

## Chapter 11

# Buffer Areas



# 11 Buffer Areas

## 11.1 Objectives of this Chapter

The objective of this Chapter is to minimise land use conflicts between potentially incompatible land uses through the establishment of appropriate buffer areas.

## 11.2 Definitions

**Terms not defined in Local Environmental Plan (LEP) 2012 dictionary are defined in this section.**

**buffer area** means an area of prescribed width between adjoining land uses or developments that is created for the purpose of mitigating the impacts of one or more of those land uses, and in which the carrying out of certain development is restricted.

**encroaching development** means any development, including subdivision, the erection of a building or the carrying out of an activity on land to which this Plan applies, which is proposed on land adjacent to an existing development or land use, or to land previously zoned for a specific purpose under the Lismore LEP 2012.

**gully** means channels which are above the water table at all times and therefore do not receive spring or groundwater flows. They carry water only during and immediately after rain. They may be dry for extended periods but subjected to flash flooding during high intensity storms.

**watercourse** means any river, creek, stream or chain of ponds, whether artificially modified or not, in which water usually flows, either continuously or intermittently, in a defined bed or channel, but does not include a waterbody (artificial).

## 11.3 Conflicts in Land Uses

Conflicts in land use may occur where incompatible development encroaches into areas where established land use practices associated with a particular land use or activity are likely to lead to a real or perceived loss of amenity for residents. Typical external effects which may be generated by certain land uses and which could be considered to be incompatible with residential development include noise, odours, chemical sprays, dust etc. If these effects are not taken into account at the development application stage, pressures can be exerted on landowners to modify existing land use practices. This could affect the economic viability of an established land use or industry and in some cases could result in the sterilisation of a resource.

Development applications should address Lismore LEP 2012 Clause 5.16 *Subdivision of, or dwellings on, land in certain rural, residential or environmental protection zones* where relevant, with regard to minimising land use conflict between existing and proposed development.

## 11.4 Recommended Buffers

The most appropriate means for reducing potential land use conflicts is to provide for a physical separation between incompatible land uses in the form of a buffer area. The purpose of a buffer area is to provide a sufficient setback requirement such that impacts are reduced to the extent that they do not adversely affect the adjoining land use. The buffer distance generally applies when the residential development and the adjoining potentially conflicting land use are located on different allotments.

It is the responsibility of the “encroaching development” to provide the required buffer areas. Council may require that an Instrument under Section 88b of the *Conveyancing Act 1919* be placed on the title referencing the buffer and any management requirements.

## Variations

In certain circumstances variations from the recommended standard buffer distances may be justified. Council has the discretion to approve a reduced buffer or require an increase in the buffer

distance or to require the implementation of any reasonable conflict avoidance measures. Development applications incorporating a reduced buffer distance should incorporate a land use conflict risk assessment (LUCRA) to be prepared by a suitably qualified person. Supporting technical reports such as noise or odour assessments and the like may be required to support the variation that must be prepared by a suitably qualified person. Information about preparing a LUCRA is available at:

[https://www.dpi.nsw.gov.au/data/assets/pdf\\_file/0018/412551/Land-use-conflict-risk-assessment-LUCRA-guide.pdf](https://www.dpi.nsw.gov.au/data/assets/pdf_file/0018/412551/Land-use-conflict-risk-assessment-LUCRA-guide.pdf)

### **State or Regionally Significant Farmland**

Areas of agricultural land in the Lismore LGA have been mapped as State or Regionally Significant Farmland based on physical attributes such as soil type, and the absence of constraints such as slope and flooding. It is important that urban, rural residential development and other incompatible development is directed away from this land to protect the resource base and ensure non-farming uses do not generate land use conflict. No variation to buffers will be approved for encroaching development on land adjoining State or Regionally Significant Farmland unless exceptional circumstances apply. For example, a variation to a buffer may be considered in recognition of the limitations of the broad scale State or Regionally Significant Farmland mapping only if supported by a technical report prepared by a suitably qualified person demonstrating a lack of agricultural capacity of the site. Where applicable, such technical reporting will be referred to the Department of Primary Industries for peer review.

This mapping is available to the public at:

<https://lismore.nsw.gov.au/our-online-interactive-mapping-services-gis>

### **Intensive Plant Agriculture - Horticulture**

Horticulture is an important industry on the North Coast and makes a significant contribution to Lismore's economy. Lismore City is the third highest producing Local Government Area (LGA) in the region in terms of gross value of agricultural commodities. It is also the most diverse LGA with respect to the type of commodities it produces.

Potential conflicts between horticulture and residential development are dependent on the nature of the horticultural operation and the type of management practices employed by the producer. Commercial operations which involve the regular or intermittent use of chemical sprays on crops have the greatest potential for conflict with adjoining residential uses.

Where pesticides are applied aurally, the *Pesticides Act 1999* requires that the property owner (or person authorising the spraying of the chemicals) obtain the prior written consent of all owners of dwellings or public premises whose boundaries are located within 150 metres of the spray area. The NSW Environmental Protection Authority is the regulatory authority responsible for the administration of the *Pesticides Act 1999*.

“Biological buffers” offer an alternative to conventional setback requirements in that they assist in the capture of airborne pesticide droplets through the creation of a vegetation filter and are necessary to vary a recommended buffer to horticulture subject to a merit based assessment. A Biological buffer (as illustrated on page 4) should:

- (a) be a minimum width of 30 metres;
- (b) contain random plantings of a variety of tree and shrub species of differing growth habits, as spacings of 4 to 5 metres and mature plant height ranging from small shrubs to large trees of 15 metres or taller;
- (c) include species which have long, thin and rough foliage which facilitate the more efficient capture of spray droplets (see Appendix A for suitable species).
- (d) provide a permeable barrier which allows air to pass through the buffer (at least 50% of the screen should be open space).

Biological buffers also:

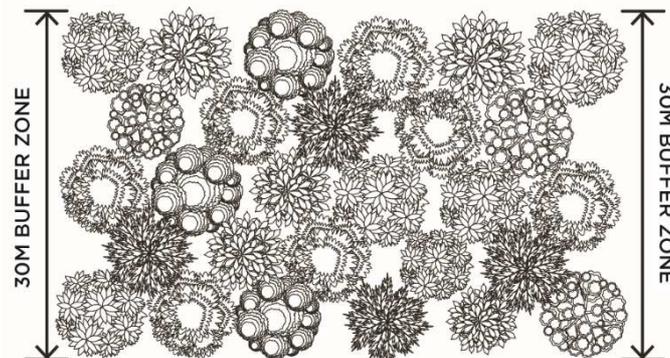
1. create corridors and habitat areas for wildlife;
2. increase the biological diversity of the area, thus assisting with pest control;
3. favourably influence the micro-climate; and
4. are aesthetically pleasing.

*Recommended Buffer – refer to Appendix B*

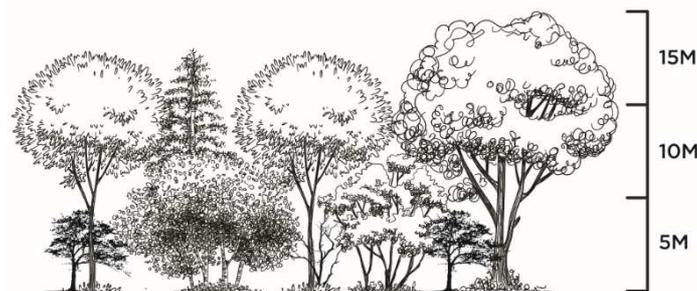
If the recommended minimum buffer distance cannot be met as per Appendix B, the ‘Deemed to Comply’ solution for a biological buffer is an 80 metre setback, including a ‘biological buffer’ of a minimum width of 30 metres established prior to development along the boundaries adjoining the horticultural land use and established in accordance with Appendix A.

Applications for development, where biological buffer areas are proposed, shall include a detailed landscaping plan indicating the extent of the buffer area, the location and spacing of trees and shrubs and a list of tree and shrub species (see Appendix A for recommended species). The application shall also contain details concerning the proposed ownership of the buffer area and the means by which the buffer is to be maintained.

### **Conceptual Biological Buffer illustration**



**PLAN VIEW**



### **Macadamia De-husking Plants**

The mechanical de-husking of macadamia nuts is considered to be ancillary to the agricultural operation of macadamia producing properties in that it forms part of the normal harvesting process of macadamias. Consequently Council does not regulate macadamia de-husking plants (ancillary to a macadamia plantation on the same land) by means of control on siting, noise generation, or hours of operation. During harvesting operations de-husking plants may generate significant levels of noise and traffic which can have impacts on adjoining properties. Proposals for new dwellings or other incompatible development on properties adjoining existing macadamia de-husking plants should be located as far as practical from the plant in order to minimise adverse impacts.

*Recommended Buffer – refer to Appendix B*

## **Piggeries**

Piggeries on the North Coast range from small operations of less than ten sows (approximately 100 pigs) to large intensive units housing up to 800 sows (8,000 pigs).

Piggeries accommodating more than 2,000 pigs (200 sows) are classed as Designated Development under Schedule 3 of the *Environmental Planning and Assessment Regulation 2000* and will require the preparation of an Environmental Impact Statement.

Piggeries accommodating more than 200 pigs (20 sows) may also be classed as designated if they are located:

- (a) within 100 metres of a natural waterbody or wetlands; or
- (b) in an area of high watertable; or highly permeable soils; or acid sulfate, sodic or saline soils; or
- (c) on land of slopes greater than 6 degrees; or
- (d) within a drinking water catchment; or
- (e) on a floodplain; or
- (f) within 5km of a residential zone and, in the opinion of the consent authority, having regard to topography and local meteorological conditions, are likely to effect the amenity of the neighbourhood by reason of noise, odour, dust, traffic or waste.

Depending on the size of the establishment, the method of effluent disposal and topography, piggeries are likely to have a significant impact on nearby residential development and other incompatible land uses through the generation of odours. Buffers between piggeries and incompatible development should be of a sufficient distance so that odours generated by piggeries do not cause an undue loss of amenity.

*Recommended Buffer* – refer to Appendix B

## **Cattle Feedlots**

A cattle feedlot consists of a confined yard area with watering and feeding facilities where cattle are completely hand or mechanically fed for the purposes of beef production.

Large feedlots containing 1,000 or more head of cattle are classed as Designated Development under Schedule 3 of the *Environmental Planning and Assessment Regulation 2000* and will require the preparation of an Environmental Impact Statement.

Cattle feedlots can have a significant environmental impact on adjoining properties through the generation of odours, dust and noise from stock truck movements and feed mill operations. Consequently sufficient buffering needs to be provided between feedlots and residential development to mitigate the effects of these impacts.

*Recommended Buffer* – refer to Appendix B

## **Other Intensive Livestock Agriculture, Dairies (Pasture Based) and Rural Industries**

Buffers may be required to other intensive livestock agriculture, dairies (pasture based) and rural industries which are likely to impact on nearby residential development and these will be assessed individually according to the size, nature and characteristics of the operation.

*Recommended Buffer* – refer to Appendix B

## **Grazing Land and associated infrastructure**

Residential dwellings and other incompatible land use sites adjoining grazing land should have a minimum 50 metre setback from cattle yards, shearing sheds, stock transporting infrastructure and other intensively used facilities ancillary to grazing activities.

*Recommended Buffer* – refer to Appendix B

### ***Cattle Dip Sites***

There are a significant number of operational, decommissioned and remediated cattle tick dip sites in Lismore. Cattle dipping remains an essential component of the cattle tick control program on the North Coast. The noise, dust and pesticide use associated with cattle dipping means that the operation of dip sites is generally not compatible with residential and other incompatible land uses. Even decommissioned dip sites are likely to contain chemical residues in the surrounding soil which may place a constraint on the development of surrounding land.

Lismore City Council's Regional Policy for the Management of Contaminated Land and the State Environmental Planning Policy No. 55 – Remediation of Land are used to establish appropriate management practices where encroaching development is within 200m from a cattle dip site.

### ***Extractive Industries***

Extractive industries involve the use of an extensive range of plant and equipment which creates noise and dust as material is extracted then crushed and screened for loading and transport. In some cases blasting is necessary to extract the material. Quarrying activities are incompatible with many land uses, particularly residential. It is therefore desirable to provide a buffer area around quarries to minimise land use conflicts and safeguard quarry resources which could be sterilised as a result of encroachment by residential and other incompatible land uses.

The extent of the buffer requirement depends on the size of the quarry, whether blasting is utilised, the nature of production methods, the extent of crushing and screening operations, topography and site conditions and the intensity of surrounding development and land uses.

*Recommended buffers – refer to Appendix B*

### ***Sewage Treatment Plants***

The operation of sewage treatment plants involves the aerobic treatment of sewage effluent in order to achieve a quality of effluent discharge from the plant as prescribed by license issued by the EPA. The normal and efficient operation of sewage treatment plants involves the generation of some odours which may make them incompatible with certain land uses, particularly residential, commercial and public uses.

The Department of Planning, Industry and Environment recommend a buffer of at least 400 metres width around sewage treatment plants, although this may be varied to suit local conditions. Compatible uses which may be carried out within the 400 metre buffer include agriculture, plant nurseries and certain recreational uses.

#### *Recommended Buffer*

400 metres for residential areas, commercial and community land uses, schools, etc.

### ***Waste or Resource Management Facilities***

Lismore City Council operates a waste and resource management facility at Wyrallah Road, Monaltrie. These facilities generate a number of external impacts related to their operation which include odours, dust, noise from machinery, traffic and visual impacts. Buffers between the perimeter of the working area of the waste or resource management facility and residential development should seek to minimise those impacts on residences while taking into account the operational characteristics of the facility and specific conditions affecting the site.

#### *Recommended Buffer*

500m from the approved landfill area.

### ***Industrial Development***

Where the subdivision of land is proposed for industrial development which adjoins existing residential development (or land zoned for the purposes of residential development), a buffer shall

be provided by the subdivider along the boundary with the residential land. The purpose of the buffer is to provide visual screening and assist in the reduction of impacts such as noise or other emissions from future industrial development.

Buffers should be mounded (to a minimum height of 1.5 meters) and densely planted in accordance with an approved landscaping plan. Generally Council will not accept land in buffer areas for dedication as Public Reserve. The subdivider shall provide details as to the type of industry to be adjoining the residential land, the future ownership of the buffer area and the means by which the landscaping will be maintained to Council's satisfaction.

#### *Recommended Buffer*

	<b>Minimum</b>	<b>Preferred</b>
Light Industries	10 metres	20 metres
General Industries	20 metres	40 metres

Buffer widths may be reduced where a public road provides a physical separation between residential land and industrial development, however mounding and landscaping will still be required to provide an effective visual barrier.

#### **Heavy Industry and Heavy Industrial Storage Establishments**

The width of buffer areas between heavy industry and heavy industrial storage establishments and non-compatible uses such as residential development will be dependent on the nature of the industry but should be of sufficient distance that adverse impacts are reduced to acceptable limits.

#### *Recommended Buffer*

1,000 metres to residential development and other non-compatible uses (a reduction may be considered depending on the nature of the industry).

#### **Crematoriums**

Crematoriums are a permissible use in the B6 Enterprise Corridor, IN1 General Industrial and IN2 Light Industrial zones but prohibited in all other zones under the Lismore LEP 2012. Where crematoriums are proposed to border on residential areas an appropriate buffer is required to overcome perception issues that may be experienced by nearby residences.

#### *Recommended Buffer*

A minimum of 80 metres is required from existing residential development or from land that is zoned R1 General Residential, R2 Low Density Residential or RU5 Village.

#### **Watercourses and Wetlands**

Buffers between various forms of development and watercourses and wetlands are necessary in order to maintain water quality and protect the aesthetic, recreational and habitat values of the watercourse and riparian vegetation.

#### *Recommended Buffers – refer to Appendix B*

A list of suitable trees and shrubs for planting in streamside buffers is included in Appendix A.

#### **Environmental Buffers**

To protect the integrity of areas which are recognised as having high environmental value (such as National Parks, Nature Reserves, other environmental protection zones, and State Forests) a sufficient setback between new residential development and the defined boundary of environmentally sensitive areas should be maintained. Adverse impacts on these areas from residential development may include predation of wildlife by domestic animals, invasion of exotic weeds, and nutrient enrichment from stormwater run-off.

#### *Recommended Buffer*

Rural dwellings – 200 metres (preferred), 100 metres (minimum).

Urban development – 20 metres from the nearest boundary of any urban development (a reduction may be considered where an appropriate animal proof fence is erected along the boundary).

### **Railway Lines**

The following minimum setbacks from railway lines apply to residential dwellings:

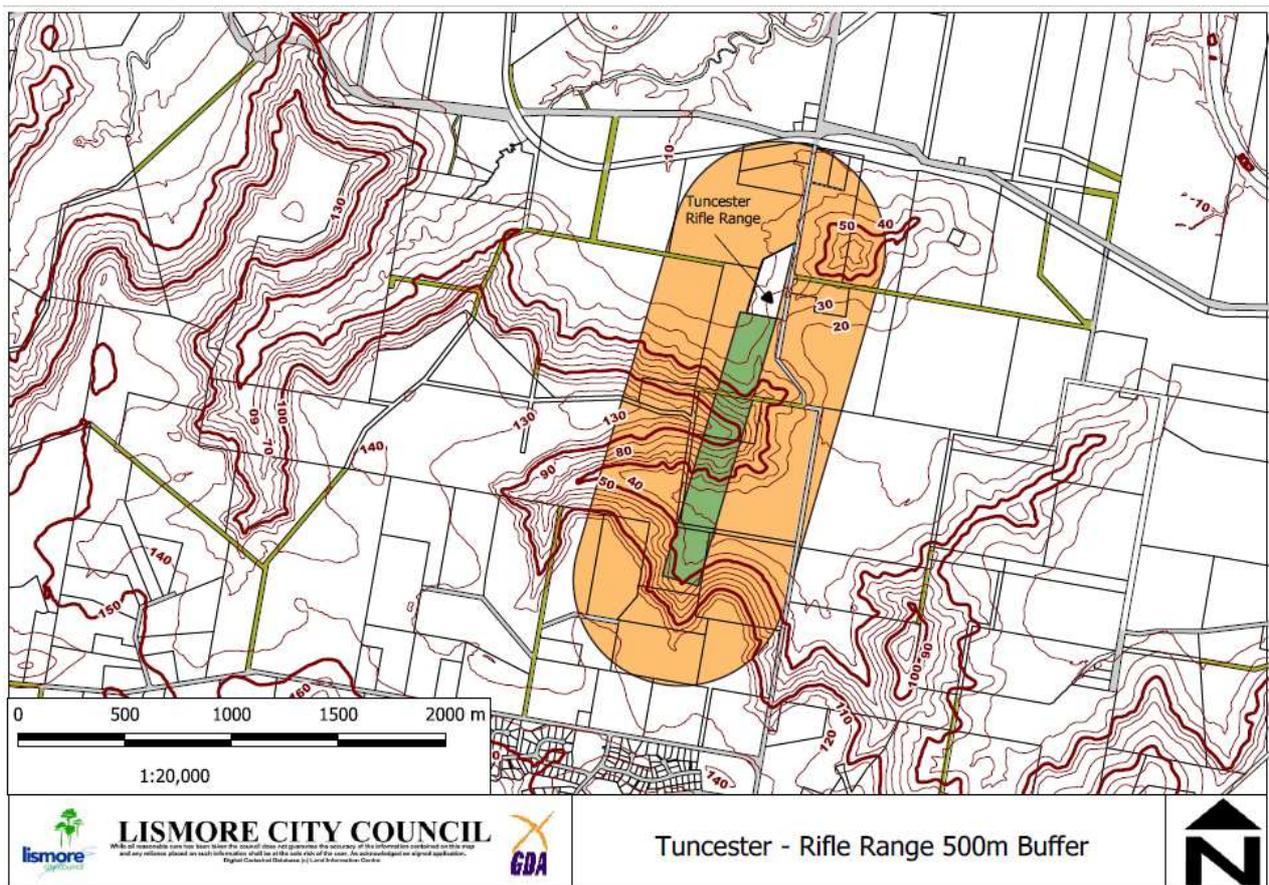
Rural areas	50 metres
Urban areas	20 meters (with appropriate mounding and planting)

### **Powerlines**

Buffers to powerlines to be provided in accordance with *ISSC 20 Guideline for the Management of Activities within Electricity Easements and Close to Electricity Infrastructure*: Industry Safety Steering Committee September 2012.

### **Rifle Ranges**

Restrictions apply to the erection or use of any building for any purpose on land highlighted in green on the following map, located immediately to the south of the rifle range in Rifle Range Road, Tuncester. In addition, no dwellings are permitted within the buffer area of 500 metres around the firing line of the pistol and small bore range, as indicatively highlighted in orange on the map. Any other development and/or use proposed within the 500 metre buffer will be subject to Council consideration via the lodgement of a development application, having regard to the impact of that development on the continuing use of the rifle range.



### **Lismore Airport**

Air space “protection” around an aerodrome is an important factor in maintaining the continued safe operation of an aerodrome. The Civil Aviation Safety Authority (CASA) defines a set Obstacle Limitation Surfaces (OLS) designed to provide a safe, efficient and predictable environment for aeroplanes in which to approach, land and takeoff. The objective of the OLS Standards is to define

the air space around the aerodrome which is to be kept free of obstacles so as to enable aeroplane operations to be conducted safely. No structure or installation is to be erected within the air space nominated without specific approval of the CASA:

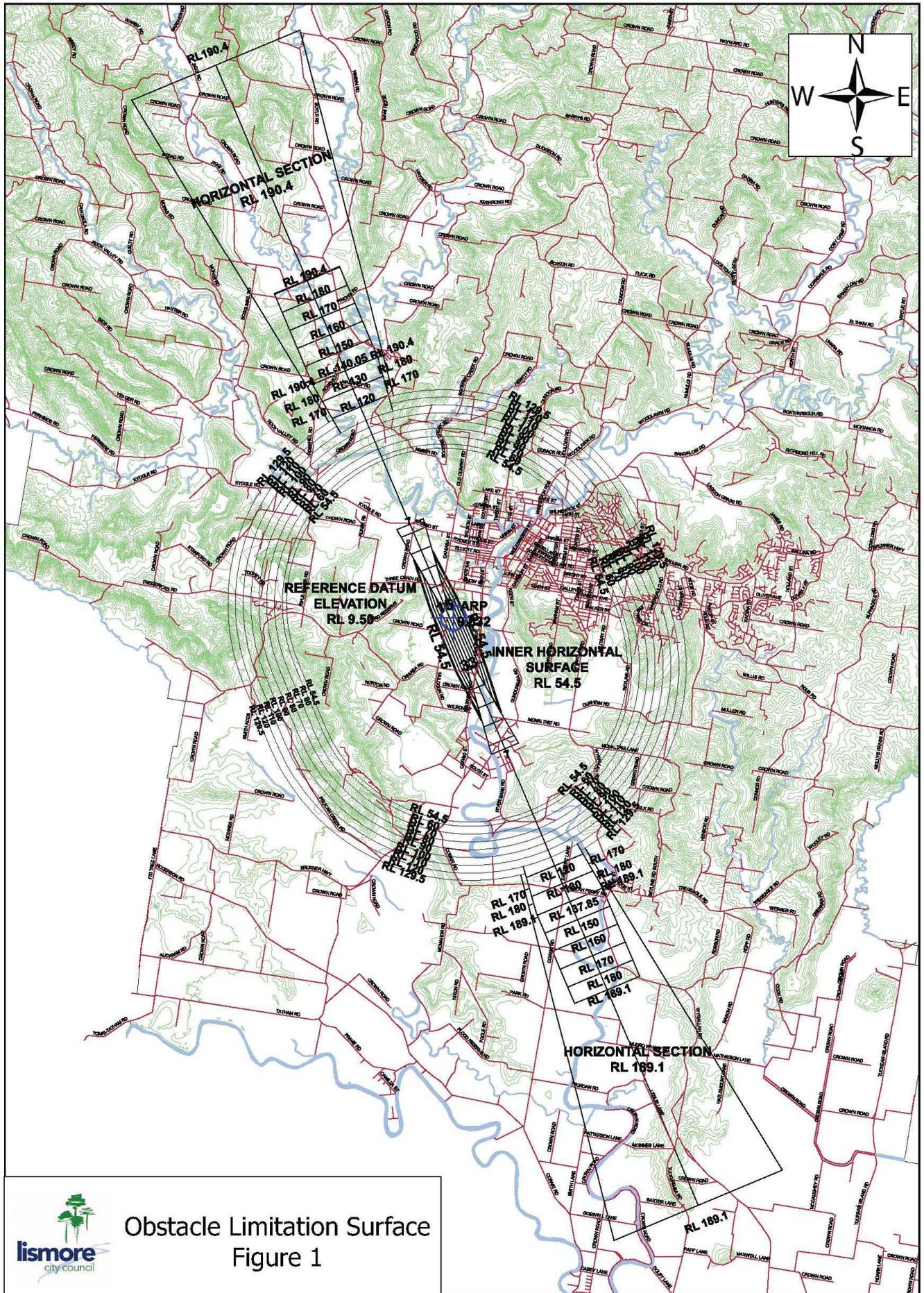
1. Above RL 54.5 metres AHD (45 metres above ground level of the airport) within an area of 4,000 metres radius from the runway as indicated in Figure 1.
2. Within the runway approach surfaces as indicated in Figures 1 and 2.

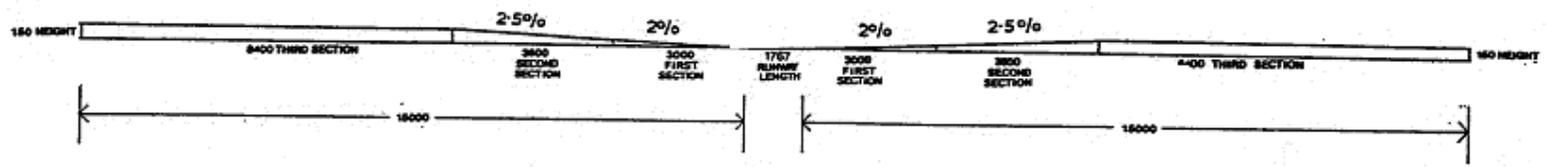
The nominated Obstacle Limitation Surfaces may be extended in the event of future extensions to the Lismore Airport runway.

Noise generated by aircraft has a differing impact upon a range of various land uses within the area surrounding airports. Accordingly, it is acknowledged by Council that certain types of development, such as residential dwellings, are not appropriate within close proximity to an airport. Taking this into account, in accordance with the requirements of LEP 2012, Council will generally not permit any form of residential development in locations where the ANEF (Australian Noise Exposure Forecast System), as shown on Figure 3, is at a level of 20 ANEF or more.

**Notes:**

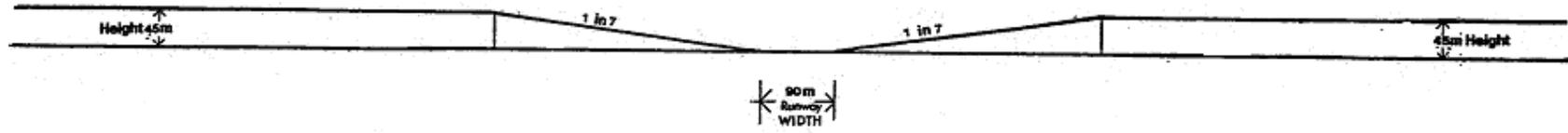
1. The actual location of the 20 ANEF contour is difficult to define accurately, mainly because of variations in aircraft flight paths.
2. Within 20 ANEF to 25 ANEF, some people may find that the land is not compatible with residential use. Land use authorities may consider that the incorporation of noise control features in the construction of residences is appropriate (see also Appendix A).
3. An analysis of building noise reduction requirements by an acoustic consultant should be made and any necessary noise control features included in the design of the building.
4. If the 35 ANEF contour is not at present included in ANEF drawings this contour should be determined by interpolation.



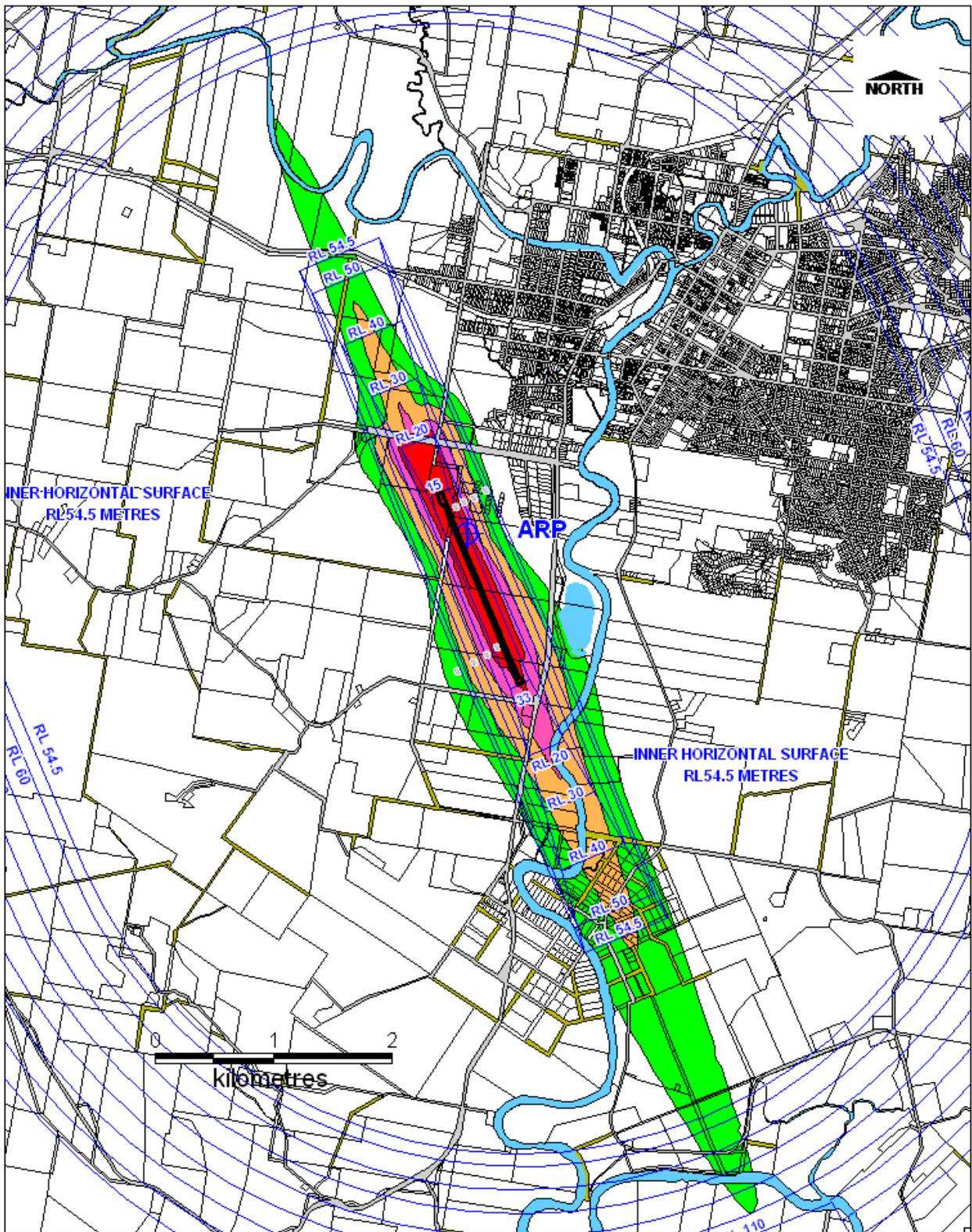


Runway Long Section

FIG 2



Runway Cross Section



LISMORE CITY COUNCIL

Fig 2

Airport Noise B Fig 3

## APPENDIX A

**Trees and shrubs suitable for planting within a biological buffer, for fire retardant purposes and/or for planting as riparian buffers.**

Family	Scientific Name	Common Name	Biological Buffer	Fire Retardant	Riparian
Araucariaceae	<i>Araucaria cunninghamii</i>	Hoop Pine	✓		
Arecaceae	<i>Archontophoenix cunninghamiana</i>	Bangalow Palm			✓
Asteliaceae	<i>Cordyline petiolaris</i>	Broad-leaved Palm Lily			✓
Asteliaceae	<i>Cordyline stricta</i>	Narrow-leaved Palm Lily			✓
Boraginaceae	<i>Ehretia acuminata</i> var. <i>acuminata</i>	Koda			✓
Casuarinaceae	<i>Allocasuarina littoralis</i>	Black She-Oak	✓	✓	
Casuarinaceae	<i>Casuarina cunninghamiana</i>	River She-Oak	✓	✓	✓
Casuarinaceae	<i>Casuarina glauca</i>	Swamp Oak	✓	✓	
Cyatheaceae	<i>Cyathea cooperi</i>	Straw Tree fern		✓	
Cyperaceae	<i>Carex appressa</i>	Tall Sedge			✓
Elaeocarpaceae	<i>Elaeocarpus grandis</i>	Blue Quandong			✓
Elaeocarpaceae	<i>Elaeocarpus obovatus</i>	Hard Quandong		✓	✓
Elaeocarpaceae	<i>Elaeocarpus reticulatus</i>	Blueberry Ash		✓	
Fabaceae	<i>Acacia delbata</i>	Silver Wattle		✓	
Fabaceae	<i>Acacia floribunda</i>	White Sally Wattle	✓		
Fabaceae	<i>Acacia longissima</i>	Long-leaf Wattle	✓	✓	
Fabaceae	<i>Acacia melanoxylon</i>	Blackwood	✓		✓
Fabaceae	<i>Pararchidendron pruinosum</i> var. <i>pruinosum</i>	Snow Wood		✓	
Lauraceae	<i>Cryptocarya triplinervis</i>	Three-veined Cryptocarya		✓	
Lauraceae	<i>Endiandra muelleri</i>	Green-leaved Rose Walnut			✓
Lauraceae	<i>Endiandra pubens</i>	Hairy Walnut			✓
Lauraceae	<i>Litsea australis</i>	Brown Bolly Gum		✓	
Lauraceae	<i>Litsea reticulata</i>	Bolly Gum		✓	
Lauraceae	<i>Neolitsea dealbata</i>	Hairy-leaved Bolly Gum		✓	
Lomandraceae	<i>Lomandra hystrix</i>				✓
Lomandraceae	<i>Lomandra longifolia</i>	Spiny-headed Mat-rush			✓
Malvaceae	<i>Brachychiton acerifolius</i>	Illawarra Flame Tree		✓	
Malvaceae	<i>Brachychiton discolor</i>	Lacebark Tree		✓	
Malvaceae	<i>Commersonia fraseri</i>	Brush Kurrajong			✓
Meliaceae	<i>Dysoxylum fraserianum</i>	Rosewood		✓	
Meliaceae	<i>Dysoxylum mollissimum</i> subsp. <i>molle</i>	Red Bean		✓	
Meliaceae	<i>Melia azedarach</i>	White Cedar		✓	
Moraceae	<i>Ficus coronata</i>	Creek Sandpaper Fig		✓	✓
Moraceae	<i>Ficus fraseri</i>	Sandpaper Fig		✓	✓
Moraceae	<i>Ficus macrophylla</i>	Morten Bay Fig		✓	✓

Family	Scientific Name	Common Name	Biological Buffer	Fire Retardant	Riparian
Moraceae	<i>Ficus obliqua</i>	Small-leaved Fig			✓
Moraceae	<i>Ficus superba</i> var. <i>henneana</i>	Deciduous Fig			
Moraceae	<i>Ficus watkinsiana</i>	Strangling Fig			✓
Moraceae	<i>Streblus brunonianus</i>	Whalebone Tree		✓	
Myrtaceae	<i>Acmena ingens</i>	Red Apple			✓
Myrtaceae	<i>Acmena smithii</i>	Lilly Pilly		✓	✓
Myrtaceae	<i>Baeckea linifolia</i>	Weeping Baeckea	✓		
Myrtaceae	<i>Callistemon salignus</i>	Willow Bottlebrush	✓		✓
Myrtaceae	<i>Callistemon viminalis</i>	Weeping Bottlebrush	✓		✓
Myrtaceae	<i>Eucalyptus grandis</i>	Flooded Gum			✓
Myrtaceae	<i>Eucalyptus robusta</i>	Swamp Mahogany			✓
Myrtaceae	<i>Eucalyptus tereticornis</i>	Forest Red Gum			✓
Myrtaceae	<i>Leptospermum flavescens</i>	Common Tea Tree	✓		
Myrtaceae	<i>Leptospermum petersonii</i>	Lemon-scented Tea Tree	✓		
Myrtaceae	<i>Lophostemon confertus</i>	Brush Box		✓	
Myrtaceae	<i>Melaleuca bracteata</i>	Black Tea-tree	✓		
Myrtaceae	<i>Melaleuca linarifolia</i>	Narrow-leaved paperbark	✓		
Myrtaceae	<i>Melaleuca quinquenervia</i>	Broad-leaved Paperbark	✓		
Myrtaceae	<i>Melaleuca styphelioides</i>	Prickly-leaved Tea Tree	✓		
Myrtaceae	<i>Syncarpia glomouifera</i>	Turpentine	✓	✓	
Myrtaceae	<i>Syzygium australe</i>	Brush Cherry		✓	
Myrtaceae	<i>Syzygium francisii</i>	Giant Water Gum			✓
Myrtaceae	<i>Syzygium luehmannii</i>	Small-leaved Lilly Pilly		✓	
Myrtaceae	<i>Tristaniopsis laurina</i>	Water Gum		✓	✓
Myrtaceae	<i>Waterhousea floribunda</i>	Weeping Lilly Pilly		✓	
Oleaceae	<i>Notelaea longifolia</i>	Large Mock-olive		✓	
Oleaceae	<i>Olea paniculata</i>	Native Olive		✓	
Phyllanthaceae	<i>Glochidion ferdinandi</i>	Cheese Tree		✓	✓
Pittosporaceae	<i>Hymenosporum flavum</i>	Native Frangipani			✓
Pittosporaceae	<i>Pittosporum revolutum</i>	Rough Fruit Pittosporum		✓	
Pittosporaceae	<i>Pittosporum undulatum</i>	Sweet Pittosporum		✓	
Podocarpaceae	<i>Podocarpus elatus</i>	Plum Pine	✓		✓
Proteaceae	<i>Banksia integrifolia</i> subsp. <i>integrifolia</i>	Coastal Banksia	✓		
Proteaceae	<i>Floydia praealta</i>	Ball Nut			✓
Proteaceae	<i>Grevillea robusta</i>	Silky Oak			✓
Proteaceae	<i>Hakea salicifolia</i>	Willow Leaf Hakea	✓		
Proteaceae	<i>Helicia glabriflora</i>	Smooth Helicia	✓		
Proteaceae	<i>Stenocarpus salignus</i>	Scrub Beefwood			
Proteaceae	<i>Stenocarpus sinuatus</i>	Firewheel Tree	✓	✓	✓
Rhamnaceae	<i>Alphitonia excelsa</i>	Red Ash			✓
Rutaceae	<i>Flindersia schottiana</i>	Cudgerie			✓

Family	Scientific Name	Common Name	Biological Buffer	Fire Retardant	Riparian
Rutaceae	<i>Melicope elleryana</i>	Pink-flowered Doughwood		✓	
Rutaceae	<i>Melicope micrococca</i>	Hairy-leaved Doughwood		✓	
Sapindaceae	<i>Arytera distylis</i>	Twin-leaved Coogera			✓
Sapindaceae	<i>Arytera divaricata</i>	Coogera			
Sapindaceae	<i>Cupaniopsis parvifolia</i>	Small-leaved Tuckeroo	✓		
Sapindaceae	<i>Diploglottis australis</i>	Native Tamarind			✓
Sapindaceae	<i>Guioa semiglauca</i>	Guioa			✓
Sapindaceae	<i>Harpullia alata</i>	Wing-leaved Tulip		✓	
Sapindaceae	<i>Harpullia pendula</i>	Tulipwood			✓
Sapindaceae	<i>Jagera pseudorhus</i> var. <i>pseudorhus</i>	Foambark Tree	✓	✓	✓
Zingiberaceae	<i>Alpinia caerulea</i>	Native Ginger			✓

## APPENDIX B – Recommended minimum buffer distances for primary industries

	Residential areas & urban development	Rural dwellings	Education facilities & pre-schools	Rural tourist accommodation	Watercourses & wetlands	Bores & wells	Potable water supply/ catchment	Property boundary	Roads
Piggeries <sup>1</sup> Housing & waste storage	1000	500	1000	500	100	SSD	800	100	100
	500	250	250	250	100	SSD	800	20	20
Waste utilisation area	1000	500	1000	1000	100	SSD	800	100	100
	500	250	250	250	100	SSD	800	20	20
Feedlots <sup>2</sup> Yards & waste storage	1000	500	1000	1000	100	SSD	800	100	100
	500	250	250	250	100	SSD	800	20	20
Waste utilisation area	1000	500	1000	500	100	SSD	800	100	100
	500	250	250	250	100	SSD	800	20	20
Poultry <sup>3</sup> Sheds & waste storage	1000	500	1000	500	100	SSD	800	100	100
	500	250	250	250	100	SSD	800	20	20
Waste utilisation area	500	250	250	250	100	SSD	800	100	100
	500	250	250	250	100	SSD	800	20	20
Dairies <sup>4</sup> Sheds & waste storage	500	250	250	250	100	SSD	800	100	100
	500	250	250	250	100	SSD	800	20	20
Waste utilisation area	300	150	150	150	100	SSD	800	50	50
	120	60	120	60	100	SSD	800	20	20
Rabbits <sup>5</sup> Wet shed, ponds & irrig. Dry shed	300	150	150	150	100	SSD	800	50	50
Other intensive livestock operations <sup>6</sup>	500	300	500	300	100	SSD	800	100	100
Grazing of stock	50	50	50	50	BMP	SSD	BMP	NAI	BMP
Sugar cane, cropping & horticulture	300	200	200	200	BMP	SSD	BMP	NAI	BMP
Greenhouse & controlled environment horticulture	200	200	200	200	50	SSD	SSD	50	50
Macadamia de-husking	300	300	300	300	50	SSD	SSD	50	50
Forestry & plantations	SSD	SSD	SSD	SSD	STRC	SSD	SSD	BMP	STRC
Bananas	150	150	150	150	BMP	SSD	SSD	BMP	BMP
Turf farms <sup>9</sup>	300	200	200	200	50	SSD	SSD	BMP	SSD
Rural industries (incl. feed mills and sawmills)	1000	500	500	500	50	SSD	SSD	SSD	50
Abattoirs	1000	1000	1000	1000	100	SSD	800	100	100
Potentially hazardous or offensive industry	1000	1000	1000	1000	100	SSD	800	100	100
Mining, petroleum, production & extractive industries	500 1000*	500 1000*	500 1000*	500 1000*	SSD	SSD	SSD	SSD	SSD

\* Recommended minimum buffer distance for operations involving blasting.

Source: Table 6, 'Living and Working in Rural Areas' (NSW DPI, 2007)

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.

Notes:

1. Subject to environmental assessment in accordance with the Australian Pork Limited *National Environmental Guidelines for Piggeries* (2010) and the *National Environmental Guidelines for Outdoor Rotational Piggeries* (2013)
2. Subject to environmental assessment in accordance with the National Guidelines for Beef Cattle Feedlots in Australia. Meat and Livestock Australia (2012)
3. Subject to environmental assessment in accordance with Best Practice Management for Meat Chicken Production in NSW. NSW DPI (2012)
4. Subject to environmental assessment in accordance with *Environmental Management Guidelines for the Dairy Industry*. NSW DPI (2008)
5. Rabbit farming: Planning and development control guidelines (NSW DPI 2002) and environmental assessment in accordance with *Assessment and management of odour from stationary sources in NSW* (DEC, 2006)
6. Environmental assessment in accordance with *Assessment and management of odour from stationary sources in NSW* (DEC, 2006)
7. Subject to environmental assessment in accordance with *Planning for Turf Farms* (NSW DPI, 2014)