greater than the estimated volume of sewage generated in a normal two week period;
6. sewage is collected on a weekly basis or more frequently as required;
7. sewage is disposed of at a lawful wastewater facility;
8. there are no spills or leaks of sewage;
9. the performance standards set out in the Local Government (General) Regulation are met;
10. appropriate standards and NSW Department of Health approvals are complied with.
b). Associated with caravan or tent

The installation and operation of temporary facilities for the purpose of amenity for people occupying a caravan, campervan or tent are approved with the following conditions:

1. the facilities are self contained;
2. the facilities are not on the site for more than 12 months;
3. the operation of the facilities are restricted to no more than 2 days at a time and no more than 60 days (in total) in any single period of 12 months;
4. sewage is removed regularly;
5. sewage is not disposed of in another on-site sewage management system.

c). Temporary events

The installation and operation of temporary facilities for the purpose of amenity for patrons to a temporary event are approved with the following conditions:

1. the facilities are self contained;
2. the facilities are not connected to the sewer;
3. the facilities are not on the site for more than 7 days;
4. sewage is collected at least at twice the frequency of the anticipated capacity;
5. sewage is disposed of at a lawful wastewater facility;
6. there are no spills or leaks of sewage;
7. the performance standards set out in the Local Government (General) Regulation are met;
8. appropriate standards and NSW Department of Health approvals are complied with.

d). Crib facilities on mining sites

The installation and operation of temporary facilities for the purpose of amenity for mine workers on mine sites are approved with the following conditions:

1. provision of facilities is a condition of consent;
2. the facilities are self contained;
3. the facilities are not connected to the sewer;
4. the facilities are not in one location for more than 12 months;
5. the storage capacity is greater than the estimated volume of sewage generated in a normal two week period;
6. sewage is collected on a weekly basis or more frequently as required;
7. sewage is disposed of at a lawful wastewater facility;
8. there are no spills or leaks of sewage;
9. the performance standards set out in the Local Government (General) Regulation are met;
10. appropriate standards and NSW Department of Health approvals are complied with.
23.6 COMMERCIAL, TOURIST, AGRICULTURAL & DESIGNATED DEVELOPMENT

On-site sewage management systems proposed for developments of this nature which are proposed to cater for more than 10 persons, must produce effluent quality of at least a secondary standard however they shall be classified as medium risk systems. Prior to the lodgment of an application for these types of systems, it is advised that the applicant consult with Council to determine any other additional information that may be required.

A development application for development within these categories will require a report addressing the following matters:

- Outline the type and configuration of the system proposed for the development including tank capacities and specifications;
- Provide information including calculations as to how the system will cater for the proposed loading and effluent disposal. The information must reference hydraulic and soil capacities in the system design;
- Provide a water balance analysis for the site;
- Advise of the expected wastewater quality;
- Advise of any adverse chemical or biological inputs into the system and how the treatment device will process these inputs and achieve the accepted effluent quality;
- Demonstrate that the proposed system meets the objectives of this DCP, guidelines and related legislation;
- Provide a design including sizing calculations and construction design regarding the system and effluent disposal area which also includes the details of nearest potential receptors;
- Provide a copy of the service agreement or contract for the ongoing maintenance and servicing of the system. If the system is proposed as a pump out system then a procedure for identifying the need to pump out is required;
- Detail the mitigation measures proposed regarding protection of the system in the event of flood if the land is susceptible.
## 23.7 APPENDICIES

**Appendix A: Required Buffer Distances For Onsite Wastewater Management Systems**

<table>
<thead>
<tr>
<th>System</th>
<th>Required Buffer Distances</th>
</tr>
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</table>
| All land application areas | • 100m to permanent surface waters (e.g. river, streams, lakes etc.),  
                            • 250m to domestic groundwater well,  
                            • 40m to other waters (e.g. farm dams, intermittent waterways and drainage channels). |
| Surface spray irrigation | • 6m if area up-gradient and 3m if area, down gradient of driveways and property boundaries,  
                            • 15m to dwellings,  
                            • 3m to paths and walkways,  
                            • 6m to swimming pools.                                               |
| Surface drip and trickle irrigation | • 6m if area up-gradient and 3m if area down gradient of swimming pools, property boundaries, driveways and buildings. |
| Subsurface irrigation   | • 6m if area up-gradient and 3m if area down gradient of swimming pools, property boundaries, driveways and buildings. |
| Absorption System       | • 12m if area up-gradient and 6m if down gradient of property boundary  
                            • 6m if area up-gradient and 3m if area down gradient of swimming pools, driveways and buildings |

*Source: Environment & Health Protection Guidelines – Onsite Sewage Management for Single Households 1998*
This Section of the Muswellbrook Development Control Plan has been prepared based on the Model Waste Not DCP Chapter 2008, prepared by the Department of Environment and Climate Change (now Environment Protection Authority).

This Section contains the following subsections:
- 24.1 Site Waste Minimisation and Management
- 24.2 Submission/Application Requirements
- 24.3 Assessment Criteria/Controls for All Development
- 24.4 Development-Specific Assessment Criteria/Controls
- 24.5 Appendices

24.1 SITE WASTE MINIMISATION AND MANAGEMENT

Waste and resource consumption is a major environmental issue and a priority for all levels of government within Australia. This is particularly the case as landfill sites become scarce and the environmental and economic costs of waste generation and disposal rise. Government and society alike are exposed to the issue of managing the increasingly large volumes of waste generated by our society.

Sustainable resource management and waste minimisation has emerged as a priority action area and a key in the quest for Ecologically Sustainable Development (ESD). Critical actions in this regard include the following:
- avoiding unnecessary resource consumption
- recovering resources for reuse
- recovering resources for recycling or reprocessing
- disposing of residual waste (as a last resort).

The building and construction industry in particular is a major contributor to waste, much of which is still deposited to landfill. The implementation of effective waste minimisation strategies has the potential to significantly reduce these volumes. Effective waste planning and management can also benefit the builder/developer. Some of the benefits of good waste planning and management include:
- reduced costs
- improved workplace safety
- enhanced public image
- compliance with legislation such as the Protection of the Environment Operation Act 1997 that requires waste to only be transported to a place that can lawfully accept it.

This section aims to facilitate sustainable waste minimisation and management within the Muswellbrook Local Government Area in a manner consistent with the principles of ESD.

The objectives of this section include:
- To minimise resource requirements and construction waste through reuse and recycling and the efficient selection and use of resources.
- To encourage building designs, construction and demolition techniques in general which minimise waste generation.
- To maximise reuse and recycling of household waste and industrial/commercial waste.
• To assist applicants in planning for sustainable waste management, through the preparation of a site waste minimisation and management plan.
• To provide guidance in regards to space, storage, amenity and management of waste management facilities.
• To ensure waste management systems are compatible with collection services.
• To minimise risks associated with waste management at all stages of development.

This section applies to the following types of development that may only be carried out with development consent.
• demolition
• construction
• subdivision
• change in use

24.2 SUBMISSION/APPLICATION REQUIREMENTS

All applications for development, including demolition, construction and the ongoing use of a site/premise, must be accompanied by a Site Waste Minimisation and Management Plan. Waste management facilities proposed as part of the development shall be clearly indicated on the plan accompanying the development application.

Site Waste Minimisation and Management Plan (SWMMP)

A Site Waste Minimisation and Management Plan outlines measures to minimise and manage waste generated during demolition, construction and ongoing use of the site/premises.

In doing so, the SWMMP nominates:
• volume and type of waste and recyclables to be generated
• storage and treatment of waste and recyclables on site
• disposal of residual waste and recyclables
• operational procedures for ongoing waste management once the development is complete.

A SWMMP (and/or site plan) should detail the location of waste management facilities proposed both during construction and for ongoing operation. Appendix A provides a template for the compilation of a SWMMP.

A SWMMP must be submitted for all types of development including demolition, construction and ongoing use of the site/premises; including local development, integrated development and state significant/major project development (as defined by the Environmental Planning and Assessment Act and Amendments). More details are required in SWMMPs for larger and more complex developments.

Where a DA is required, with or without the need for a Construction Certificate (CC), a SWMMP must be submitted at development application stage. Where only a CC is required, a SWMMP shall be submitted at the construction certificate stage. The submission of an updated SWMMP (providing contractor details etc) may be required prior to commencement of works.

When implementing the SWMMP the applicant must ensure:
• Footpaths, public reserves, street gutters are not used as places to store demolition waste or materials of any kind without Council approval.

• Any material moved offsite is transported in accordance with the requirements of the Protection of the Environment Operations Act (1997).

• Waste is only transported to a place that can lawfully be used as a waste facility.

• Generation, storage, treatment and disposal of hazardous waste and special waste (including asbestos) is conducted in accordance with relevant waste legislation administered by the EPA and relevant Occupational Health and Safety legislation administered by WorkCover NSW.

• Evidence such as weighbridge dockets and invoices for waste disposal or recycling services are retained.

• Evidence of compliance with any specific industrial waste laws and protocols, such as the Protection of the Environment Operations Act 1997.

• Materials which are to be disposed of and those which are to be reused/ recycled are to be separated through the demolition and construction process.

• Materials that have existing reuse or recycling markets should not be disposed of in landfill when possible.

In the absence of project specific calculations, the rates specified in Appendix B Waste/Recycling Generation Rates and Council’s current rate of provision of services to residential properties can be used to inform the compilation of a SWMMP.

24.3 ASSESSMENT CRITERIA/CONTROLS FOR ALL DEVELOPMENT

24.3.1 Demolition of Buildings or Structures

The demolition stage provides great scope for waste minimisation. Proponents are actively encouraged to consider possible adaptive reuse opportunities of existing buildings/structures, reuse of materials or parts thereof.

The principal aim of managing this activity is to maximise resource recovery and minimise residual waste from demolition activities.

Objectives

• Optimise adaptive reuse opportunities of existing building/structures.

• Maximise reuse and recycling of materials.

• Minimise waste generation.

• Ensure appropriate storage and collection of waste.

• Minimise the environmental impacts associated with waste management.

• Avoid illegal dumping.

• Promote improved project management.

Controls/Requirements

• A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the demolition application.

• Identify all waste likely to result from the demolition, and opportunities for reuse of materials.

• Facilitate reuse/recycling by using the process of 'deconstruction', where various materials are carefully dismantled and sorted.

• Reuse or recycle salvaged materials onsite where possible.
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- Allocate an area for the storage of materials for use, recycling and disposal (giving consideration to slope, drainage, location of waterways, stormwater outlets, vegetation, and access and handling requirements).
- Provide separate collection bins or areas for the storage of residual waste.
- Clearly ‘signpost’ the purpose and content of the bins and storage areas.
- Implement measures to prevent damage by the elements, odour and health risks, and windborne litter.

24.3.2. Construction of Buildings or Structures

Attention to design, estimating of materials and waste sensitive construction techniques and management practices can achieve significant rewards in managing waste.

The principal aim of managing this activity is to maximise resource recovery and minimise residual waste from demolition activities.

**Objectives**
- Maximise reuse and recycling of materials.
- Minimise waste generation.
- Ensure appropriate collection and storage of waste.
- Minimise the environmental impacts associated with waste management.
- Avoid illegal dumping.
- Promote improved project management.

**Controls / Requirements**
- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the development application.
- The SWMMP shall identify all waste likely to result from the construction process, and the opportunities for the reuse and recycling of these materials.
- Incorporate the use of prefabricated components and recycled materials.
- Allocate an area for the storage of materials for use, recycling and disposal (considering slope, drainage, location of waterways, stormwater outlets and vegetation). Provide separate collection bins or areas for the storage of residual waste and clearly ‘signpost’ the purpose and content of the bins and storage areas.
- Implement measures to prevent damage by the elements, odour and health risks, and windborne litter.
- Ensure that all waste is transported to a place that can lawfully be used as a waste facility. Retain all records demonstrating lawful disposal of waste and keep them readily accessible for inspection by regulatory authorities such as council, Environment Protection Authority or WorkCover NSW.

24.4 DEVELOPMENT-SPECIFIC ASSESSMENT CRITERIA/CONTROLS

24.4.1 Single Dwellings, Semi-Detached and Dual Occupancy

The design of waste and recyclables storage areas within the home and property affect ease of use, amenity, the movement and handling of waste for the life of the development.

This section aims to encourage source separation of waste, reuse, and recycling by ensuring appropriate storage and collection facilities for waste, and quality design of waste facilities.
Objectives

- Maximise reuse and recycling of materials.
- Minimise waste generation.
- Ensure appropriate collection and storage of waste.
- Minimise the environmental impacts associated with waste management.
- Avoid illegal dumping

Controls/Requirements

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the development application.

- Plans submitted with the SWMMP must show:
  - The location of an indoor waste/recycling cupboard (or other appropriate storage space) for each dwelling.
  - The location of an onsite waste/recycling storage area for each dwelling, that is of sufficient size to accommodate Council's waste, recycling and garden waste bins.
- Waste containers are to be stored in a suitable location so as to avoid vandalism, nuisance and adverse visual impacts.
- Where possible, the waste/recycling storage area should be located in the rear yard and minimise the distance of travel to the collection point.
- The waste storage area is to be easily accessible and have unobstructed access to Council’s usual collection point.
  (Note: It is the responsibility of dwelling occupants to move bins to the identified collection point no earlier than the evening before collection day and to then return the bins to their storage area no later than the evening of collection day. Bins are to remain in their on-site storage area at all other times.)

24.4.2 Multi-Unit Dwellings (Town Houses, Flats and Villas)

The design of waste and recycling storage areas within the unit and property affects ease of use, amenity, movement and handling of waste for the life of the development. Multiple households within the property increase challenges with regard to waste volumes, ease of access and operation of waste sorting and removal systems. Resources such as the Better Practice Guide for Waste Management in Multi-Unit Dwellings (available from NSW Office of Environment & Heritage) should be used to inform design of multi-unit dwellings.

This section aims to encourage source separation of waste, reuse, and recycling by ensuring appropriate storage and collection facilities for waste, and quality design of waste facilities.

Objectives

- Ensure appropriate waste storage and collection facilities.
- Maximise source separation and recovery of recyclables.
- Ensure waste management systems are as intuitive for occupants as possible and are readily accessible.
- Ensure appropriate resourcing of waste management systems, including servicing.
- Minimise risk to health and safety associated with handling and disposal of waste and recycled material, and ensure optimum hygiene.
- Minimise adverse environmental impacts associated with waste management.
- Discourage illegal dumping by providing on site storage, and removal services.

Controls/Requirements

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the development application.
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- Plans submitted with a development application must show:
  - The location of an indoor waste/recycling cupboard (or other appropriate storage space) for each dwelling.
  - The location of individual waste/recycling storage areas (such as for townhouses and villas) or a communal waste/recycling storage room(s) able to accommodate Council’s waste, recycling and garden waste bins.
  - The location of any garbage chute/s and interim storage facilities for recyclable materials.
  - The location of any service rooms (for accessing a garbage chute) on each floor of the building.
  - The location of any waste compaction equipment.
  - The on-site path of travel for collection vehicles (if collection is to occur on-site), taking into account accessibility, width, height and grade.

- Waste management solutions should be taken into account early in the design process. Systems should be designed to maximise source separation and recovery of recyclables.

The following minimum collection and storage facilities shall be provided:

- Each dwelling unit should be provided with an indoor waste/recycling cupboard (or other appropriate storage space) for the interim storage of a minimum one day’s garbage and recycling generation.
- Where a development site has limited street frontage (e.g., cul-de-sac, battle-axe lots, or higher density developments) and the area available for kerbside bin storage on collection day is limited, the provision of a communal waste/recycling storage facility may be required.
  (Note: Building designers are encouraged to consult the Better Practice Guide for Waste Management in Multi-Unit Dwellings for individual site solutions.)
- Multi-unit housing in the form of townhouses and villas must include either individual waste/recycling storage areas for each dwelling or a communal facility in the form of a waste/recycling storage room/s designed in accordance with the Better Practice Guide for Waste Management in Multi-Unit Dwellings.
- Residential flat buildings must include communal waste/recycling storage facilities in the form of a waste/recycling storage room/s designed in accordance with the Better Practice Guide for Waste Management in Multi-Unit Dwellings.
- The waste/recycling storage area/s or room/s must be of a size that can comfortably accommodate separate garbage, recycling and garden waste containers at the rate of Council provision.
- For multi-storey developments that include ten or more dwellings, a dedicated room or caged area must be provided for the temporary storage of discarded bulky items which are awaiting removal. The storage area must be readily accessible to all residents and must be located close to the main waste storage room or area.

The following location and design criteria shall apply to collection and storage facilities:

- In townhouse and villa developments with individual waste/recycling storage areas, such areas should be located and designed in a manner which reduces adverse impacts upon neighbouring properties and upon the appearance of the premises.
- There must be an unobstructed and Continuous Accessible Path of Travel (as per Australian Standard 1428 Design for Access and Mobility - 2001) from the waste/recycling storage area/s or room/s to:
  - the entry to any Adaptable Housing (as per Australian Standard 4299 Adaptable Housing - 1995)
  - the principal entrance to each residential flat building
  - the point at which bins are collected/emptied.
In instances where a proposal does not comply with these requirements, Council will consider alternative proposals that seek to achieve a reasonable level of access to waste/recycling storage area/s or room/s.

- Communal waste storage areas should have adequate space to accommodate and manoeuvre Council’s required number of waste and recycling containers.
- Each service room and storage area must be located for convenient access by users and must be well ventilated and well lit.
- Where bins cannot be collected from a kerbside location or from a temporary holding area located immediately inside the property boundary, the development must be designed to allow for on-site access by garbage collection vehicles. (requirements regarding vehicle turning circles and driveway width/gradient are contained in Australian Standard 2890.2 2002/ Planning Facilities – off street commercial vehicles)

In these instances, the site must be configured so as to allow collection vehicles to enter and exit the site in a forward direction and so that collection vehicles do not impede general access to, from or within the site. Access driveways to be used by collection vehicles must be of sufficient strength to support such vehicles.

(Note: As a minimum requirement for collection vehicle access, Council will require indemnity against claims for loss or damage to the pavement or other driving surface. Council may also require indemnity against liabilities, losses, damages and any other demands arising from any on-site collection service. In all cases, a hazard assessment will need to be conducted prior to Council agreeing to undertake the service.)

The applicant is required to address potential site impacts (odour, early morning noise/lighting from garbage truck) upon occupants of the proposed and adjacent developments in accordance with Better Practice Guide for Waste Management in Multi Unit Dwellings.

Proponents are encouraged to discuss this option with Council early in the design process.

- Should a collection vehicle be required to enter a property, access driveways and internal roads must be designed in accordance with Australian Standard 2890.2 Parking Facilities – Off-Street Commercial Vehicle Facilities – 2002.
- If Council waste collectors and/or waste collection vehicles are required to enter a site for the purpose of emptying bins, then site specific arrangements must be in place.
- If bins need to be moved from normal storage areas to a different location for collection purposes, it is the responsibility of agents of the owners’ corporation to move the bins to the collection point no earlier than the evening before collection day and to then return the bins to their storage areas no later than the evening of collection day. Bins are to remain in their on-site storage areas at all other times.
- The design and location of waste storage areas/facilities should be such that they complement the design of both the development and the surrounding streetscape.
- Developments containing four or more storeys should be provided with a suitable system for the transportation of waste and recyclables from each storey to waste storage/collection areas.
- Garbage chutes must be designed in accordance with the Building Code of Australia and Better Practice Guide for Waste Management in Multi Unit Dwellings. Garbage chutes are not suitable for recyclable materials and must be clearly labelled to discourage improper use. Alternative interim disposal facilities for recyclables should be provided at each point of access to the garbage chute system.
- The following management responsibilities shall be addressed:
  - Agents of the owners’ corporation must take responsibility for the management of waste and recyclable materials generated upon the site. Arrangements must be in
place in regards to the management, maintenance and cleaning of all waste/recycling management facilities.

24.4.3 COMMERCIAL DEVELOPMENTS AND CHANGE OF USE

(Shops, Offices, Food Premises, Hotels, Motels, Licensed Clubs, Education Establishments, Entertainment Facilities and Hospitals)

A range of non-residential uses present an array of unique waste minimisation opportunities and management requirements. Flexibility in size and layout is often required to cater for the different needs of multiple tenants as well as future changes in use.

Note: Storage and disposal of liquid waste, such as oils and chemicals, are not covered by this Site Waste Minimisation and Management section.

This section aims to ensure new developments and changes to existing developments are designed to maximise resource recovery (through waste avoidance, source separation and recycling); and to ensure appropriate well-designed storage and collection facilities are accessible to occupants and service providers.

Objectives

- Ensure appropriate waste storage and collection facilities.
- Maximise source separation and recovery of recyclables.
- Ensure waste management systems are as intuitive for occupants as possible and readily accessible to occupants and service providers.
- Ensure appropriate resourcing of waste management systems, including servicing.
- Minimise risk to health and safety associated with handling and disposal of waste and recycled material and ensure optimum hygiene.
- Minimise adverse environmental impacts associated with waste management.
- Discourage illegal dumping by providing on site storage, and removal services.

Controls/Requirements

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the application.
- Plans submitted with the SWMMP must show:
  - The location of designated waste and recycling storage room(s) or areas sized to meet the waste and recycling needs of all tenants. Waste should be separated into at least 3 streams, paper/cardboard, recyclables, general waste.
  - The location of temporary waste and recycling storage areas within each tenancy. These are to be of sufficient size to store a minimum of one day’s worth of waste.
  - An identified collection point for the collection and emptying of waste, recycling and garden waste bins.
  - The on-site path of travel for collection vehicles (if collection is to occur on-site).
- There must be convenient access from each tenancy to the waste/recycling storage room/s or area/s. There must be step-free access between the point at which bins are collected/emptied and the waste/recycling storage room/s or area/s.
- Every development must include a designated waste/recycling storage area or room/s.
- Depending upon the size and type of the development, it may be necessary to include a separate waste/recycling storage room/area for each tenancy.
- Arrangements must be in all parts of the development for the separation of recyclable materials from general waste. Arrangements must be in all parts of the development for the movement of recyclable materials and general waste to the main
waste/recycling storage room/area. For multiple storey buildings, this might involve the use of a goods lift.

- The waste/recycling storage room/area must be able to accommodate bins that are of sufficient volume to contain the quantity of waste generated between collections.
- The waste/recycling storage room/area must provide separate containers for the separation of recyclable materials from general waste. Standard and consistent signage on how to use the waste management facilities should be clearly displayed.
- Waste management facilities must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system.
- Where possible, waste/recycling containers should be collected from a rear lane access point. Consideration should be given to the time of day at which containers are collected so as to minimise adverse impacts upon residential amenity, pedestrian movements and vehicle movements.
- A waste/recycling cupboard must be provided for each and every kitchen area in a development, including kitchen areas in hotel rooms, motel rooms and staff food preparation areas. Each waste/recycling cupboard must be of sufficient size to hold a minimum of a single day’s waste and to hold separate containers for general waste and recyclable materials.
- Premises that discharge trade wastewater must do so only in accordance with a written agreement from the local sewer authority. Trade wastewater may be defined as “any liquid, and any substance contained in it, which may be produced at the premises in an industrial and commercial activity, but does not include domestic wastewater (e.g. from hand-basins, showers and toilets).”
- Premises which generate at least 50 litres per day of meat, seafood or poultry waste must have that waste collected on a daily basis or must store that waste in a dedicated and refrigerated waste storage area until collection.
- Arrangements must be in place regarding the regular maintenance and cleaning of waste management facilities. Tenants and cleaners must be aware of their obligations in regards to these matters.
- Any garbage chutes must be designed in accordance with the requirements of the Building Code of Australia and Better Practice Guide for Waste Management in Multi-Unit Dwellings. Garbage chutes are not suitable for recyclable materials and must be clearly labelled to discourage improper use.
- Food and drink premises that use disposable wrappers or containers should provide waste bins that are appropriate to the waste materials generated. In particular containers that are recyclable should be able to be recycled at the premises of origin.
- Recyclable receptacles are to be provided in premises that provide food and drinks in recyclable containers either pre-packaged or prepared in store. The following items should be recycled within the receptacles:
  - glass bottles
  - paper
  - cardboard
  - aluminium cans
  - steel cans
  - plastic bottles and containers
  - milk and juice cartons
- All waste receptacles should be coloured in conformance with the Australian Standard.
- Signage should be provided that assists patron in the proper sorting of waste and food scraps.
- Appropriate collection services should be contracted to ensure well sorted waste is disposed of accordingly.
24.4.4 MIXED USE DEVELOPMENTS (Residential/Non-Residential)

Where residential and commercial land uses occur within the one building or development waste management will necessitate a balancing of variable demands, including preservation of residential amenity.

This section aims to ensure new developments and changes to existing development are designed to maximise resource recovery (through waste avoidance, source separation and recycling) and to ensure appropriate, well-designed storage and collection facilities are accessible to occupants and service providers.

**Objectives**
- Ensure appropriate waste storage and collection facilities.
- Maximise source separation and recovery of recyclables.
- Ensure waste management facilities are safely and easily accessible to occupants and service providers.
- Ensure appropriate resourcing of waste management systems, including servicing.
- Minimise risk to health and safety associated with handling and disposal of waste and recycled material and ensure optimum hygiene.
- Minimise adverse environmental impacts associated with waste management.
- Discourage illegal dumping by providing on site storage, and removal services.

**Controls/ Requirements**
- A completed Site Waste Minimisation and Management Plan (SWMMP) shall accompany the application.
- The controls at Section 24.4.2. Multi-Unit Dwellings apply to the residential component of mixed-use development.
- The controls at Section 24.4.3. Commercial Developments apply to the non-residential component of mixed-use development.
- Mixed Use development must incorporate separate and self-contained waste management systems for the residential component and the non-residential component.
- In particular, the development must incorporate separate waste/recycling storage rooms/areas for the residential and non-residential components. Commercial tenants must be prevented (via signage and other means), from using the residential waste/recycling bins and vice versa.
- The residential waste management system and the non-residential waste management system must be designed so that they can efficiently operate without conflict. Conflict may potentially occur between residential and non-residential storage, collection and removal systems, and between these systems and the surrounding land uses. For example, collection vehicles disrupting peak residential and commercial traffic flows or causing noise issues when residents are sleeping.

24.4.5 INDUSTRIAL

Industrial developments typically produce a diverse range of waste products. Some of these waste products may be hazardous and require compliance with established laws/protocols that are additional to this section. Other waste products are similar in nature to commercial and domestic waste streams. Mixing waste products limits potential reuse and recycling opportunities and may distribute toxic material through a larger volume of wastes.
This section aims to ensure new developments and changes to existing developments are
designed to maximise resource recovery (through waste avoidance, source separation and
recycling) and to ensure appropriate, well-designed storage and collection facilities are
accessible to occupants and service providers.

Objectives

- Ensure appropriate waste storage and collection facilities.
- Maximise source separation and recovery of recyclables.
- Ensure waste management facilities are as intuitive for occupants as possible and
  readily accessible to occupants and service providers.
- Ensure appropriate resourcing of waste management systems, including servicing.
- Minimise risk to health and safety associated with handling and disposal of waste and
  recycled material and ensure optimum hygiene.
- Minimise adverse environmental impacts associated with waste management.
- Discourage illegal dumping by providing on site storage, and removal services.

Controls/Requirements

- A completed Site Waste Minimisation and Management Plan (SWMMP) shall
  accompany the application.
- Plans submitted with the SWMMP must show:
  - The location of designated waste and recycling storage rooms or areas sized to
    meet the waste and recycling needs of all tenants. Waste should be separated into at
    least 4 streams, paper/cardboard, recyclables, general waste, industrial process type
    wastes.
  - The on-site path of travel for collection vehicles.
- Evidence of compliance with any specific industrial waste laws/protocols. For
  example, those related to production, storage and disposal of industrial and
  hazardous wastes as defined by the Protection of the Environment Operations Act
  1997.

- There must be convenient access from each tenancy and/or larger waste producing
  area of the development to the waste/recycling storage room/s or area/s. There must
  be step-free access between the point at which bins are collected/emptied and the
  waste/recycling storage room/s or area/s.
- Every development must include a designated general waste/recycling storage area
  or room/s as well as designated storage areas for industrial waste streams (designed
  in accordance with specific waste laws/protocols).
- Depending upon the size and type of the development, it might need to include
  separate waste/recycling storage room/area for each tenancy and/or larger waste
  producing areas.
- All tenants must keep written evidence on site of a valid contract with a licensed
  waste contractor for the regular collection and disposal of all the waste streams and
  recyclables which are generated on site.
- Between collection periods, all waste/recyclable materials generated on site must be
  kept in enclosed bins with securely fitted lids so the contents are not able to leak or
  overflow. Bins must be stored in the designated waste/recycling storage room/s or
  area/s.
- Arrangements must be in place in all parts of the development for the separation of
  recyclable materials from general waste and for the movement of recyclable materials
  and general waste to the main waste/recycling storage room/area.
Muswellbrook Shire Development Control Plan
Section 24
Waste Minimisation and Management

- The waste/recycling storage room/areas must be able to accommodate bins that are of sufficient volume to contain the quantity of waste generated between collections.
- The type and volume of containers used to hold waste and recyclable materials must be compatible with the collection practices of the nominated waste contractor.
- Waste management storage rooms/areas must be suitably enclosed, covered and maintained so as to prevent polluted wastewater runoff from entering the stormwater system.
- A waste/recycling cupboard must be provided for each and every kitchen area in the development. Each waste/recycling cupboard must be of sufficient size to hold a minimum of a single day’s waste and to hold separate containers for general waste and recyclable materials.
- Premises that discharge trade wastewater must do so only in accordance with a written agreement from the local sewer authority. Trade wastewater may be defined as “any liquid, and any substance contained in it, which may be produced at the premises in an industrial and commercial activity, but does not include domestic wastewater (e.g. from hand-basins, showers and toilets).”
- Arrangements must be in place regarding the regular maintenance and cleaning of waste management facilities. Tenants and cleaners must be aware of their obligations in regards to these matters.
- Production, storage and disposal of hazardous wastes (such as contaminated or toxic material or products) require particular attention. The appropriate laws and protocols should be observed.
24.5 APPENDICES

Appendix A: Site Waste Minimisation and Management Plan Template
- Demolition stage
- Construction stage
- Ongoing operation

Appendix B: Waste/Recycling Generation Rates

References:

1. MODEL WASTE NOT DCP CHAPTER 2008; A Site Waste Minimisation and Management Chapter for Consolidated Development Control Plans, Department of Environment and Climate Change (2008).


The Better Practice Guide for Waste Management in Multi-Unit Dwellings gives detailed information about waste recycling/storage rooms and facilities. The Guide was substantially reviewed in 2007 and is available on the NSW Office of Environment & Heritage website (www.environment.nsw.gov.au). Further updates will be published as further information from social research and waste stream audits becomes available.

Notes:

1. Relevant drawings are to be submitted to scale, clearly indicating the location of and provisions for the storage and collection of waste and recyclables during demolition, construction and ongoing operation.

2. Muswellbrook Shire Council operates a waste management facility at Common Road, Muswellbrook and a transfer station at Rosemount Road, Denman. Contact details and information regarding waste streams received at the depots can be obtained from Council’s website at www.muswellbrook.nsw.gov.au.

3. Information regarding the waste collection zone map and timetable can be downloaded from Council’s website on www.muswellbrook.nsw.gov.au
## Applicant and Project Details

### Applicant Details

<table>
<thead>
<tr>
<th>Application No.</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Name</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Address</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Phone number(s)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Email</strong></td>
<td></td>
</tr>
</tbody>
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### Project Details

<table>
<thead>
<tr>
<th>Address of development</th>
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</thead>
<tbody>
<tr>
<td><strong>Existing buildings and other structures currently on the site</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Description of proposed development</strong></td>
<td></td>
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</tbody>
</table>

### Declaration:

_I acknowledge that this development achieves the waste objectives set out in the DCP. The details on this form are the provisions and intentions for minimising waste relating to this project. All records demonstrating lawful disposal of waste will be retained and kept readily accessible for inspection by regulatory authorities such as council, Environment Protection Authority or WorkCover NSW._

<table>
<thead>
<tr>
<th>Name</th>
<th></th>
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</thead>
<tbody>
<tr>
<td><strong>Signature</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Date</strong></td>
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### DEMOLITION STAGE

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<thead>
<tr>
<th>Materials on site</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>REUSE AND RECYCLING</td>
</tr>
<tr>
<td></td>
<td>ONSITE * specify proposed onsite reuse or recycling methods</td>
</tr>
<tr>
<td>Type of Material</td>
<td>Estimated Volume (M$^3$ or Kg)</td>
</tr>
<tr>
<td>Bricks</td>
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</tr>
<tr>
<td>Concrete</td>
<td></td>
</tr>
<tr>
<td>Excavation material</td>
<td></td>
</tr>
<tr>
<td>Fencing</td>
<td></td>
</tr>
<tr>
<td>Fixtures &amp; Fittings</td>
<td></td>
</tr>
<tr>
<td>Floor coverings</td>
<td></td>
</tr>
<tr>
<td>Furniture</td>
<td></td>
</tr>
<tr>
<td>Glass</td>
<td></td>
</tr>
<tr>
<td>Green waste</td>
<td></td>
</tr>
<tr>
<td>Metals</td>
<td></td>
</tr>
<tr>
<td>Paving/tiles</td>
<td></td>
</tr>
<tr>
<td>Plasterboard</td>
<td></td>
</tr>
<tr>
<td>Roadbase/aggregate</td>
<td></td>
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<tr>
<td>Roof Tiles</td>
<td></td>
</tr>
<tr>
<td>Timber</td>
<td></td>
</tr>
<tr>
<td>Hazardous/ special waste</td>
<td></td>
</tr>
<tr>
<td>Other – please specify</td>
<td></td>
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<tr>
<td>Other – please specify</td>
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</table>
## CONSTRUCTION STAGE

<table>
<thead>
<tr>
<th>Materials on site</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Material</strong></td>
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</tr>
<tr>
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<td><strong>ONSITE</strong></td>
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<td>Bricks</td>
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<td>Concrete</td>
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<tr>
<td>Roof Tiles</td>
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<tr>
<td>Timber</td>
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<td>Glass</td>
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<td>Excavation material</td>
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<td>Green waste</td>
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<tr>
<td>Fencing</td>
<td></td>
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<tr>
<td>Paving/tiles</td>
<td></td>
</tr>
<tr>
<td>Roadbase/aggregate</td>
<td></td>
</tr>
<tr>
<td>Packaging</td>
<td></td>
</tr>
<tr>
<td>Containers</td>
<td></td>
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<tr>
<td>Paper/cardboards</td>
<td></td>
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<tr>
<td>Hazardous/special waste</td>
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<tr>
<td>Other – please specify</td>
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<td>Other – please specify</td>
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CONSTRUCTION STAGE

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<tr>
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<th>Destination</th>
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</thead>
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<td><strong>REUSE AND RECYCLING</strong></td>
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<tr>
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<td><strong>ONSITE</strong></td>
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<td>Bricks</td>
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<td>Concrete</td>
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<tr>
<td>Roadbase/aggregate</td>
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<tr>
<td>Packaging</td>
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<td>Containers</td>
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<td>Paper/cardboards</td>
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<tr>
<td>Hazardous/special waste</td>
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<td>Other – please specify</td>
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</tr>
<tr>
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</tr>
</tbody>
</table>
### ONGOING OPERATION (Residential, Multi Unit, Commercial, Mixed Use & Industrial)

<table>
<thead>
<tr>
<th>TYPES OF WASTE LIKELY TO BE GENERATED</th>
<th>ESTIMATED VOLUME PER WEEK (Max)</th>
<th>PROPOSED ONSITE STORAGE AND/OR PROCESSING</th>
<th>DESTINATION – RECYCLING OR DISPOSAL SITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example: Glass, paper, organic, food waste</td>
<td>Example: Weight, m³, litres</td>
<td>Example: Waste storage and recycling area, onsite composting, compaction</td>
<td>Example: Recycling, landfill</td>
</tr>
</tbody>
</table>
### Appendix B: Waste/Recycling Generation Rates

**Construction Waste**

‘Rule of Thumb’ for renovations and small home building

- Timber 5-7% of material ordered
- Plasterboard 5-20% of material ordered
- Concrete 3-5% of material ordered
- Bricks 5-10% of material ordered
- Tiles 2-5% of material ordered


**Ongoing Operation**

<table>
<thead>
<tr>
<th>Premises type</th>
<th>Waste generation</th>
<th>Recyclable material generation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Backpackers’ Hostel</td>
<td>40L/occupant space/week</td>
<td>20L/occupant space/week</td>
</tr>
<tr>
<td>Boarding House, Guest House</td>
<td>60L/occupant space/week</td>
<td>20L/occupant space/week</td>
</tr>
<tr>
<td>Food premises:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butcher</td>
<td>80L/100m² floor area/day</td>
<td>Variable</td>
</tr>
<tr>
<td>Delicatessen</td>
<td>80L/100m² floor area/day</td>
<td>Variable</td>
</tr>
<tr>
<td>Fish Shop</td>
<td>80L/100m² floor area/day</td>
<td>Variable</td>
</tr>
<tr>
<td>Greengrocer</td>
<td>240L/100m² floor area/day</td>
<td>Variable</td>
</tr>
<tr>
<td>Restaurant, Café</td>
<td>10L/1.5m² floor area/day</td>
<td>Variable</td>
</tr>
<tr>
<td>Supermarket</td>
<td>240L/100m² floor area/day</td>
<td>Variable</td>
</tr>
<tr>
<td>Takeaway food shop</td>
<td>80L/100m² floor area/day</td>
<td>Variable</td>
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<td>Hairdresser, Beauty Salon</td>
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<td>Hotel, Licensed Club, Motel</td>
<td>5L/bed space/day</td>
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<td>50L/100m² bar area/day</td>
<td>50L/100m² bar area/day</td>
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<tr>
<td></td>
<td>10L/1.5m² dining area/day</td>
<td>50L/100m² dining area/day</td>
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<td>Offices</td>
<td>10L/100m² floor area/day</td>
<td>10L/100m² floor area/day</td>
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<td>Shop less than 100m² floor area</td>
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<td>25L/100m² floor area/day</td>
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<td>Shop greater than 100m² floor area</td>
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<tr>
<td>Showroom</td>
<td>40L/100m² floor area/day</td>
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</tr>
<tr>
<td>Multi-Unit Dwellings¹</td>
<td>80L/unit/week</td>
<td>40L/unit/week</td>
</tr>
</tbody>
</table>

*Sources: Adapted from Waverley Council Code for the Storage and Handling of Waste.*

¹ Appendix A, Better Practice Guide For Waste Management In Multi-Unit Dwellings
Section 25 – Water Management

25.1 Preamble

Council recognises that stormwater is a valuable resource which, when managed appropriately can contribute to the attainment of quality environments and water conservation objectives. New urban development has the potential to be designed and constructed in a way that is complementary rather than antagonistic to the natural environment and the existing built environment. With reference to stormwater this is commonly referred to as water smart development.

Water smart development, is development that is carefully designed, constructed and maintained so as to minimise impacts on the natural water cycle and the existing urban form. It is part of the contemporary trend towards more sustainable solutions that protect the environment and cost less.

Water smart development can help counteract many negative impacts of urban development on the natural water cycle. By utilising appropriate measures in the design and operation of development, it is possible to:

- Maintain and restore natural water balance
- Reduce flood risk in urban areas
- Reduce erosion of water ways slopes and banks
- Improve water quality in streams and ground water
- Make more efficient use of water resources
- Reduce cost of providing and maintaining water infrastructure
- Protect and restore aquatic and riparian ecosystems and habitats.

The intent of this section is to foster the potential for water smart development and encourage more sustainable approaches to urban design and urban water management in Muswellbrook Shire.

25.1.1 Aims

The aims of this section of the DCP are to:

- Ensure stormwater is controlled in a way that minimises nuisances and damage to the adjoining properties
- Manage natural drainage lines and water bodies to sustainably protect the health of the receiving waterway.
- Mitigate pollutants from entering waterways.
- Ensure appropriate easements are provided over existing drainage systems on private property.
- Assist in the efficient use of water.

Development specific design

This DCP section has been written to ensure that water management techniques employed in any new development in Muswellbrook Shire are appropriate to the type of development.
Muswellbrook Shire Development Control Plan
Section 25
Storm Water Management

Development has the potential to increase the impermeable area of the site and this has an impact on the quantity, quality and frequency of stormwater flowing from the site. The rapid, concentrated collection and increased volume and discharge of stormwater can contribute to nuisance localised flooding, increased soil erosion, sedimentation of water ways and destruction of aquatic eco systems. Appropriate stormwater management is essential for maintaining the amenity of urban areas and health of the environment.

Site discharge controls will overflow from time to time. Poorly managed overflows can cause difficulties beyond the site. Accordingly, Council requires that all impervious areas be designed so that overflows do not adversely affect neighbouring properties by way of intensification, concentration or inappropriate disposal across property boundaries.

Where the site falls away from the street and an interallotment drainage line exists, overflows are to be directed to that interallotment drainage line. Otherwise, the overflow may be directed to a dispersion trench subject to favourable geotechnical conditions. Design details for dispersion trenches shall be obtained form an appropriately qualified civil engineer and submitted with applications for approval.

Overflows from paved areas adjacent to the property boundary must be re-directed by a kerb or formed gutter or table drain to drain into an approved piped system or away from neighbouring properties in a manner that will not cause a nuisance.

25.2.1 Applications

A Development Application is to be accompanied by information and concept or preliminary plans demonstrating compliance with the requirements of this section of the DCP.

The general provisions of this section apply to all development proposals, and specific information on residential, non-residential and subdivision requirements will also apply to specific development proposals.

25.2.2 Existing Drainage Systems

Where a drainage system serving other lands is located on the development site, that system is to be protected by an easement in favour of the beneficiary of the drainage system in order to permit the continued use of the drain. At the same time, a drainage easement gives the beneficiary the right to maintain the pipes contained in the easement. This is not practical where there is a building located over the easement.

Objectives

a) To ensure that appropriate long term arrangements are in place to allow for continued use and maintenance of existing drainage systems

Controls

i) New buildings are not to be constructed over or compromise the integrity of drainage lines or easements originating from outside the site.

ii) Where an existing drainage line runs under a proposed building, the drainage line and any associated easement is to be diverted around the
building. Redundant easements are to be extinguished and new easements are to be created.

iii) Where an existing drainage system across the site is retained, access to the existing system is not to be affected by the proposed development. Also, the development is to be designed so as not to degrade the structural integrity of the system.

25.2.3 Flooding and Runoff Regimes

Objectives

a) To ensure that post development runoff reflects pre-development conditions
b) To ensure that development does not result in environmental damage within existing drainage courses and receiving waters

A. Replicating Natural Conditions
Developed catchments typically give rise to large percentages of impervious areas. While there is a general perception that this creates more runoff during heavy rain events, the effect of impervious areas on drainage networks is none more pronounced than during common rainfall. Lighter rain occurs more often than intense (flood producing) rain. However this light rain does not produce runoff from pervious surfaces. On the other hand, developed areas generate significant runoff from these light rain events. Natural creek systems tend to be scoured out by this larger number of runoff events. Whole ecosystems depend on creek beds and banks to survive and in turn these ecosystems deliver positive environmental values.

Controls

(i) Development is to be designed so that runoff from low intensity, common rainfall is equivalent to the runoff from a natural catchment. This can be achieved by intercepting and storing runoff in extended storage detention basins and discharging at greatly reduced rates.

(ii) Alternatively, existing degraded down stream streams can be sympathetically engineered to re-establish a natural riparian eco system that can cope with the changed hydrological regime.

B. Managing peak runoff
Runoff generated by more intense rainfall needs to be managed so that there is no downstream property damage or risk to public safety.

Controls

(i) Developments are to be designed in accordance with “Australian Rain Fall and Run off” and the NSW Floodplain Development Manual.

(ii) Designs to be prepared in accordance with the Muswellbrook Shire Council Handbook for Drainage Design Criteria and the quality assurance requirements of AUS-SPEC are satisfied.
25.2.4 Overflow disposal

Where site discharge controls are used in accordance with this section, overflows will be discharged from those controls from time to time. In any case, Council has a traditional role in ensuring that discharges are managed appropriately so that they do not cause excessive nuisance to others.

Objectives

a) To ensure that stormwater discharges do not cause excessive nuisance to adjoining or neighbouring lands

Controls

(i) Development is to be designed so that overflows do not adversely affect neighbouring properties by way of intensification, concentration or inappropriate disposal across property boundaries. This can be achieved by securing appropriate easements over downstream properties or discharging overflows directly to the street system where feasible.

(ii) Overflows from paved areas adjacent to the property boundary are to be directed by a kerb or formed gutter to drain away from neighbouring properties.

25.2.5 Pollutants

All litter that finds its way onto roads and into drainage systems ends up in creeks, rivers and the ocean. Litter is a continuing threat to healthy aquatic ecosystems and the visual amenity of waterways.

A number of key pollutants present a significant threat to waterways. Dissolved and absorbed pollutants and emulsified hydrocarbons can in some cases be toxic to aquatic ecosystems while nutrients can promote exotic plant growth, including toxic forms of algae. All of these represent a threat to visual amenity, aquatic ecosystems and to recreational values.

Objectives

a) To ensure that stormwater generated from development does not result in pollution of water courses or receiving waters

Controls

(i) Stormwater systems are to be designed to capture and remove all litter larger than 5mm in size.

(ii) The event mean concentration of specific pollutants is not to exceed that in the following table.
Pollutant | Maximum Event Mean Concentration
--- | ---
Sediment | 100mg/L
Hydrocarbons | 500ug/L
Total Nitrogen | 1000ug/L
Ammonia | 15ug/L
Phosphorus | 100ug/L

Note 2: Council recognises that people are less likely to litter on their own dwelling site. Therefore litter traps are not required for houses and multi unit development comprising less than four dwellings.

25.3 RESIDENTIAL DEVELOPMENT

Objectives

a) For runoff from impermeable surfaces to be managed by stormwater source controls that:
   - Contain frequent, low-magnitude flows,
   - Maintain the natural balance between runoff and infiltration, so as to promote appropriate groundwater, soil salinity and stream flow characteristics,
   - Remove some pollutants prior to discharge to receiving waters,
   - Prevent nuisance flows from affecting adjoining properties.

Controls

(i) Stormwater drainage complies with AS 3500.3;
(ii) Development applications comply with BASIX where it applies;
   Further information on commencement dates and details of types of development requiring a BASIX Certificate or to produce a certificate for your proposed development go to www.basix.nsw.gov.au or phone the BASIX Help Line on 1300 650 908;
(iii) Gutters and down pipes are installed to collect roof water;
(iv) Pits are installed to collect water from the low points in yards;
(v) Down pipes and pits are to be connected to the ‘discharge controls’ for the site;
(vi) The site discharge indicator for the development is at least 0.3 determined under Water Smart Practice Note No. 11 – Site Discharge Indicator, and preliminary storm water design details demonstrating ability to comply with this requirement are to be submitted with the development application;
(vii) Soil and erosion plans are to be submitted in accordance with the provisions of section 20 of this DCP;
(viii) For residential development incorporating 20 or more dwellings on the site, a comprehensive water cycle management plan that responds to relevant issues and opportunities for achieving sustainable water cycle outcomes is required to be submitted with the development application; (see end of this section for requirements)
(ix) Soil and water management plans are required to be submitted with the development application for all residential development where site disturbance is greater than 1,000m². (see end of this section for requirements)
25.4 NON-RESIDENTIAL DEVELOPMENT

Objectives

a) For runoff from impermeable surfaces to be managed by stormwater source controls that;

- Contain frequent, low-magnitude flows,
- Maintain the natural balance between runoff and infiltration, so as to promote appropriate groundwater, soil salinity and stream flow characteristics,
- Remove some pollutants prior to discharge to receiving waters,
- Prevent nuisance flows from affecting adjoining properties.

Controls

(i) Stormwater drainage complies with AS 3500.3;
(ii) Development proposals for this type of development are to demonstrate compliance with AUSPEC D5 and the Muswellbrook Shire Council Drainage Design Criteria.
(iii) Development applications comply with BASIX where it applies; Further information on commencement dates and details of types of development requiring a BASIX Certificate or to produce a certificate for your proposed development go to www.basix.nsw.gov.au or phone the BASIX Help Line on 1300 650 908;
(iv) Gutters and down pipes are installed to collect roof water;
(v) Pits are installed to collect water from the low points in yards;
(vi) Down pipes and pits are to be connected to the ‘discharge controls’ for the site;
(vii) The site discharge indicator for the development is at least 0.5 determined under Water Smart Practice Note No. 11 – Site Discharge Indicator, and preliminary storm water design details demonstrating ability to comply with this requirement are to be submitted with the development application;
(viii) Soil and erosion control plans are to be submitted in accordance with the provisions of section 20 of this DCP;
- For non-residential development incorporating facilities to accommodate or employ more than 50 staff, or that involve the use of more than 1 hectare of land for commercial, industrial or special use purposes, a comprehensive water cycle management plan that responds to relevant issues and opportunities for achieving sustainable water cycle outcomes is required to be submitted with the development application; (see end of this section for requirements)
(ix) Soil and water management plans are required to be submitted with the development application for all non-residential development where site disturbance is greater than 1,000m². (see end of this section for requirements)
(x) Industrial development buildings are to be provided with an onsite stormwater retention tank in accordance with the following table:

<table>
<thead>
<tr>
<th>Roof Area</th>
<th>Required Tank Size (L)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal or less than 500m²</td>
<td>10,000</td>
</tr>
<tr>
<td>More than 500m²</td>
<td>22,500</td>
</tr>
</tbody>
</table>

The tank is to be fitted with appropriate water purifying and hydrocarbon/pollutant separation devices to ensure that water used and entering the stormwater system is clean.

Guidelines to refer to
Coombes, P. (2002). Water Smart Practice Note No.4 – Rainwater Tanks. LHCCREMS, Callaghan NSW.
Coombes, P. (2002). Water Smart Practice Note No.5 – Infiltration Devices. LHCCREMS, Callaghan NSW.

25.5 SUBDIVISIONS

This part of the section outlines the objectives and controls that are to be used to assess development proposals for the subdivision of land.

Aims

a) Subdivisions are to be designed, constructed and maintained so that development is undertaken in a manner that addresses the following matters;
b) Minimises adverse impacts on the natural water cycle;
c) Takes into account site constraints and hazards;
d) Reduces downstream flooding and drainage impacts;
e) Promotes more efficient use of water;
f) Removes water-borne pollutants prior to discharge to receiving waters;
g) Controls soil erosion during and after the construction phase.

Controls

(i) Muswellbrook Shire Council has adopted AUS-SPEC and the Muswellbrook Shire Council Handbook of Drainage Design Criteria as the engineering design and construction standard for subdivision works and infrastructure.
(ii) All public stormwater management assets are to be installed outside the riparian zone of creek lines.

25.5.1 Stormwater Collection

Objectives

a) The major – minor principle is a philosophy of stormwater drainage advocated by Engineers Australia in 'Australian Rainfall and Runoff'. It provides for robust, fail-safe design of drainage systems. The methodology is to design surface levels so that very large (major system) 1% AEP (100 year ARI) events can flow around buildings without relying on underground pipes and that the Major drainage system design and construction;
   • retains, and where practical, restores natural water courses, native riparian vegetation, wetlands and other natural landscape features,
incorporates effective measures to manage and treat stormwater and maintain healthy aquatic ecosystems,
satisfies acceptable risk management standards for public safety and flood protection,
within new developments local drainage shall be designed to avoid local flooding in accordance with the aims and objectives of the NSW Floodplain Development Manual. (April 2005)

b) Pipe (minor) systems are installed to cater for frequent surface flows up to 20% AEP (5 year ARI). This balances cost of drainage and occurrence of inundation.

**Controls**

(i) Surface levels are to be graded such that sites are generally free draining with sufficient overflow capacity to ensure that waters do not enter buildings when underground drainage systems are beyond their capacity;
(ii) Drainage pits are to be installed so that nuisance water does not collect at low points;
(iii) Gutters, down pipes and pits are to be connected to the stormwater management system for the site. Australian Standard 3500.3 sets appropriate standards for stormwater collection and is to be followed when constructing new development. AUS-SPEC provides more guidance on stormwater collection and is to be used in subdivision design;
(iv) Public use areas satisfy relevant flood safety criteria as assessed with reference to the NSW Floodplain Development Manual;

**25.6 PLANS**

**Erosion and sediment control strategy and plans**

Sediment continues to be one of the major threats to waterways within the urban area. The construction phase of new development has the potential to generate more sediment than at any other time. Council therefore requires that appropriate erosion and sediment controls be applied during construction. Typically this means a combined strategy that manages materials handling, diversion of clean runoff around the site and filtering of dirty runoff generated by the site.

Erosion and Sediment Control Plans are required for all development as referred to in section 20 of this DCP.

**Soil and Water Management Plans**

Soil and water management are required for all development where site disturbance is greater than 1,000m².

Soil and water management plans usually contain a written report as well as a set of plans and are to detail the following:

i) An assessment of the soil type, particularly its propensity to disbursement; and
ii) An assessment of the constraints and opportunities on the site that limit the site’s sediment generating potential through appropriate controls, including construction staging and timing; and

iii) How upstream ‘clean’ water is diverted around the site using catch drains; and

iv) How runoff generated within the site is intercepted to stop sediment leaving the site utilising sediment basins and flocculation if required; and

v) How materials and waste are going to be managed on the site in order to eliminate their sediment generation potential; and

iv) What specific maintenance requirements are applicable to the relevant controls.

Soil and Water Management plans are to comply with the Department of Housing’s ‘Managing Urban Stormwater: Soils and Construction’ (the “Blue Book”).

Comprehensive Water Cycle Strategy Plans

A comprehensive water cycle strategy is the investigation of hydrological issues affecting the feasibility, performance, sustainability and implementation of development, and which considers or identifies:

- Relevant goals for water quality, natural water balance, water efficiency, vegetation conservation, flood risk management and erosion and sedimentation control (these should be consistent with goals contained in water management plans, catchment blueprint, stormwater management plan, and integrated water cycle management plan.)
- Design principles and management measures that are to be applied so as to meet relevant performance goals, including:
  - Proposed measures to manage site constraints and hazards such as flooding, slope stability, reactive soils, coastal hazards, erosion hazard, salinity, and land contamination,
  - Proposed measures to manage vegetation cover and dependent ecosystems such as wetlands and riparian corridors.
  - Proposed measures to manage water quality, flooding, stream flow, groundwater, soil salinity and water consumption.
  - A development strategy and infrastructure program that integrates water supply, sewerage, drainage, wastewater treatment and reuse, water quality control, flood risk management, open space provision and ecological protection issues.
- Developer contribution arrangements.
- A program for monitoring achievement of performance goals,
- A maintenance schedule for stormwater source controls, with details of responsibilities and proposed enforcement mechanisms (such as covenants), Proposed educational, economic and community initiatives to minimise adverse impacts on the water cycle.
Section 26 – Site Specific Development Controls

26.1 Preamble

Traditionally, stormwater has been considered a nuisance to be disposed of as efficiently as possible. Engineered drainage systems have commonly replaced natural creeks, streams and swamps. This has lead to a drainage system that efficiently transports stormwater and its pollutants to downstream water bodies while at the same time removing natural creek features and processes that improve water quality and reduce annual discharges.

Both the NSW Department of Environment & Climate Change (DECC) and Council recognise that “source control” is an appropriate and effective strategy to deal with this issue. The principal technique is to store an initial volume of rainfall on each new development site in “site discharge controls” emulating the runoff characteristics of more natural site conditions.

Treatment of water borne pollutants is also an integral part of the element and is dependant on the type of site discharge control chosen as different discharge control devices have different inherent treatment characteristics. The storage of the initial volume of water from each rainfall event will ameliorate the effects of increased development on flooding. Flooding is a natural process and will continue regardless of the level of development in the catchment. Widespread compliance with this element will reduce the frequency of minor nuisance flooding.

26.1.1 Aims

The aims of this section of the DCP are to:

- Prevent the export of sediment from the site during construction;
- Set a minimum standard for the collection and management of stormwater on development sites;
- Protect natural drainage lines and waterbodies;
- Prevent litter, sediment, nutrients and oils from entering waterways;
- Ensure stormwater is controlled in a way that minimises nuisance to neighbouring properties;
- Ensure appropriate easements are provided over existing drainage systems on private property; and
- Assist in the efficient use of mains water.
SECTION 27 – WEST DENMAN URBAN RELEASE AREA

Overview

The West Denman Urban Release Area comprises approximately 133 hectares of land which is zoned RU5 – Village Zone under the Muswellbrook Local Environment Plan 2009 (MLEP2009).

The Release Area land has been identified as an extension to the Denman urban area to provide additional serviced land for housing. It is anticipated that the land has the capacity for up to 750 residential lots, which would be developed in stages. The West Denman urban release area is shown in Figure 1.

The Release Area is located to the northwest of the existing town of Denman, and is currently accessed from Almond Street. West Denman is separated from Denman (to the east) by a rail line used by freight (coal) trains. Road crossings of the railway line are located at Kenilworth Street and Ogilive Streets. Most of the housing in Denman and the majority of urban services, including the school, hospital and town centre are located on the eastern side of the railway line. The town’s leisure facilities, including swimming pool, playing fields and golf course, are located on the western side of the railway line.

The closest point of the Release Area is located approximately 1.2 kilometres from the school and the town centre.

The land is gently undulating. It slopes to the east, with low ridges to the north and south and a steep escarpment beyond the DCP boundary to the west.

The Release Area is generally contained in a basin which extends to largely wooded slopes in the west, northwest and southwest. Three catchments affect the land; the smallest catchment in the southeast, the largest catchment in the centre of the land running east-west, and another small catchment in the northeast. These catchments drain to the east via three outlets.

The Release Area has sweeping views of the rural river flats to the east, and of the steep rugged wooded escarpment to the west. This provides a very picturesque setting for the proposed development.

The Release Area is in a number of ownerships. A co-ordinated approach to the development of the land is important to the sound and efficient development of the land. The spatial size of the urban release means that it is likely to take several decades to develop, and accordingly the sequencing of development and staging of the provision of new and upgraded public amenities, services and infrastructure is important to ensure efficient cost effective development.
INTRODUCTION

Application

This Section applies to all land within the West Denman Urban Release Area, as shown outlined with a thick blue line on the map at Figure 1.

Relationship to other Plans and chapters of the Development Control Plan

This Section supplements the provisions of the Muswellbrook Local Environmental Plan 2009, and the other chapters of the Muswellbrook Development Control Plan. Of particular relevance are the provisions of Chapter 6 - Residential Development, and Chapter 7 - Village Zones, of the Muswellbrook Development Control Plan.

For many developments, this Chapter will provide an overview and/or supplementary controls, with most of the controls applying to the development being contained in other chapters of the Muswellbrook Development Control Plan.

Where there is an inconsistency between provisions of this Chapter and those of other Chapters of the Muswellbrook Development Control Plan, this Chapter prevails.

A range of other Council plans, policies and strategies also apply to the Release Area, as may a range of State Government plans, policies and strategies.

Council officers should be consulted if there is doubt as to the applicability of a specific policy, plan, strategy or provision to the Release Area.

Development proponents are advised to seek professional advice regarding the requirements that may apply to their proposal.

Note: all figures in this Section are conceptual and schematic in nature.

Figure 1: West Denman Urban Release Area and DCP boundary
Purpose

The purpose of this Chapter is to provide detailed controls to guide development in the West Denman urban release area.

Aim

The aim of this Chapter is to:

a) Ensure that new development maintains the village character of Denman.
b) Ensure the new development provides a seamless extension to the existing urban area of Denman.
c) Ensure the release area develops in a coherent well co-ordinated manner.
d) Facilitate the efficient provision of services to the Release Area.
e) Provide a conceptual development pattern.
f) Provide an access plan for vehicles, bicycles and pedestrians.
g) Provide a framework for water management.
h) Provide an open space and biodiversity plan.
i) Provide a framework for the logical and orderly extension of infrastructure.
j) Provide objectives and controls which complement and supplement those of the other chapters of the Muswellbrook Development Control Plan.

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27.1 STRUCTURE PLAN

The Structure Plan at Figure 2 shows the basic development principles of the site.

It shows the development concept that applies to West Denman. It provides guidance for individual developments to enable them to contribute to an overall development plan.

Even though the zoning of the land permits a wide variety of land uses, it is considered that the development will consist almost entirely of residential uses (which include large lot residential). It is unlikely that a shop or similar commercial land use will develop because the Denman town centre is very close, and because there is no through traffic to expand the commercial catchment beyond the adjacent residential area. If commercial development were to be proposed, the preferred location is on Almond Street south of the riparian area, and north of Kenilworth Street, in order to maximise its viability and convenience.

Objectives:

a) The development of West Denman is well co-ordinated across a number of land parcels and owners.

b) West Denman is a seamless extension of the existing urban area.

c) A quality development is achieved.

Controls:

(i) Consent will not be granted for development which is not generally consistent the Structure Plan at Figure 2.

(ii) Infrastructure provision should be optimised at a catchment level in order to maximise sharing and the ease of expansion of infrastructure and utilities.

(iii) Subdivision layout must not prejudice the ability of neighbouring sites to deliver the outcomes sought by this Plan, including infrastructure efficiencies, housing yield, environmental enhancement and connectivity.

(iv) Land for potential urban residential development within the area designated for a minimum 750 sq. m lot size may be considered for rural residential or large lot "lifestyle" subdivision if environmental studies demonstrate that lower residential densities are a desirable use of the land due to biodiversity, slope, and noise or landscape buffering.
Figure 2: West Denman Structure Plan

Consider larger lots as buffer to rural land and vegetation.

Emergency access to the Golden Highway.

Highway noise considerations.

Railway noise considerations.

Consider larger lots to provide north south vegetation link.

Grey Gum Road.

Almond Street.

Kemilworth Street.

N.

Legend:
- Minimum 750 sq m lots
- Minimum 2000 sq m lots
- Drainage reserve and riparian corridor
- Biodiversity significance
- Preferred local park and playground
- Sub arterial roads
- Urban Collector roads
- Off road cycleways
- Road access points
- Railway and highway noise consideration.
27.2 STAGING PLAN

The Staging Plan provides a guide to the sequence of land development.

Objectives:

a) To ensure that development of the land is efficient and cost effective.
b) To facilitate the logical expansion of urban infrastructure.
c) To ensure residents have access to urban infrastructure and services
d) To provide a mechanism for flexibility in the staging of development where this is justified and the timing impacts are mitigated.
e) To provide the basis for the equitable sharing of infrastructure costs.

Controls

(i) The development of land is to be generally consistent with the Staging Plan shown in Figure 3.
(ii) Each Stage may be subdivided into substages. The substages should be identified in a report to accompany the development application for subdivision, together with a description of the substages and the impact of the substage sequence on the provision of infrastructure.
(iii) The upgrading of Almond Road to urban standards is an early objective of the Staging Plan.
(iv) Development of land inconsistent with the Staging Plan can occur if the proposed sequence is justified by a supporting study, to the satisfaction of the consent authority. The supporting study must be lodged prior to or with the relevant development application.
(v) At a minimum, the issues to be addressed in a supporting study to vary the staging sequence include:
   - Impacts on the availability of urban services and infrastructure including open space, pedestrian and cyclist to residents.
   - Impacts on the development of other land/development stages
   - Servicing strategy.
   - Cost impacts on other parties, including servicing authorities.

Note: If the timing of development is inconsistent with the Staging Plan there may be implications for the quantum or timing of infrastructure works or contributions required as a result of that development, so as to ensure other stages are not disadvantaged or to ensure that residents have sufficient access to urban services and infrastructure.

(vi) Clause 7.4 (2) of the Muswellbrook Local Environmental Plan 2009 states that development consent must not be granted for subdivision development on land in the RU5 Village Zone until the land is adequately serviced with water and sewerage, or arrangements have been made to service that are satisfactory to the consent authority.

(vii) All land in West Denman is to be serviced by reticulated water and sewerage services unless a servicing study and strategy is undertaken which justifies an alternative means of providing such services. The servicing strategy must be to the satisfaction of the consent authority prior to the granting of development consent.

(viii) Any offsite easements and infrastructure required to enable runoff from any Stage of the Urban Release Area to be conveyed to waterways in a managed fashion are to be registered and the infrastructure connected prior to the release of Linen Plan for that Stage.
27.3 SERVICING STRATEGY

Figure 4 shows the conceptual hydraulic servicing strategy for West Denman. In general, water supply will be initially available from the south western corner of the release area, and the sewer will drain to the southeastern corner.

Objectives:

a) To ensure services are available in a cost effective manner.
b) To minimize the life cycle costs of the provision and operation of service infrastructure.
c) To connect all lots to reticulated services.

Controls:

(i) Consent will not be granted for the subdivision of land unless a Servicing Strategy has been lodged to the satisfaction of the consent authority.
(ii) The required Servicing Strategy should address:
   • The provision of hydraulic, telecommunication and electricity services.
   • Proposed utilities networks and their relationship to adjacent properties, including links to adjacent properties.
   • Capacities of the utility services and the impact of the proposed development on remaining service capacity.
   • Options for utility service provision and a preferred option.
   • Implications of the servicing options for other landowners in the release area.
   • Proposed cost sharing arrangements with other landowners for any
shared utility infrastructure including facility upgrades.
- Details of consultations with servicing authorities in the preparation of the Servicing Strategy.
- Compliance with Council’s overall servicing strategy for Denman (note: a preliminary draft Servicing Strategy for hydraulic services is shown at Figure 5).

(iii) Development will be required to pay for the upgrade of lead in and other major infrastructure, such as carrier mains, pumping stations, reservoirs and treatment plants.

(iv) Variations from the Council’s Servicing Strategy may only occur if justified by a supporting study to the satisfaction of the consent authority. At a minimum, the supporting study must addresses the environmental, capital and operational costs and implications of the variation including the implications for other development stages.

(v) The provision of easements may need to occur if required by the consent authority. Easements will be required to be negotiated between adjoining landowners. Prospective developers should contact Council regarding Council’s interest in being involved in specific negotiations.

Figure 4: Servicing concept plan

[Diagram showing Servicing concept plan with labels such as Pumping Station, Possible additional pumping stations, Construct carrier main to the sewerage pumping station1 and treatment works, and different lines indicating existing water, Stage 1 Water, Stage 2 Water, Stage 3 Water, Stage 1 Sewer, Stage 2 Sewer, Stage 3 sewer with direction markers.]
Figure 5: Preliminary draft servicing strategy for Denman
27.4 TRANSPORT

Figure 6 shows the concept transport plan for West Denman.

Objectives

a) To ensure residents have access to safe convenient vehicular, pedestrian and bicycle networks.
b) To maximise vehicular, cyclist and pedestrian connectivity within the release area and to other parts of Denman.
c) To provide safe crossings of the railway line.
d) To ensure railway crossings are designed and constructed to the ARTC’s requirements, based on an assessment of rail and vehicle movements.
e) To provide for safe and convenient pedestrian and bicycle movement throughout the release area and to important destinations in Denman.
f) To encourage low vehicle speeds throughout the Release Area.
g) To discourage “shortcuts” from the Golden Highway through the release area to Denman and other localities.
h) To ensure that the impact of development on transport infrastructure outside of West Denman is considered.

Controls

(i) Consent will not be granted for the subdivision of land unless a Transport Management Plan has been lodged to the satisfaction of the consent authority. The Transport Management Plan should address such matters as traffic volumes, triggers for the provision of infrastructure and upgrades, an assessment of the impact of the development on the road system internal and external to the site and Urban Release Area, railway crossings, pedestrian and cyclist networks, identification of road upgrades, intersection upgrades and the cumulative impact of development on the road network, at a minimum.

(ii) The road, cycle and pedestrian network is to be generally consistent with the concept plan shown in Figure 6.

(iii) The positioning and design of movement networks must give priority to:
- facilitating efficient walking, cycling and public transport networks and;
- retaining and complementing natural topography, such as views and drainage.

(iv) A subdivision certificate will not be issued to a specific development unless pedestrian and cycle links consistent with this DCP link to the existing urban area of Denman at the same time as the initial development of that land.

(v) An off road shared pedestrian path/cycleway is to be constructed as shown in Figure 6 and is required to connect to the existing shared off road pedestrian paths/cycleways to the town centre and school.

(vi) Alternative access points other than those identified in Figure 6 are to be supported by a traffic study to the satisfaction of the consent authority.

(vii) Almond Street is to be traffic calmed to reduce vehicle speeds and to ensure the safety of four way road intersections. A mixture of roundabouts and four way stop signs is encouraged. Roundabouts should be designed to be compatible with the traditional rural town
rectilinear road pattern. The preferred location of roundabouts is shown in Figure 6. Any change to the preferred location of roundabouts or other road infrastructure is to be addressed in a traffic study to accompany the development application for subdivision, and is to be to the satisfaction of the consent authority.

(viii) The upgrading of Almond Street and Grey Gum Road to urban standards is an early objective of this Plan.

(ix) Subdivision road networks should have no dead ends unless unavoidable. The use of low speed “share ways” to connect cul de sac heads and the like is acceptable.

(x) A number of offsite road, intersection, cycleway and pedestrian networks upgrades will be required in conjunction with the development of the land, such as those shown in Figure 7. A Section 94 Plan will support these works.

(xi) A pedestrian facility including pedestrian gates is to be provided in accordance with ARTC requirements at the railway crossing at Ogilive and Kenilworth Streets, to a standard which maximises safety to children.

(xii) The Ogilive Street vehicular rail crossing is to be upgraded to a boom gate control.

Figure 6: Transport Concept Plan
27.5 OPEN SPACE

Objectives

a) Open Space is to provide for a variety of recreational, aesthetic and environmental purposes.
b) Open space should be easily maintained.
c) Open space should provide informal and formal settings.

Controls

(i) Open space is to be provided generally in accordance with the Open Space Concept Plan at Figure 8.

(ii) A local park with an area of not less than 0.5ha with various facilities, including a playground should be provided, preferably at the location shown in the Open Space Concept Plan

(iii) Multiple use open space should remain usable for its intended purpose, and not compromised for extended periods by such matters as wet soils.

(iv) Riparian vegetation along the main watercourse drainage reserve is to be re-established using native species.

(v) The drainage reserve riparian corridor is not to be less than 40 metres in width (i.e. 20m either side of the re-established ephemeral creek) or 20 metres, as relevant, at any point unless otherwise justified to the satisfaction of the consent authority and as required by the NSW Office of Water.

(vi) Open space areas are to be linked by pedestrian and cycle paths to provide an accessible network of open space.

(vii) Where possible, roads or laneways/shareways are to border open space areas in order to provide passive surveillance and access.
27.6 LANDSCAPE

Objectives

a) Existing native vegetation is to be retained and enhanced where possible.
b) West Denman is to exhibit a landscape similar to the existing urban area of Denman.
c) The scenic quality and local character of the area is maintained.
d) Landscaping should showcase and/or frame the rural vistas to the east, and the wooded escarpment to the west, where possible.
e) Vegetation links are re-established along the western boundary of the site between existing areas of woodland.

Controls

(i) Consent shall not be granted for the subdivision of land unless a landscape plan has been lodged to the satisfaction of the consent authority. A concept plan may be acceptable at the development application stage and a detailed plan at the construction certificate stage
Muswellbrook Shire Development Control Plan

Section 27

West Denman Urban Release Area

Version date – August 2012

27.7 WATER MANAGEMENT

Objectives

a) The water balance of West Denman is to be as close as possible to natural conditions.

b) Drainage should be generally directed away from the existing urban area of Denman to the maximum feasible extent

c) Water management should seek to provide an effective treatment train in the context of minimising Council’s long term maintenance requirements. The treatment train should consider source controls, water quality, water volume, on and off site detention, instream treatment measures, salinity management and the implications for receiving areas.

d) Runoff generated by more intense rainfall causes no downstream property damage or risk to public safety and to mimic the existing flow regime as near as possible.

e) Easements will be required to be negotiated between adjoining landowners prior to approval of development construction certificate.

Controls

(i) Consent will not be granted for the subdivision of land unless a Water Management (stormwater) Strategy has been lodged to the satisfaction of the consent authority.

(ii) Water management strategies are to be generally consistent with the Water Management Concept Plan at Figure 9. Note: Table 1 of detention volumes and treatment areas is conceptual and subject to detailed calculation.
(iii) The quality and quantity of runoff of each stage of development is to be equivalent to the pre development state. Council will define each stage for the purposes of this Control.

(iv) Development of land inconsistent with the Water Management Strategy can occur if the proposed measures are justified by a supporting study, to the satisfaction of the consent authority. The supporting study must be lodged prior to or with the relevant development application.

(v) The supporting study is to include (but not limited to):
   - Hydrological and flood analysis of the proposed strategy
   - Impact on the overall Water Management Concept Plan
   - Impact on other future urban development within West Denman
   - Cost impact on Council (recurrent) and other future urban development (capital)
   - Impact on upstream and downstream land and buildings
   - Environmental impact.

(vi) The water management strategy for the main watercourse is to be designed to appear as a natural stable stream in a riparian corridor.

(vii) Stormwater strategy and design is to consider the context of the site along with upstream and downstream impacts.

(viii) Water management strategies should aim to achieve a:
   - Reduction of erosion.
   - Reduction of flow velocity.
   - Reduction of runoff volume through at source controls and water quality treatment.
   - Maximum infiltration (note: the nature of the soils at West Denman may limit infiltration).
   - Salinity management (note: a balance is required between this and the objective above and Council’s advice should be sought in this regard)
   - Drainage easements may need to be provided.

(ix) Contributions will be required towards the acquisition of a downstream drainage easement as shown in Figure 9. A Section 94 Plan will be developed to provide the funding mechanism for the levying of such contributions.

(x) Development is to comply with the provisions of Section 25 (Stormwater Management) of the Muswellbrook Development Control Plan.

(xi) Easements may need to be created in circumstances where water management infrastructure, such as detention basins, are located on land not included in that development. Easements are to be negotiated between adjoining landowners as required prior to the approval of the construction certificate of the development.
Figure 9: Conceptual Water Management Strategy

Table 1: Detention volumes and treatment areas

<table>
<thead>
<tr>
<th>Site</th>
<th>Lot/DP</th>
<th>Detention volume</th>
<th>Treatment Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lot 1 DP 128061</td>
<td>2700</td>
<td>2940</td>
</tr>
<tr>
<td>2</td>
<td>Lots 118,119,120, 121 DP 750924</td>
<td>15600</td>
<td>13400</td>
</tr>
<tr>
<td>3</td>
<td>Lot 1</td>
<td>5825</td>
<td>7700</td>
</tr>
<tr>
<td>4</td>
<td>Lot 122 DP 750924</td>
<td>2500</td>
<td>4200</td>
</tr>
<tr>
<td>5</td>
<td>Lot 2 DP 616013</td>
<td>1035</td>
<td>1200</td>
</tr>
<tr>
<td>6</td>
<td>Lot 10 DP 1118866</td>
<td>683</td>
<td>500</td>
</tr>
<tr>
<td>7 (not included in this DCP)</td>
<td>Lot 2 DP1031568, Lot 30,31 DP 1146210, Lot 101, 102, 103 DP1115573</td>
<td>4030</td>
<td>7900</td>
</tr>
</tbody>
</table>

Notes:
1. Easement includes 5m wide track, batter slopes of 1V:6H and 0.3m freeboard.
2. Includes a nominal 6m channel width and required riparian zone. 100 year flows are contained in this width.
3. Channel geometry to be confirmed. Flow depth is 0.38m deep. Allow for 6m track. Batter slopes of 1V:6H and 0.3m freeboard.

Note: Schematic concept only. Not for construction.
Figure 10: Existing site stormwater characteristics

For reference only
27.8 BUILT FORM

Objectives

a) To provide a built form consistent with that of a rural town or village.
b) To locate dwellings where the impact of road or rail generated noise or vibration is minimised.

Controls

Note: Lot size controls are shown in the Muswellbrook Local Environmental Plan 2009.

(i) New dwellings with frontage to Almond Street and Kenilworth Street extended should have the appearance of a detached dwelling in order to maintain the low density streetscape typical of Denman.

(ii) Dwellings should be designed, sited and constructed to minimise the impact of highway or rail noise and vibration. This may include identifying designated building footprints on noise affected lots, or setbacks and larger lots adjacent to noise sources (see also the Section on Rail and Highway Noise and Vibration).

(iii) Development along the west and north-western boundary of the DCP area should give special consideration to managing the potential bushfire risk arising from the Environmentally Sensitive Land - Biodiversity in or adjacent to those localities.

27.9 BIODIVERSITY

Objective

Biodiversity is maintained or improved through the conservation and rehabilitation of important vegetation and habitat.

Controls

(i) Consent will not be granted for the subdivision of land identified in the Muswellbrook Local Environmental Plan as Environmentally Sensitive Land – Biodiversity unless a Vegetation Management Plan has been lodged to the satisfaction of the consent authority.

(ii) The Vegetation Management Plan is to include:
   - Details of the location of significant vegetation, including trees with hollows.
   - The location of building footprints relative to significant vegetation.
   - Details of the proposed rehabilitation of significant vegetation.
   - Details of the proposed ongoing vegetation management regime in the context of the proposed subdivision.

(iii) Measures such as larger lot size, building envelopes, restrictive covenants (i.e. 88b) and voluntary conservation agreements are to be used to protect biodiversity significance of the land over the long term. These measures are to be specified in the development application for the subdivision of the relevant land, and must be to the satisfaction of
the consent authority prior to the granting of development consent.

(iv) The main watercourse should be rehabilitated with suitable native species and landscape treatments as a riparian zone.

(v) Larger lots are to be considered along the western edge of the urban release area in order to re-establish vegetation links between existing areas of woodland to the southwest and northwest of the site.

27.10 RAIL AND HIGHWAY NOISE AND VIBRATION

Objective:

To ensure that future residences and other noise sensitive land uses are not unreasonably affected by railway or highway noise or vibration.

Controls

(i) Consent shall not be granted for the subdivision of land, or for noise sensitive development (including but not limited to dwellings, places of public worship, child care centres, hospitals, and educational establishments) within 200 metres of the Golden Highway or within 200 metres of the railway line unless:
   - a noise and vibration assessment has been carried out, and
   - suitable noise and vibration attenuation measures are identified

(ii) The noise and vibration assessment and proposed measures must be to the satisfaction of the consent authority prior to the granting of development consent.

(iii) In the case of the Golden Highway, the development when completed is to meet the requirements of AS 3671-1989 Acoustics- Road Traffic Noise Intrusion – Building, Siting and Construction intrusion – Building Siting and Construction.

(iv) In the case of the railway, the development is to meet a suitable noise and vibration intrusion standard specified by the consent authority (guidance can be obtained from the NSW Department of Planning and Infrastructure publication “Development Near Rail Corridors and Busy Roads- Interim Guideline”, noting that this publication is principally directed to more intensively developed urban areas with a higher ambient noise level).

(v) Alternatively, in the case of noise and vibration levels affecting residential development, it is demonstrated that the following LAeq levels will not be exceeded:
   - in any bedroom in a residential building—35 dB(A) at any time between 10 pm and 7 am.
   - anywhere else in the building (other than a garage, kitchen, bathroom or hallway)—40 dB (A) at any time.

(vi) Noise and vibration attenuation measures undertaken to comply with the conditions of development consent for a subdivision may obviate the need for additional noise or vibration assessments and attenuation measures for subsequent developments on the land.
27.11 MINE SUBSIDENCE

Objective:

To avoid and manage the impacts of potential mine subsidence.

Control:

The Urban Release Area is located with a declared Mine Subsidence District. Accordingly, consent will not be granted for development unless prior approval has been obtained from the Mine Subsidence Board under the provisions of the Mines Subsidence Compensation Act 1961.