



Ballina Shire Development Control Plan 2012

Chapter 2 – General and Environmental Considerations





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Part 1 Preliminary

1.1 Introduction

Name:

Ballina Shire Development Control Plan 2012, Chapter 2 – General and Environmental Considerations.

Purpose:

To identify Council's requirements relating to general and environmental planning elements that have broad application to land within Ballina Shire.

Relationship to other Chapters of this DCP:

The provisions in this chapter prevail over those in **Chapter 1** where there is an inconsistency.

Where there is an inconsistency between provisions in chapters 2, 2a and 2b, Council will determine which provision(s) will apply based on consideration of the strategic planning framework for the land the subject of the application, statutory considerations, relevant planning objectives and the nature of the proposed development.

The provisions of chapters 3, 4, 5, 6, 6a, 6b, 6c, 6d, 7 and 8 prevail over the provisions of this chapter unless otherwise specified.

Application:

The application of the planning provisions of this chapter are specified in relation to each element addressed in Part 2.



Notes:

In addition to the items addressed in this chapter, Chapter 2a - Vegetation Management and Chapter 2b - Flood Management should also be addressed as general/ environmental considerations. Applicants should consider the applicability of the provisions of these chapters in relation to proposed development.

Planning Objectives and Development Controls:

The provisions of this chapter are categorised in relation to a series of general and environmental planning considerations (referred to as elements). For each element, planning objectives and development controls are specified. Development proposals must be consistent with the planning objectives for the chapter and each of the applicable elements. Such consistency is typically demonstrated by compliance with the identified development controls, although there may be circumstances where an alternative to the application of a development control is consistent with the planning objectives.



Part 2 Chapter Planning Objectives

The overarching objectives of this Chapter are to:

- a. Ensure that applicable considerations are taken into account in the siting and design of development;
- b. Ensure that development is undertaken in a manner that is compatible with the physical and environmental characteristics of land;
- c. Ensure that development is undertaken with regard for applicable public health standards; and
- d. Minimise the potential for land use conflict.

Part 3 General Controls

3.1 Land Use Conflict

3.1.1 Application

Applies to:	
Location/s:	Zones RU1, RU2, C2 and C3 and land adjoining these zones.
Development Type/s:	All development.

3.1.2 Planning Objectives

- a. Minimise conflicts between land uses (including from residential / urban expansion towards rural lands);
- b. Provide for lawful agricultural and associated rural industry uses that take precedence over other land uses in rural zones; and
- c. Protect significant environmental and natural resources.

3.1.3 Development Controls

A Minimum Buffers and Land Use Conflict Risk Assessment (LUCRA) – Specified Land Uses

- i. Proposed development must meet the minimum buffer distances set out in Table 2.1 for specified land uses except:
 - where the requirements of subsection C - Variation to Buffers can be met to Council's satisfaction; or
 - where the proposed development meets one of the exclusion criteria contained in subsection E - Exclusions to LUCRA.
- ii. New or encroaching development is required to provide the specified land use buffer/s as shown in Figure 1.
- iii. Minimum buffer distances for hot mix asphalt / bitumen batch plant as specified in Table 2.1 are to be calculated from the property boundary (not from the location of the activity) as shown in Figure 1, unless it can be demonstrated that an area within the property is not capable of being

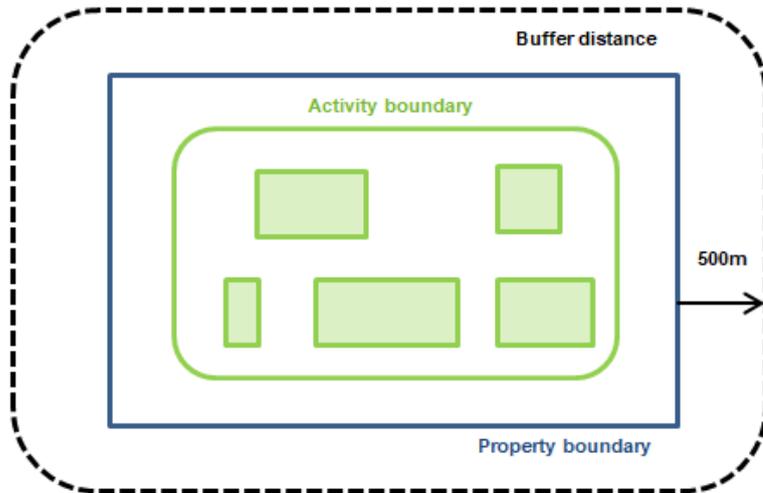




used as part of the activity. This approach may also be utilised for other development specified in Table 2.1 depending on site-specific circumstances.

Figure 1 – Calculation of Buffer Distances from hot mix asphalt / bitumen batch plant to Sensitive Development

NEW TECHNOLOGY



OLDER TECHNOLOGY

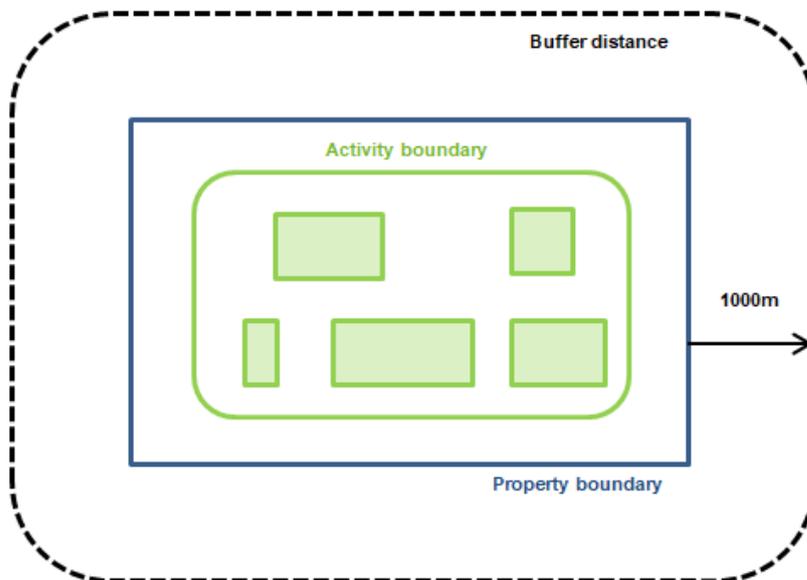




Table 2.1 Minimum buffer distances for specified land uses			
Land Use	Urban residential areas	Dwelling-house, Dual occupancy or Rural workers dwelling	Rural tourist facilities
<i>Agricultural produce industry</i> (including macadamia de-husking)	300 m	150 m	300 m
<i>Animal boarding or training establishment</i>	500m	150m	500m
Dairying infrastructure (incl. buildings containing operational plant, machinery and associated yards)	500m	150m	250m
Dip sites	200m	150m	200m
<i>Extractive industry or mining</i> ¹	500m 1000m	500m 1000m	500m 1000m
<i>Hazardous or offensive industry</i>	1000m	150m	1000m
<i>Heliport</i>	1000m	150m	1000m
High voltage power lines	20m	20m	20m
Hot mix asphalt / bitumen batch plant (New technology) ²	500m	500m	500m
Hot mix asphalt / bitumen batch plant (Older technology)	1000m	1000m	1000m
<i>Intensive livestock agriculture</i>	1000m	150m	500m
Intensive livestock operations (other than <i>intensive livestock agriculture</i>)	500m	150m	300m
<i>Intensive plant agriculture</i>	300m	150m	200m
<i>Livestock processing industry</i>	1000m	150m	1000m
<i>Sawmill</i>	1000m	150m	500m
<i>Sewerage systems</i> (excluding <i>sewerage reticulation systems</i>)	400m	150m	400m
<i>Stock and sale yard</i>	300m	150m	300m
<i>Waste or resource management facility</i>	300m	150m	300m

¹ Extractive Industry or Mining - The larger minimum distance is required when blasting is involved.

² New technology - refers to asphalt / bitumen batch plants that provide a method of direct truck delivery and have gas reclaim systems to ensure odour emission rates are significantly lower than older plants.



Notes:

Where the minimum buffer distances specified in Table 2.1 are met, a LUCRA is not required.

The buffers identified in Table 2.1 are based on the publication *Living and Working in Rural Areas - a handbook for managing land use conflict issues on the NSW North Coast* (Department of Primary Industries, Northern Rivers Catchment Management Authority and Southern Cross University).

Buffers and regulations relating to the location and height of buildings near airports are subject to the provisions contained within the *Ballina Local Environmental Plan 2012*.

Applicants may request a variation to the minimum buffer requirement specified in subclause 3.1.3A. Council has the discretion to either reduce or increase the required buffer, depending on the specific circumstances of the proposal.

Council may also consider relaxation of the buffer requirements where it can be demonstrated that the adjoining land is extremely unlikely to be used for *agriculture*, forestry, rural industry or other such uses. In such cases, the adjoining land will need to comprise remnant vegetation either with high conservation value or located on land with limited development potential, such as extremely steep slopes, narrow gullies or wetlands.

Where a variation to the required buffer is proposed, applications must include a Land Use Conflict Risk Assessment (LUCRA) in accordance with the Department of Primary Industries Handbook 'Land Use Conflict Risk Assessment (LUCRA) Guide'. A LUCRA is an appraisal of the potential for conflict between new and adjoining land uses, given the activities or expected activities to be undertaken in association with the use and management of the lands.

B Minimum Buffers and Land Use Conflict Risk Assessment – Non-specific Land Uses

- i. An application for a land use not specified in Table 2.1 is to be supported by a LUCRA where, in the opinion of Council, the location of the proposed use is of a scale and/or type that is likely to:
 - impact on the amenity or agricultural activity of adjoining land, or
 - affect the potential development of adjoining land where that land is currently zoned for urban purposes or is identified as a Strategic Urban Growth Area in the BLEP 2012 and in Council's adopted Growth Management Strategy.
- ii. The exception to (i) is where the proposed development meets one of the exclusion criteria contained in subsection E - Exclusions to Land Use Conflict Risk Assessment





Notes:

Amenity considerations in relation to subsection B may include, but are not limited to, consideration of matters associated with noise, odours, views and public health.

C Variation to Minimum Buffers

- i. A variation to the minimum buffer specified in subclause 3.1.3A may be granted where a LUCRA demonstrates that an alternate buffer arrangement is suitable to manage potential land use conflict.

D Minimum Standards For LUCRA

- i. A LUCRA must address, at a minimum, the following matters:
 - The extent, nature and intensity of the proposed and adjoining land uses;
 - The operational characteristics of the proposed and adjoining land uses;
 - The external effects likely to be generated by the proposed and adjoining land uses (e.g. dust, fumes, odour, spray drift, light and noise) and their potential to cause conflict;
 - The potential of adjoining land to be used for various commercial activities including *agriculture*, quarries, rural industries and other agricultural pursuits;
 - Any topographical features or vegetation which may act to reduce the likely impacts of an adjoining land use;
 - Prevailing wind conditions and any other climatic characteristics;
 - The type of buffer proposed (e.g. biological/vegetated or property management buffers); and
 - Any other mitigating circumstances.



Notes:

Applicants may request a variation to the minimum buffer requirement specified in subclause 3.1.3A. Council has the discretion to either reduce or increase the required buffer, depending on the specific circumstances of the proposal.

Council may also consider relaxation of the buffer requirements where it can be demonstrated that the adjoining land is extremely unlikely to be used for *agriculture*, forestry, rural industry or other such uses. In such cases, the adjoining land will need to comprise remnant vegetation either with high conservation value or located on land with limited development potential, such as extremely steep slopes, narrow gullies or wetlands.

Where a variation to the required buffer is proposed, applications must include a Land Use Conflict Risk Assessment



(LUCRA) in accordance with the Department of Primary Industries Handbook 'Land Use Conflict Risk Assessment (LUCRA) Guide'. A LUCRA is an appraisal of the potential for conflict between new and adjoining land uses, given the activities or expected activities to be undertaken in association with the use and management of the lands.

E Exclusions to Land Use Conflict Risk Assessment

- i. Notwithstanding the requirements of subsections 3.1.3 A, B and C, a LUCRA is not required in the following circumstances:
 - Where the proposed land use involves the erection of **residential accommodation** on a lot which is the subject of an existing residential zone under the BLEP 2012; or
 - Where an urban land use is proposed on a lot with an area of less than 5 hectares in a rural residential area as specified on the Rural Residential Areas Map; or
 - Where the proposed land use involves alterations or additions to an existing lawfully erected building used for **residential accommodation**; or
 - Where an urban land use is proposed and the adjoining rural land is identified as a Strategic Urban Growth Area in Council's adopted Growth Management Strategy and is not the subject of an intensive agricultural land use or does not have significant environmental values; or
 - Where the replacement of an existing **dwelling house** is proposed either on the same site or wholly within a 25m radius of the original **dwelling house**; or
 - Where conversion of an existing **dwelling house** to **bed and breakfast accommodation** is proposed; or
 - Where a **dwelling house** is proposed in relation to agricultural land uses on the same allotment; or
 - Where an agricultural land use is proposed in relation to an existing **dwelling house** on the same allotment; or
 - Where subdivision for the purpose of a boundary adjustment is proposed and the changes to the area of the allotments do not exceed 10% of the original lot areas.

F Biological Buffers

- i. Where a biological buffer is proposed to address potential land use conflict, the following requirements must be met:
 - the buffer:
 - must have a minimum width of 30m;
 - must incorporate a variety of native tree and shrub species, including species that produce long, thin and rough foliage.





- must not be located within the applicable **asset protection zone** specified under the NSW Rural Fire Service's publication Planning for Bushfire Protection;
- a landscaping plan indicating the extent of the buffer area, the location and spacing of vegetation and a list of plant species must be submitted to Council;
- buffer plantings must be substantially commenced prior to commencement of the alternate use of the land; and
- the buffer must be supported by a maintenance plan and a suitable restriction on the land title regarding the retention of the buffer.



Notes:

Biological buffers are a specific type of vegetated buffer that require detailed planning and long term maintenance.

3.2 Ridgelines and Scenic Areas

3.2.1 Application

Applies to:	
Location/s:	Land identified on the Ridgelines and Scenic Areas Map.
Development Type/s:	All development.

3.2.2 Planning Objectives

- a. Protect and enhance those areas of particular scenic value to the Ballina Shire;
- b. Encourage development that minimises intrusion into the skyline when viewed from public land;
- c. Encourage retention of prominent vegetation along ridgelines and visually prominent areas; and
- d. Encourage development that maintains the rural character of the locality and minimises any adverse scenic impacts.

3.2.3 Development Controls

- i. Development must be designed to be compatible in appearance with the natural environment and scenic qualities of the land and the immediate locality;
- ii. Buildings and works should not be sited on ridgelines unless it can be demonstrated that no suitable alternative location is available. Where it can be clearly demonstrated that there is no suitable alternative site for the building or works, the following measures are to be incorporated into the design of the development to minimise its potential visual impact:
 - Site selection should focus on areas that avoid the need for vegetation removal;
 - Buildings should be clustered in less visually prominent areas of the site when viewed from **public land**;



- Buildings should not intrude into the skyline when viewed from *public land*;
- Building materials and colours are to mitigate potential adverse visual impacts. Materials should be non-reflective and earthy colours and tones are to be used; and
- Landscaping comprised predominately of native species endemic to the subject locality should be used to screen the buildings or works from *public land* and surrounding properties. Where existing vegetation will not adequately screen the development, a landscaping plan shall be submitted detailing proposed planting to augment existing vegetation.

3.3 Natural Areas and Habitat

3.3.1 Application

Applies to:	
Location/s:	Land shown on the Natural Areas and Habitat Map and Wildlife Corridors Map.
Development Type/s:	All development

3.3.2 Planning Objectives

- a. Protect and enhance ecologically significant areas;
- b. Provide for development that is compatible with ecological values and that minimises risk to ecologically sensitive environments; and
- c. Encourage development that contributes to the maintenance, enhancement or rehabilitation of environmental values and ecologically sensitive areas.

3.3.3 Development Controls

- i. Development is to be sited, designed and managed to avoid or mitigate potential adverse impacts on natural areas and habitat;
- ii. All development (except dwellings, basic agricultural buildings and routine agricultural management activities) must demonstrate a net environmental benefit;
- iii. A development application for land containing a wildlife corridor (as identified on the Wildlife Corridors Map), must demonstrate a long-term net benefit to the operation and retention of the wildlife corridor. Compliance with this provision may also meet the requirements of (ii);
- iv. Where development is unable to be sited, designed and managed to avoid potential adverse impacts on natural areas (as identified on the Natural Areas and Habitat Map), a proposal to remove habitat may be considered. If habitat is proposed to be removed or impacted as part of a development, an offset for the loss of biodiversity may be considered by Council provided it can be demonstrated that the proposed offset will maintain or improve biodiversity outcomes and values.



Notes:

Although Council applies a typical compensatory planting ratio of



3:1, there may be circumstances where a higher rate of compensatory planting is required. Such planting requirements will have specific regard for the particular flora species and ecological communities involved as well as their distribution, local significance and status under the *Biodiversity Conservation Act 2016* and the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999*.

An offset for the loss of biodiversity values may involve the use of the NSW Biobanking Scheme (administered by the NSW State Government) or compensatory planting undertaken on the basis of a minimum ratio of 3:1 (replanting:removed).

- v. Development applications relating to land to which this section applies are to be accompanied by an ecological assessment report prepared by an appropriately qualified and experienced professional.



Notes:

Having regard for the BLEP 2012, assessment of the implications of development in relation to natural areas and habitat may be determined through the consideration of the following matters:

- Surface and ground water quality & quantity
 - Stormwater, pollutants, contaminants, flow variation, water movement, water distribution, groundwater and water table.
- Terrestrial & aquatic flora & fauna
 - Habitat value, availability and quality, key threatening processes, threatened species, condition and significance of vegetation, koala habitat and fish passage.
- Ecological, habitat and *biodiversity* values
 - Ecosystem functions, regional context, system representation, riparian values, corridors, migration opportunities, connectivity, barriers to connections, inter and intra regional connectivity, habitat quality and accessibility.
- Access to public land
 - Human access to natural areas, access to foreshore and public recreation areas.
- National Parks or reserves
 - Potential implications for access, habitat value, achievement of reserve purposes and risks to reserves.
- Soil erosion & sedimentation
 - Topsoil, bank stability, creek function and terrain modification.

With respect to demonstration of a net environmental benefit:

- The extent of works and documentation required will be dependent on the nature of the proposed development. For example, development involving the clearing of vegetation and the erection of multiple structures will likely require



specific study of the potential impacts and extensive environmental repair/ improvements.

- Where on site improvements are not reasonable or possible, Council may consider alternate arrangements to facilitate off site environmental enhancement.
- It should be noted that dwellings and basic agricultural buildings (e.g. farm sheds) and activities (e.g. practices that support lower intensity agricultural uses such as grazing) are not subject to the net environmental benefit requirement. However, such uses are subject to those elements of this section that relate to ecologically sensitive areas.

Environmental buffers may also relate closely to requirements associated with mosquito management and bushfire management.

3.3A Koala Habitat Management

3.3A.1 Application

Applies to:	
Location/s:	Land shown on the Preferred Koala Habitat and/or Core Koala Habitat maps as contained within the Ballina Shire Koala Management Strategy.
Development Type/s:	All development.



Note:

Land to which this clause applies may also be shown on the Natural Areas and Habitat Map and/or Wildlife Corridors Map. Where this is the case, the provisions of both clauses 3.3 and 3.3A apply. In the event of inconsistency, the provisions of clause 3.3A prevail.

3.3A.2 Planning Objectives

- a. To support a self-sustaining long-term koala population in Ballina Shire.
- b. To retain and consolidate areas of core koala habitat and create or enhance koala habitat linkages.
- c. To minimise the potential for adverse impact on koalas within current and future areas of koala habitat.

3.3A.3 Development Controls

- i. Development applications for development and/or subdivision proposals on land containing areas of preferred and/or core koala habitat must meet the requirements of the *Ballina Shire Core Koala Habitat Comprehensive Koala Plan of Management (CKPoM)* contained within Part 5 of the *Ballina Shire Koala Management Strategy (2017)*.



- ii. Where an application also triggers the requirement for a Biodiversity Assessment Report (BDAR) under the provisions of the *Biodiversity Conservation Act 2016*, the Koala Impact Assessment Report under Part 5.4 of the CKPoM must be an appendix to the BDAR.
- iii. All development is to be sited, designed and managed to avoid or mitigate potential adverse impacts on areas containing preferred and/or core koala habitat.



Note:

1. The provisions of the CKPoM as they relate to core koala habitat are applied to both core and preferred koala habitat under the terms of this clause. Essentially, the provisions of the CKPoM relating to core koala habitat are extended to apply to preferred koala habitat under the DCP framework.
2. Notwithstanding the application of the DCP to core koala habitat, all development applications on land comprising core koala habitat must comply with the requirements of the CKPoM contained in Part 5 of the *Ballina Shire Koala Management Strategy (2017)* and the terms of *State Environmental Planning Policy (Biodiversity and Conservation) (2021)*.
3. All development applications to which this clause applies must be accompanied by a koala habitat impact assessment report. This includes applications where the proposed development does not involve the clearing of vegetation.
4. A koala habitat impact assessment report must be prepared by a suitably qualified person. The report must be prepared in accordance with the structure set out in Table 5 of the CKPoM and must address the matters for consideration set out in section 5.5 of the CKPoM.

3.4 Potentially Contaminated Land

3.4.1 Application

Applies to:	
Location/s:	All zones.
Development Type/s:	All development.

3.4.2 Planning Objectives

- a. Ensure development is consistent with *State Environmental Planning Policy (Resilience and Hazards) 2021*;
- b. Ensure that contamination risks are identified and assessed early in the development process; and
- c. Minimise potential risks associated with land contamination.



3.4.3 Development Controls

- i. All development must comply with the Ballina Shire Council *Policy for the Management of Contaminated Land*.



Notes:

The Ballina Shire Council *Policy for the Management of Contaminated Land* specifies the circumstances where an assessment of contaminated land is required.

3.5 Land Slip/Geotechnical Hazard

3.5.1 Application

Applies to:	
Location/s:	All zones.
Development Type/s:	All development.

3.5.2 Planning Objectives

- a. Ensure that development in any area of potential landslip or highly reactive soils has proper regard to factors affecting land stability;
- b. Ensure development on steep or unstable land is compatible with the nature of the hazard and with the environmental characteristics of the site and surrounding land; and
- c. Ensure that development is designed to minimise risks associated with geotechnical hazards.

3.5.3 Development Controls

- i. Where there is potential for a development to result in impacts on or be impacted by the stability of the subject site or surrounding locality, a geotechnical report prepared by an appropriately qualified and experienced professional may be required to accompany the development application. Such a report must certify that the stability of the site will be maintained during the course of, and following the development, and that the site is not subject to risk of land movement activity originating from other land;
- ii. The siting of buildings shall have particular regard to the slope of the land. Applications must demonstrate that the siting of buildings avoids steeper parts of the land that are or may be susceptible to erosion and potentially unstable. Buildings are to be sited to minimise earthworks required for the erection of structures and the provision of associated infrastructure such as roads and utility services; and
- iii. Construction methods should respond to the slope of the land and involve minimal cut and fill in accordance with the provisions of chapters 3 and 4.



Note:

Attached dual occupancy development within the Alstonville and Wollongbar R2 Low Density Residential Zone upon lots having a slope gradient of greater than 20% is deemed to be an inappropriate form of development having regard to land slip risk factors and the degree of site works (cut and fill / retaining walls) required.



3.6 Mosquito Management

3.6.1 Application

Applies to:	
Location/s:	All zones.
Development Type/s:	All development



Notes:

There may be development types not specifically mentioned in the development controls that may increase exposure of the community to nuisance mosquitoes. These may include developments including sporting fields, parklands, playing fields, or nature walks where the risk of mosquito exposure to the community may be high.

Alternative strategies may be required to mitigate these risks (e.g. permanent or temporary signage). This also includes developments where a change of use requires consent given the potential increased risk of exposure to nuisance mosquitoes (e.g. outdoor dining or recreational activities are created within previously approved developments).

3.6.2 Planning Objectives

- a. Minimise nuisance and health risk associated with mosquitoes through minimising contact between humans and mosquitoes.

3.6.3 Development Controls

Screening Requirements

- i. All windows, external doors and other openings in buildings for high-risk development comprising **centre-based child care facility, residential accommodation, tourist and visitor accommodation, seniors housing, caravan parks** (including manufactured home estates) or a **respite day care centre**, throughout Ballina Shire, must have insect screening installed. These screens must be maintained in good working order to prevent entry of mosquitoes into buildings. Self-closing doors may be a suitable alternative to screening in high traffic areas in non-residential developments.
- ii. Where a building in (i) includes large openings which are impractical to effectively screen (such as bi-fold doors), the following provisions apply:
 - For the room/s containing the opening - when the opening is closed (as may be the case when mosquito activity is elevated) there is light and ventilation available to the room that meets the provisions of the BCA via other openings that are effectively screened as in 3.6.3i.



- iii. **Tourist and visitor accommodation, centre-based child care facility, seniors housing, caravan parks** (including manufactured home estates) or **respite day care centres** (and residential developments where Council considers it necessary to minimise mosquito risk), on land identified as “Coastal Plains and Lowlands” or “High Risk Areas” on the Mosquito Management Map, must provide an effectively screened permanent (or with the capacity for effective temporary screening) outdoor area. This is unless a report from a consultant suitably qualified and experienced with mosquitoes and their management (or similar entomological experience) deems otherwise. Compliance with this requirement will enable nuisance-free outdoor activity in areas of either high-risk mosquito activity or during periods of peak mosquito activity.



Notes:

Council strongly encourages the provision of screened indoor/outdoor areas for other development types so as to enable outdoor activity and ensure the quality of lifestyle can continue to be enjoyed during periods of elevated mosquito activity. An example of temporary screening are those that are retractable.

The screened indoor/outdoor areas must be of an adequate size for the type of anticipated activities to be undertaken and number of people using the area.

Rainwater tanks

- iv. Where rainwater tanks are installed, both the inlet and outlet (overflow) must be effectively screened with stainless steel or other durable materials to prevent entry to the tank by mosquitoes. Inlet filters must be readily removable for cleaning.
- v. Rainwater tanks installed with a charged stormwater system an in ground first flush system must be installed to allow the charged stormwater system to fully drain. Where it is not possible to provide a first flush system that fully drains all openings must also be adequately screened to prevent mosquito entry.
- vi. All screening and structures including tanks and pipes must be adequately maintained to prevent mosquito entry.

Development on Coastal Plains and Lowlands

- vii. Development on land identified as “Coastal Plains and Lowlands” on the Mosquito Management Map that comprises one or more of the following:
- Residential subdivision involving the creation of more than 10 lots.
 - High risk development types as identified in 3.6.3i. on land not presently zoned for urban development.
 - Stormwater management devices (for example, bioretention swales, raingardens, constructed wetlands, or drains) or other water features (for example ornamental ponds or dams) designed to, or capable of holding water for a period in excess of 48 hours after inflows have ceased.





Must provide either:

- A minimum 100m wide buffer in a form suitable for the management of mosquito risk between the source of mosquito hazard/breeding sites and proposed urban land uses.
- A “mosquito impact assessment” prepared by a consultant, suitably qualified and experienced with mosquitoes and their management (or similar entomological experience), that addresses the risk to humans associated with mosquitoes and associated management measures. The assessment must specifically address the potential to include a buffer zone between the source of mosquitoes and proposed land use and assess the potential for any proposed stormwater management devices or other water bodies to produce mosquitoes of nuisance or public health concerns.

Development on Elevated Lands

- viii. Any development on land identified as “Elevated Lands” outside the areas designated as “High Risk” on the Mosquito Management Map that comprises one or more of the following:
- Residential subdivision involving the creation of more than 10 lots.
 - High risk development types as identified in 3.6.3i on land not presently zoned for urban development and assessed by Council to represent a risk of exposure to mosquitoes of nuisance or public health concern.
 - Stormwater management devices (for example, bioretention swales, raingardens, constructed wetlands, or drains) or other water features (for example ornamental ponds or dams) designed to or capable of holding water for a period in excess of 48 hours after inflows have ceased.

Must provide either:

- A minimum 100m wide buffer in a form suitable for the management of mosquito risk between the source of mosquito hazard/breeding sites and proposed urban land uses.
- A “mosquito impact assessment” prepared by a suitably qualified and experienced professional that assesses the potential for any proposed stormwater management devices or other water bodies to produce mosquitoes of nuisance or public health concern and, if required, addresses the risk to humans associated with mosquitoes and associated management measures.



Notes:

The Mosquito Management Map illustrates areas of Ballina Shire identified as having high mosquito risk associated with known and suspected breeding sites. The map divides the shire into two categories:

“Coastal Plains and Lowlands” includes all land below the RL 10 metre contour on the main north south escarpment in the shire as well as land to the south and west of the Blackwall Range extending to the Tuckean Swamp. These areas (and those immediately adjacent) are much more likely to be affected by mosquitoes of nuisance and public health



significance (especially, but not limited to, *Aedes vigilax* and *Verrallina funerea*).

The balance of the shire, described as “Elevated Lands”, is less likely to be significantly influenced by mosquitoes. In this situation local knowledge can be a very useful guide as to what areas are more likely to be affected. Generally, these could be expected to be where breeding sites on the coastal plain are in close proximity to the escarpment (e.g. there are small sections of the shire that are located within the areas designated as “Elevated Lands” but also within the zone highlighted as “Area of High Mosquito Risk” as indicated by Mosquito Management Map.) or where heavy vegetation provides shelter for resting adult mosquitoes. There may also be pockets where mosquitoes associated with localised water bodies have an influence.

Depending on environmental or climatic conditions, the areas affected may vary from year to year with the abundance and diversity of mosquito populations, and associated intensity of nuisance and public health risks, dependent on such factors as seasonal temperature fluctuations, rainfall, and drought.



Notes:

The requirements for development on land identified as “Coastal Plains and Lowlands” on the Mosquito Management Map may not be required if:

- The development does not have stormwater management devices or other water bodies that hold water in excess of 48 hours after inflows have ceased, and the proposal is an infill development, or
- The development is sufficiently removed from identified mosquito breeding or harbourage areas or Coastal Wetlands, where Council is of the opinion that the involvement of a consultant, suitably qualified and experienced with mosquitoes and their management (or similar entomological experience), is unlikely to result in benefit to the residents of the development or adjacent developments.

Similarly, the requirements for development on land identified as “Elevated Lands”, outside the areas designated as “High Risk” on Mosquito Management Map, may not be required if the development does not have stormwater management devices or other water bodies that hold water in excess of 48 hours after inflows have ceased.

Playgrounds and Recreational Facilities

- ix. Development comprising residential subdivision involving the creation of more than 10 lots on land identified as “Coastal Plains and Lowlands” or “High Risk Area” must consider the exposure to mosquitoes when designing and locating playgrounds and other recreational facilities such as exercise equipment and picnic areas. This is to include:
- Measures to be taken to ensure the facilities are not located close to mosquito habitat and suitability of surrounding areas for mosquitoes is minimised (such as ensuring areas are not immediately surrounded by dense vegetation).
 - Minimising creation of opportunities for mosquitoes through shaded areas (artificial shade options may be preferable as an alternative to extensive tree cover depending on design).



Avoidance Program may be required

- x. For high-risk development types as identified in 3.6.3i (except for residential subdivision) located on the “Coastal Plains and Lowlands” or “High Risk Area” a “Mosquito Awareness and Avoidance Program” is required to minimise mosquito risks. The mosquito awareness and avoidance program must inform existing and future users of the level of mosquito activity at the development.

The Program must include but not be limited to:

- Information distributed to interested purchasers/future and current residents/users, outlining known nuisance and health risks associated with local mosquitoes.
- Mosquito avoidance strategies.
- Recommended personal protective measures.
- Measures to reduce or eliminate onsite/backyard mosquito breeding.

The Program must be ongoing and be developed by a suitably qualified and experienced professional.

Mosquito Impact Assessment Requirements

- xi. A “mosquito impact assessment” required under (vii) or (viii) must include:
- Documentation of the qualifications and experience of the person(s) undertaking the assessment.
 - Details of the methodologies used.
 - Evidence that fieldwork has been undertaken between November and April, or detailed explanation as to why fieldwork undertaken outside this period provides sufficient information to make an assessment on mosquito risk.
 - Reference made to mosquito population data collected by Ballina Shire Council and available from the NSW Arbovirus Surveillance and Mosquito Monitoring Program.
 - Reference to all relevant documents related to the proposed development (especially plans of management for the site, stormwater, and vegetation including revegetation).
 - Information detailing measures to minimise the potential impact on future residents or site users from mosquitoes originating within and external to the development site.
 - All considerations in Appendix C: Checklist of Considerations When Developing a “Mosquito Impact Assessment” and Appendix D: Checklist for Mosquito Impact Assessment Report for Proposed Developments.
- xii. Where a “mosquito impact assessment” was carried out in relation to the development site at rezoning stage, the proposal must implement the recommendations and obligations of the assessment as endorsed by Council at the rezoning stage.

Stormwater Management Device Design Requirements





xiii. Stormwater management devices/infrastructure must be designed so they do not hold water for more than 48 hours after inflows have ceased to minimise the potential for the creation or enhancement of mosquito habitat while facilitating easy maintenance. Details of such devices/infrastructure must:

- Include designs accompanied by a hydrological report confirming infiltration rates/periods of water retention.
- Be developed in consultation with Council, to ensure the design facilitates easy maintenance.
- Include maintenance requirements that specifically relate to vegetation, sediment, and physical attribute management to prevent the provision of suitable mosquito habitat over time.

The design and maintenance plans must be assessed by a suitably qualified and experienced professional to confirm adequacy.

xiv. Other water features designed to retain water for more than 48 hours (e.g. dam/pond), these must:

- Be developed in consultation with a suitably qualified and experienced professional (mosquito consultant/entomologist).
- Provide specific design elements (e.g. depth, bank slope, macrophyte zone) in planning process for review.
- Provide a guide for any aquatic vegetation, including a species list of plants, and planting densities
- Be developed in consultation with Council, to ensure the design facilitates easy maintenance.
- Include details of maintenance requirements that specifically relate to preventing the provision of suitable mosquito habitats.





Notes:

The mosquito consultant must be involved from the earliest stages of a development proposal to enable input to stormwater management system design, revegetation and vegetation plans, “mosquito hazard reduction” buffer zone design and to ensure that an integrated approach is achieved.

It will be expected that recommendations will be based on a sound knowledge of all the nearby habitats, together with reference to existing data collected by Ballina Shire Council on local mosquito populations (as part of the NSW Arbovirus Surveillance and Mosquito Monitoring Program) and their nuisance and public health threats that could be expected to significantly affect the development. This may require work over an extended period of time to satisfactorily meet the expectations of Council.

Fieldwork must be completed between November and April to provide the optimal opportunity for analysis of potential mosquito impacts. The onus is on the applicant to demonstrate mosquito surveys have been conducted using a sufficient methodology to reliably measure mosquito activity during this period and/or following suitable climatic/environmental conditions. The winter period is not considered a suitable period for accurately quantifying potential impacts unless sound justification is provided in the consultant report.

The onus is on the applicant to demonstrate that mosquito nuisance and/or associated disease problems are not unacceptably serious and/or that strategies that address those risks have been satisfactorily met.

The operation of adult mosquito traps as a means to mitigate nuisance and public health risks of mosquitoes is not an appropriate strategy. The operational constraints and burden associated with establishment, maintenance, and consumable expenses are considered unsustainable.

The use of mosquito control agents against adult mosquitoes to minimise mosquito risks is not considered an ecologically sustainable approach in Ballina Shire. While these products will kill flying or resting mosquitoes they can have an adverse impact on other insects, and subsequently wildlife, while also increasing the risk that resistance to these control agents may develop in mosquitoes. The financial and operational requirements in maintaining a development wide program of insecticide applications, is also considered an unsustainable approach to mitigate nuisance and public health risks of mosquitoes.

Design and Maintenance Plan Requirements

- xv. To minimise the potential for water bodies, such as ponds, designed to retain water permanently, or in excess of 48 hours after inflows have ceased to create or enhance conditions for mosquitoes, the following features must be incorporated into the design and maintenance plans:
- The batter around the water body must be as steep as practical (within the design standards for public safety) to minimise areas of shallow water (<300mm). If fencing is not used for public safety, a batter must be no more than 1:6; batters greater than 1:6 must be fenced.
 - Deep water areas should be incorporated (>600mm) where possible, except for the margins and/or specific macrophyte zones where required for water quality improvements.
 - Water bodies should be sited to maximise wind action over open water areas during summer



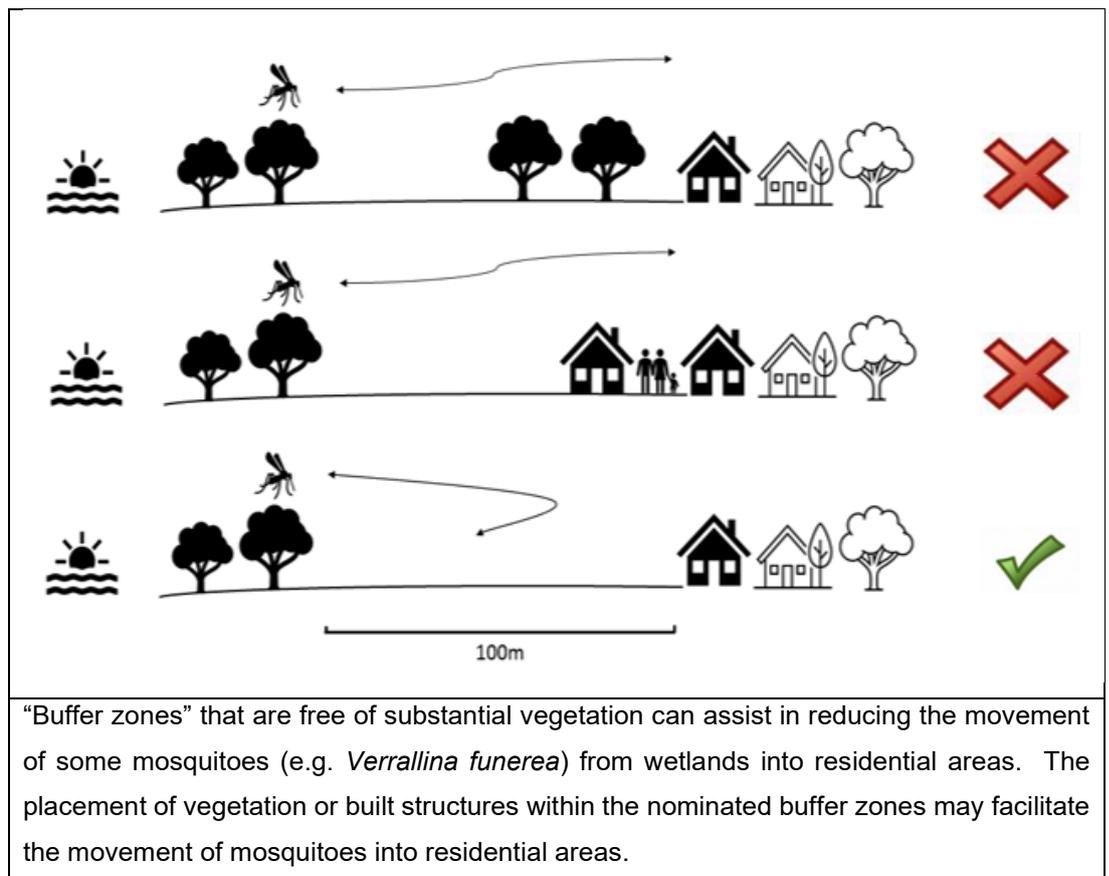
months; water surface disturbance will contribute to less suitable conditions for immature mosquitoes and adult mosquito egg-laying.

- Macrophytes should not be planted in more than 60% of shallow water around the margin. Where planted, macrophytes must be clumped with separations of open water allowing wind disturbance on the water surface and predator access to immature mosquitoes.
- The margins of water bodies must not be densely planted with shrubs or trees to create refuge for adult mosquitoes, restrict wind disturbance of water surface, or create operational restrictions on access by machinery required for maintenance.
- Water bodies should be designed in such a way to maximise biodiversity, including the introduction of endemic fish species if appropriate.
- Be designed in consultation with a suitably qualified and experienced mosquito consultant/entomologist.

Mosquito Buffer Zone Requirements

- xvi. Where mosquito buffer zones are proposed between the development and mosquito habitat as a strategy to reduce mosquito impacts, the following design features must be incorporated:
- Provision of adequate width as supported by the “mosquito impact assessment”.
 - Free of dense vegetation or other structures which facilitate mosquito dispersal and provides harbourage for resting adult mosquitoes.
 - Free of structures or features (e.g. waterbodies) that have the potential to act as mosquito breeding sites.
 - Do not contain any type of dwelling or any part such as verandas or garages.
 - Vegetation that is easily maintained.
 - Incorporate roadways, bike and footpaths or other suitable open areas.
 - Width calculated to the edge of the allotment. In some circumstances, a portion of the buffer may include privately owned land in developments facing constraints regarding the effective implementation of a suitable buffer. In such situations it is important the property owner clearly understand the restrictions on the use of this area. Such information must therefore be made available on a planning certificate under Section 10.7 of the Environmental Planning and Assessment Act 1979 and restriction placed on affected lots under the Conveyancing Act 1919.





“Buffer zones” that are free of substantial vegetation can assist in reducing the movement of some mosquitoes (e.g. *Verrallina funerea*) from wetlands into residential areas. The placement of vegetation or built structures within the nominated buffer zones may facilitate the movement of mosquitoes into residential areas.

Figure 1 Unsuitable and Suitable Buffer Zone Locations



Notes:

Ideally mosquito buffers should be free of vegetation except for mowed grass but the maintenance burden of such areas can be challenging. If alternate vegetation is proposed, the vegetation types must be tall growing lightly foliated native trees with a high canopy that cast minimal shade over the ground around it, while airflow around the lower limbs and base is maximised.

Dense low shrubs, closely planted, can provide refuge for mosquitoes. The extent of plantings should therefore be minimised or allowances made for open areas between plantings so they do not create connections between more substantial adult mosquito refuges and residential developments.

The denser the foliage and canopy of a tree or shrub, the greater likelihood is that it will provide suitable refuge for mosquitoes. High density plantings especially around recreational facilities (e.g. swimming pool, playgrounds, picnic areas) further contribute to the creation of suitable refuge areas.

If vegetation is proposed to be removed from the site in order to provide a mosquito buffer, the vegetation removal must form part of the development proposal and appropriate flora and fauna assessments are to be undertaken and submitted with the application. Council will generally not support the removal of vegetation, unless it comprises only minor tree removal, in order to provide a mosquito buffer.



3.7 Waste Management

3.7.1 Application

Applies to:	
Location/s:	All zones.
Development Type/s:	All development.

3.7.2 Planning Objectives

- a. Ensure that waste is disposed of in accordance with relevant legislation and Council's collection and disposal services; and
- b. Ensure that waste management practices are based on minimising waste and maximising reuse and recycling of materials.

3.7.3 Development Controls

- i. A site waste minimisation and management plan (SWMMP), addressing the items identified in Table 2.2 as a minimum, must be prepared in relation to development where waste will be generated and requires disposal;
- ii. A SWMMP must demonstrate how the proposed development will achieve the objectives set out in 3.7.2.
- iii. Where (i) applies,
 - Waste management must be carried out in accordance with an approved SWMMP;
 - Evidence to show where construction and/or demolition waste has been transported and disposed of is to be retained until an Occupation Certificate or Subdivision Certificate has been issued.



Notes:

All waste generated as part of any development must be disposed of in accordance with the *Protection of the Environment and Operations Act 1997* and regulations and in accordance with the *Local Government Act 1993*.

A template for completion of a SWMMP is provided at Appendix A.

Design of waste management facilities and their conformity with the requirements of this DCP will be considered having regard to Council's Policy *Waste Management for Multi-Unit Developments*.



Table 2.2 - Minimum content to address in a SWMMP

Consideration		Development category					
		Subdivision with engineering works	Demolition	Dwelling-houses and Dual Occupancy	Multi unit residential	Commercial, industrial, and change of use	Rural and other
Storage							
Stockpile	Environmental factors such as slope, drainage, proximity to watercourses and native vegetation to be taken in to account when deciding a stockpile location.	✓	✓	✓	✓	✓	✓
	Sufficient space to be provided for the storage of garden and other waste materials on site.	✓	✓	✓	✓	✓	✓
	Facilitate on site source separation.	✓	✓	✓	✓	✓	✓
	Facilitate and encourage reuse of materials on site.	✓	✓	✓	✓	✓	✓
Site waste receptacles	Provide sufficient space for recyclables and garbage on site.		✓	✓	✓	✓	✓
	Facilitate on site source separation.	✓	✓	✓	✓		✓
	Facilitate and adjust design to be able to reuse materials on site.	✓	✓	✓	✓	✓	✓
Waste cupboard	Provide space for temporary storage of recyclables, garbage and compostable materials in each development unit.			✓	✓	✓	✓
	Facilitate onsite source separation.			✓	✓	✓	✓
	Design and location to be accessible and useable.			✓	✓	✓	✓
	Design and locate to cater for change of use.					✓	✓
Garbage and recycling area/ room	Area or room to be large enough to store Council's standard bins efficiently.			✓	✓	✓	✓
	Accessible to all users and to Council's usual collection point.			✓	✓	✓	✓
	If communal areas are proposed – behind building line.				✓	✓	✓
	Provide area(s) for storage of bulky waste (e.g. clean up materials).				✓	✓	
	Volume reduction equipment where proposed.				✓	✓	
	Multiple areas are required if large development, or if site characteristics warrant it.				✓	✓	
Composting	Provision of external composting space.			✓	✓	✓	✓
	Must be separate to garbage and recycling room.			✓	✓	✓	



Ballina Development Control Plan 2012

CHAPTER 2 - GENERAL AND ENVIRONMENTAL CONSIDERATIONS

	Purpose built and incorporated into the landscape plan for the development.			✓	✓	✓	
	Potential impact on neighbouring properties assessed.			✓	✓	✓	✓
	Availability of on site composting facility to be well signposted.				✓	✓	
Garbage Shute	For developments larger than 3 storeys.				✓	✓	✓
Special Waste	Appropriate disposal as detailed by relevant authority.					✓	✓
Collection							
Collection point	On site.				✓	✓	✓
	At street frontage.			✓	✓	✓	✓
	Clear access is to be provided to facilitate pick up.			✓	✓	✓	✓
Management							
Waste management plans See Templates provided in Appendix A	Complete form 1	✓	✓	✓	✓	✓	✓
	Complete form 2		✓	✓	✓	✓	✓
	Complete form 3			✓	✓	✓	✓
	Complete form 4				✓	✓	✓
	Complete form 5				✓	✓	✓
Ongoing management	Implement administrative arrangements for ongoing management, including transportation of waste from garbage and recycling room to the collection point and to manage the composting procedure.				✓	✓	✓



Notes:

The SWMMP is required at Development Application (DA) stage, with the exception of construction waste detail. This detail can be submitted with the Construction Certificate (CC) once a builder has been appointed.

The waste management facilities proposed as part of the development should be clearly illustrated on plans accompanying the DA.

In the absence of project specific waste and recycling calculations, the rates specified in Appendix B, and Council's current rate of provision of services to residential properties can be used to inform the preparation of a SWMMP.

A SWMMP is not required for Exempt and Complying development. However, in carrying out the development,



generated waste should always be minimised during construction and operation of any activity.

There are penalties involved with the unauthorised use of recycled demolition materials for fill. Council's Regulatory Services Group can provide advice as to what approvals and other requirements apply.

3.8 On-site Sewage Management Systems

3.8.1 Application

Applies to:	
Location/s:	All zones.
Development Type/s:	All development that is not connected to/capable of being connected to Council's reticulated sewerage system.

3.8.2 Planning Objectives

- a. Ensure that on-site sewage management systems are designed and operated to ensure protection of ground and surface water, including drinking water supplies;
- b. Encourage and provide for the use of water recycling systems where appropriate;
- c. Prevent public health risk from the spreading of disease by micro-organisms;
- d. Prevent degradation of soil and vegetation including soil structure, salinisation, water logging, chemical contamination and soil erosion; and
- e. Ensure that neighbouring properties are not adversely affected by effluent or effluent management systems.

3.8.3 Development Controls

- i. All development must comply with the *Ballina Shire Council On-Site Sewage and Wastewater Management Strategy*.



Notes:

On-site management of sewage may only be undertaken where no reticulated sewer network exists (see Section 3.11 Provision of Services).

The type of management strategy needed for different sites can vary. It is advised that applicants proposing an on-site sewage management system consult with Council's Regulatory Services Group for further information.

In addition to any development approval obtained, approval under Section 68 of the *Local Government Act* 1993 is also required with respect to On-site Sewage Management Systems. Application for a Section 68 approval should be made concurrently with a development application.



3.9 Stormwater Management

3.9.1 Application

Applies to:	
Location/s:	All zones.
Development Type/s:	All development (excluding <i>dwelling houses</i> , <i>dual occupancies</i> and <i>secondary dwellings</i>)

3.9.2 Planning Objectives

- a. Convey runoff from the site and upstream catchments, to a lawful point of discharge, in a manner that minimises flood damage and risk to people and property.
- b. Manage stormwater as an integral part of the total water cycle, preserving natural waterways and riparian zones, optimising use/reuse of rainwater/stormwater and protection of downstream ecological values by removing pollutants generated from the development in runoff.
- c. Manage post development stormwater runoff flows to not exceed pre development values.
- d. Provide sustainable, low maintenance stormwater infrastructure.

3.9.3 Development Controls

A Stormwater Conveyance and Discharge

- i. Stormwater runoff from upstream catchments must not be impeded at the site boundary and is to be safely conveyed through the site.
- ii. Stormwater runoff from the site is to be conveyed to a lawful point of discharge.
- iii. Stormwater conveyance will have a Major/Minor System configuration. Minor flows will be conveyed and contained in a system of kerb and gutter, pits and pipes/culverts. Major flows (flow in excess of Minor System capacity) will be conveyed in overland flow paths designed to cater for such flows.
- iv. The stormwater conveyance system will conform to the design criteria and provide capacity, flood immunity, flow, depth and velocity characteristics designated by the primary standard in Section E.

B Water Sensitive Design

- i. Development must minimise the quantity of directly connected impervious surface areas and maximise retention of stormwater runoff.
- ii. The ecological health of natural drainage systems, waterways, waterbodies and their riparian zones is to be preserved.
- iii. Development must achieve the following minimum reductions in pollutant loads (TP, TSS, TN and GP) in relation to untreated runoff from the proposed development (based on a comparison of the unmitigated development case versus the developed mitigated case).



- 80% reduction in total suspended solids (TSS).
 - 60% reduction in total phosphorus (TP).
 - 45% reduction in total nitrogen (TN).
 - 90% reduction in gross pollutants (GP).
- iv. Opportunities for rainwater/stormwater use to reduce potable water consumption are to be identified and optimised.
- v. Stormwater management systems are to be appropriate for the proposed land use, the site and the remainder of the upstream and downstream catchments.

C Manage Stormwater Runoff from Development

- i. Changes to the natural or pre-development runoff volume, peak discharge rate, frequency, duration and velocity of stormwater by development and associated stormwater systems must be mitigated and managed to ensure no adverse flooding or ecological impacts on downstream land, landuse and receiving systems.
- ii. Stormwater runoff is not to be generated, concentrated or diverted by development in a manner that causes any adverse flooding impacts, damages or nuisance to any downstream persons, public or private property.

D Lifecycle for Stormwater Infrastructure

- i. The operation, maintenance and life cycle costs of stormwater infrastructure must be sustainable in the long term.
- ii. Stormwater infrastructure is to be accessible for safe maintenance, and minimise the risk of injury, damages or nuisance to the public, users and operational staff.
- iii. Stormwater infrastructure located in the public domain must not diminish the amenity of the surrounding landscape.

E Standards

- i. The primary standard for provision and design of stormwater management systems and infrastructure is the "Ballina Shire Council Stormwater Management Standards for Development". The secondary standard is the "Northern Rivers Local Government Development and Design Manual". Where there is any inconsistency between these standards the primary standard shall prevail to the extent of the inconsistency.
- ii. The primary and secondary standards are to be observed for:
- Compliance with the Development Controls A – D;
 - Stormwater management systems and infrastructure, design, construction and operation; and
 - Stormwater related documentation accompanying Development and Construction Certificate Applications.





- iii. Compliance with Development Controls A - D is satisfied by compliance with appropriate "deemed to comply" solutions provided in the primary standard.

3.10 Sediment and Erosion Control

3.10.1 Application

Applies to:	
Location/s:	All zones.
Development Type/s:	All development.

3.10.2 Planning Objectives

- a. Encourage implementation of contemporary best practice in erosion and sediment control;
- b. Prevent land degradation by soil erosion through inappropriate land use practices;
- c. Protect waterways and sensitive environments from being degraded by increased sediment load;
- d. Promote and protect *biodiversity* by minimising cumulative impacts of sedimentation on the environment; and
- e. Protect amenity and prevent discharge of sediment on to both public and private land.

3.10.3 Development Controls

- i. All soil erosion and sediment control measures must be designed, installed and maintained in accordance with *Managing Urban Stormwater – Soils and Construction* (the Blue Book);
- ii. Sediment and erosion control measures proposed to achieve the objectives under **3.10.2** are to be provided and effectively maintained commencing from the construction phase of development until the site has been stabilised by permanent vegetation cover or a hard surface. This is to include:
 - the prevention of soil erosion and the transportation of sediment material into any roadway, natural or constructed drainage systems, watercourse and or adjoining land;
 - the backfilling of service trenches as soon as practicably possible;
 - downpipes are to be connected as soon as practicably possible or otherwise temporary downpipes are to be used;
 - buffer vegetation zones are to be retained on sites that adjoin roadways, drainage systems and/or watercourses;
 - sediment and erosion control measures are to be maintained throughout the construction phase of the development and beyond, where necessary;
- iii. For construction sites, a single all-weather access way is to be provided on site that extends from the public road system to the building site. All construction vehicles are to enter and exit the site via this access way so as to minimise erosion on site and prevent the movement of soil material onto surrounding roadways; and





- iv. A preliminary Sediment and Erosion Control Plan or Soil and Water Management Plan prepared in accordance with *Managing Urban Stormwater – Soils and Construction* (the Blue Book) must be submitted in support of any development application for subdivision involving civil works.



Notes:

Under the *Protection of the Environment Operations Act 1997* substantial penalties apply where soil or other pollutants enter stormwater drains or waterways, or where materials are placed in a position where this is likely to occur.

Applicants should consult Council's Regulatory Services Group to determine the need for a Sediment and Erosion Control Plan or Soil and Water Management Plan.

3.11 Provision of Services

3.11.1 Application

Applies to:	
Location/s:	All zones.
Development Type/s:	All development.

3.11.2 Planning Objectives

- a. Ensure adequate water, electricity, sewerage, drainage, road and telecommunication facilities are provided to development;
- b. Ensure development is compatible with the capacity of the reticulated sewerage network and environmental characteristics of land;
- c. Provide flexibility for the provision of alternative water, electricity and telecommunications sources where appropriate; and
- d. Protect public health.

3.11.3 Development Controls

A Water Supply

- i. Development shall be provided with an adequate water supply connection or have suitable arrangements in place for the provision of an adequate water supply service.
- ii. Development requiring a water supply is to be connected to a reticulated water system where such a connection is practically available to the site (alternate water sources may be provided in conjunction with reticulated services).
- iii. Any business or facility (not household supplies) that supplies people with drinking water from an independent water supply shall comply with the *Private Water Supply Guidelines*, published by NSW Health. This includes water pumped from rivers, creeks, bores, dams and rainwater tanks.



- iv. Business involved in the preparation or manufacture of food must use potable water for all activities associated with these activities. Non potable water may be used only where it can be demonstrated that it will not adversely affect the safety of the food handled by the food business.



Notes:

Rural developments in bushfire prone areas must maintain a static water supply reserve dedicated for fire fighting purposes. For specific requirements for water storage for fire fighting purposes refer to current version of the NSW Rural Fire Service publication *Planning for Bushfire Protection*.

The Private Water Supply Guidelines (NSW Health) provide details on managing private water supplies using the risk management approach and aim to assist operators in complying with the requirements of the Australian Drinking Water Guidelines (NSW Health).

B Electricity Supply

- i. Development shall be provided with an adequate connection to grid supplied electricity services.
- ii. Alternative electricity sources for development other than subdivision may be considered where the provision of reticulated services is uneconomic due to cost of connection or there is a clear environmental benefit in not connecting to mains infrastructure.

C Sewage Management

- i. Development shall be provided with an adequate reticulated sewer connection or have suitable arrangements in place for such a connection to be made where the reticulated sewer network is available to the site. Access to the reticulated sewer network must have capacity to allow such connection.
- ii. Where no reticulated sewer network exists, wastewater disposal must meet the requirements of Section 3.8 in relation to on-site sewage management.



Notes:

Where a lot is connected to the reticulated sewer network, an on-site sewage management system cannot be used to meet sewage management requirements. This also applies where the reticulated sewer network is at capacity.

Fig Tree Hill Estate, Lennox Head:

Historically, dual occupancy development within the Fig Tree Hill Estate has not been permitted due to inadequate sewerage capacity. Despite dual occupancy developments being permissible in rural zones under the provisions of the Ballina LEP 2012, the current capacity of the reticulated sewer network prevents dual occupancy development as the requirement for suitable arrangements for connection to the sewer network to be



in place cannot be met unless capacity is increased.

In 1983, Council approved a subdivision for 50 dwellings within the Fig Tree Hill Estate. An on-site sewage disposal method for each household was trialed but found to be ineffective.

Consequently, reticulated sewer was installed as per the development consent conditions. In 1994, Council approved an additional 12 allotments under the closer rural settlement housing of the LEP, as they then applied. Council approved this subdivision on the basis that reticulated services, including sewer services, were presently available and able to cater for the development.

Dual Occupancy development will not be supported on lots highlighted in the Fig Tree Hill Neighbourhood Map.

D Stormwater and Drainage

- i. Development must comply with the requirements set out in Sections 3.9 and 3.10 relating to stormwater management and erosion and sedimentation control.

E Road Access

- i. Development must comply with road access requirements contained in Chapters 3, 4, 5, 6, 6a, 6b, 6c, 6d, 7 and 8 and the *Northern Rivers Local Government Development & Design Manual*.

F Telecommunications Infrastructure

- i. Development shall be provided with adequate access to the telecommunications network for both fixed line telephone services and high speed internet access.
- ii. Alternative means of telecommunications access for development other than subdivision may be considered where the provision of fixed line services is uneconomic due to cost of connection or there is a clear environmental benefit in not connecting to fixed line infrastructure.

3.12 Heritage

3.12.1 Application

Applies to:	
Location/s:	All zones.
Development Type/s:	Development within or adjoining sites identified as being of heritage significance under the BLEP 2012 and 1987 or State or National Heritage Registers.

3.12.2 Planning Objectives

- a. Conserve the environmental heritage of Ballina Shire;
- b. Conserve archaeological sites; and
- c. Conserve places of Aboriginal heritage significance.



3.12.3 Development Controls

- i. Development proposals involving items of local, State or national *heritage significance* must identify the extent to which the carrying out of any proposed development would affect the *heritage significance* of the identified item and proposed management and/or mitigation measures.
- ii. A Statement of Heritage Impact (SOHI) must be prepared with respect to impacts on heritage values (either on or adjacent to the site of the proposed development) for any proposal that involves alterations, demolition or disturbance in relation to *heritage items* except as follows:
 - Any proposal to make minor alterations to existing heritage items or places, where the work does not involve:
 - repainting of existing paint work;
 - replacement of a roof the same type as the original;
 - maintenance or reconstruction of existing elements the same as the original;
 - landscaping that does not involve removal of significant trees.
 - Other work that does not have the potential to adversely impact on the character or identified heritage values of the heritage item or place that is deemed to be minor by Council;
- iii. Applications are to be accompanied by an archaeological assessment prepared by an appropriately qualified person where land incorporates, or is adjacent to, known item(s) of Aboriginal cultural significance or where advice from the Jali Local Aboriginal Land Council indicates that such an assessment should be undertaken. The assessment is to include evidence of liaison with the Jali Local Aboriginal Land Council and appropriate State Government Agencies, and is to be based on the Office of Environment and Heritage's *Aboriginal Cultural Heritage Assessment Guidelines*.
- iv. New development adjacent to land on which a *heritage item(s)* is located must be carried out in a manner sympathetic to the character and significance of the *heritage item*.
- v. When considering a proposal to erect a building on land on which there is a building which is an item of environmental heritage, the gross floor area of the item of environmental heritage may be excluded from the calculation of the gross floor area of the buildings erected on the land for the purpose of determining the number of parking spaces to be provided on the site, but only if the conservation of the building which is an item of environmental heritage depends upon the application of the exclusion.



Notes:

Work is only considered to be minor for the purpose of this provision where Council has agreed in writing that the scope of proposed work is minor and may proceed without the need for preparation of a Statement of Significance.

Items of Aboriginal cultural significance include Aboriginal objects and Aboriginal places of heritage significance.

With respect to Aboriginal heritage matters, applicant's should note that the *National Parks and Wildlife Act* and the associated Regulation may be applicable to development proposals.



3.13 Drinking Water Catchments

3.13.1 Application

Applies to:	
Location/s:	Land identified as being located within a drinking water catchment on the BLEP 2012 Drinking Water Catchment Map.
Development Type/s:	All development.

3.13.2 Planning Objectives

- a. Ensure that development does not adversely impact on water quality within drinking water catchments or groundwater resource areas that are part of the public water supply network.

3.13.3 Development Controls

- i. Development must not adversely impact on the water supply associated with the catchment. This may be determined through the consideration of at least the following matters:
 - Type, extent and risk of any likely or potential pollutants or contaminants. (including consideration of chemicals such as fertilisers and pesticides, sediment, effluent and nutrients)
 - Volume and quality of stormwater runoff;
 - Variation to water flows in the catchment;
 - Loss or embellishment of catchment vegetation;
 - Access and infrastructure requirements;
 - Distance between the proposed development and any waterway that feeds the drinking water supply;
 - Cumulative and incremental effects having regard for existing and approved uses within the catchment;
- ii. Details of proposed safeguards must demonstrate that the effective mitigation of the identified impacts can be achieved. The materials used, longevity of the measure, ongoing maintenance requirements and likelihood of success must be considered to determine the suitability of the proposed measure.
- iii. The proposed development must not be of a type that could reasonably be carried out on an alternative site. Existing approvals, dwelling entitlements, compatibility with surrounding uses and zone objectives, scale and intensity and proximity to surface water or groundwater bores should be considered to determine whether the proposal is reasonable within the water supply area.
- iv. Where development is located within the Emigrant Creek Dam or Marom Creek Dam catchments, the proposal is to be designed having regard for the Rous Water On-site Wastewater Management Guidelines as applicable at the time of application.



Notes:

Development applications may need to be referred to the relevant water supply authority. Referrals will be determined having regard for the type, scale and intensity of the proposed development. As a guide, the following types of development proposed within a catchment will be considered for referral:

- Development involving potential discharge of chemical pollutants or other contaminants that may pose a risk to health into the water resource in the catchment.
- Development involving large scale clearing or *earthworks*.
- Development in close proximity to the water resource.
- Development requiring direct access to the water resource supplying the public water supply system (either to draw water or discharge water or other materials into a waterway).
- Certain on-site sewage management facilities.

3.14 Coastal Hazards

3.14.1 Application

Applies to:	
Location/s:	Land identified on the Coastal Hazard Protection Map.
Development Type/s:	All development.

3.14.2 Planning Objectives

- a. Ensure that development does not significantly compromise longer-term *coastal hazard* management strategies;
- b. Ensure that the type, scale and/or location of new developments reflect the level of risk posed by *coastal hazards*;
- c. Minimise the potential for damage to existing and proposed developments posed by *coastal hazards*; and
- d. Minimise amenity, social, economic and environmental impacts associated with *coastal hazards* and their management.

3.14.3 Development Controls

A Area A, Lennox Head – Land adjacent to Seven Mile Beach southward from Byron Street.

- i. Building foundations on all beachfront allotments are to comprise piling supporting a suspended floor and be designed to support the building for the condition of removal of soil to RL 2.0 metres AHD including any lateral loadings imposed by a soil mass failure to this level. The design is to be prepared by an appropriately qualified engineer experienced in the design of buildings in coastal hazard areas and is also to be certified that the design will allow ocean inundation from



- waves overtopping the seawall to dissipate across the lot without affecting adjoining properties by way of additional inundation or scouring;
- ii. Piling referred to in (i) is to be sufficient to fully support the proposed building and is to be designed and certified by a suitably qualified structural engineer;
 - iii. Property owners must maintain and repair any damage to the revetment wall protecting their property in accordance with the Lennox Beach Protection Works Design/ Plan and under the supervision of a suitably qualified engineer;
 - iv. On all beachfront allotments, boundary fences eastward of the eastern *building line* shall be a maximum height of 1 metre above *ground level (finished)* and shall be of an open style construction (i.e. not a solid screen fence); and
 - v. Fully cantilevered balconies are permitted to extend up to 1.8m eastward of the eastern *building line* (subject to no unreasonable adverse impacts on adjoining properties by way of view loss, privacy or shadowing).
 - vi. The requirements of (i) and (ii) do not apply to minor improvements and renovations or in relation to maintenance works.



Notes:

Specific *building lines* are applicable to land within the area adjacent to Seven Mile Beach south of Byron Street. This information is contained on the Building Line Map.

B Area B, Lennox Head – Land Seaward of Immediate Hazard Line between Byron Street and the Lake Ainsworth Sport and Recreation Centre.

- i. Development proposals on land seaward of the identified Immediate Hazard Line must be suitably designed by a suitably qualified structural engineer and have the ability to accommodate potential erosion and inundation hazards;



Note:

The above planning provision will have limited implications for private property as the immediate hazard zone affects a small area along the frontage of about 18 private allotments and the standard *building line*, if applied, will ensure that new development is predominately sited landward of the immediate hazard zone.

- ii. Building foundations must be designed to address the effect of the zone of reduced bearing capacity and minimum floor levels may apply where there is a threat of inundation. Design criteria for foundations are as follows:
 - Building foundations are to comprise piling supporting a suspended floor and be designed to support the building for the condition of removal of soil to RL 2.0 metres AHD including any lateral loadings imposed by a soil mass failure to this level. The design is to be



prepared by an appropriately qualified engineer experienced in the design of buildings in coastal hazard areas and is also to be certified that the design will allow ocean inundation from waves overtopping the seawall to dissipate across the lot without affecting adjoining properties by way of additional inundation or scouring;

- Piling referred to above is to be sufficient to fully support the proposed building and is to be designed and certified by a suitably qualified structural engineer;
 - Plans, sections and elevations submitted must identify:
 - Floor levels and **ground level (existing)** and **ground level (finished)**;
 - Top and bottom levels of foundations, footings or piles; and
- iii. The requirements of (i) and (ii) do not apply to minor improvements and renovations or in relation to maintenance works.

C Area C, Lennox Head – Land between the Immediate Hazard Line and the Maximum 50 Year Hazard Line, between Byron Street and Lake Ainsworth Sport and Recreation Centre.

- i. Development is permitted on land that is landward of an adopted interim planning line (22 metres landward of the designated immediate hazard line based on a 10 year planning period – refer to illustration in the Coastal Hazard Protection Map).
- ii. Development is permitted on land that is seaward of an adopted interim planning line, subject to design by an appropriately qualified engineer to accommodate erosion and inundation potential. Foundations must address the effect of the zone of reduced bearing capacity and minimum floor levels may apply where there is the threat of inundation. The following design criteria is applicable:
- Building foundations are to comprise piling supporting a suspended floor and be designed to support the building for the condition of removal of soil to RL 2.0 metres AHD including any lateral loadings imposed by a soil mass failure to this level. The design is to be prepared by an appropriately qualified engineer experienced in the design of buildings in coastal hazard areas and is also to be certified that the design will allow ocean inundation from waves overtopping the seawall to dissipate across the lot without affecting adjoining properties by way of additional inundation or scouring;
 - Piling referred to above is to be sufficient to fully support the proposed building and is to be designed and certified by a suitably qualified structural engineer;
 - Plans, sections and elevations submitted must identify:
 - Floor levels and ground level (existing) and ground level (finished);
 - Top and bottom levels of foundations, footings or piles; and
- iii. The requirements above do not apply to minor improvements and renovations, or in relation to maintenance work which are permitted on all land.



Notes:

Where consent is granted to an application to carry out development on land to which this section applies, an advisory note similar to those below may be included within the Notice of Determination.

- *Land Seaward of the Immediate Hazard Line, between Byron Street and the Lake Ainsworth Sport and Recreation Centre*
Advisory note: Council is aware that the subject land is within the Immediate Hazard Zone as identified in the Ballina Shire Coastline Hazard Definition Study. Council accepts no liability for any potential harm, loss or damage in respect of the approved development on the land as a result of coastal hazards.
- *Land between the Immediate Hazard Line and the Maximum 50 Year Hazard Line, between Byron Street and Lake Ainsworth Sport and Recreation Centre*
Advisory Note: Council is aware that the subject land is within the Maximum 50 Year Hazard Zone as identified in the Ballina Shire Coastline Hazard Definition Study and is within the Interim Planning Zone as identified in the Ballina Coastline Interim Measures and Action Plan. Council accepts no liability for any potential harm, loss or damage in respect of the approved development on the land within the Interim Planning Zone as a result of coastal hazards.



Notes:

The following terms as used in section 3.14 are defined as:

- *Minor improvements and renovations* – comprises development defined as 'exempt development' in accordance with *State Environmental Planning Policy (Exempt and Complying Development) 2008* and alterations and additions that do not result in the floor area of a building exceeding 1.2 times the floor area of that building (as measured on 11 August 2005, being the commencement date of the former DCP 17) nor cost more than 20% of the current value of the building. (The cost of the alterations and additions and the current value of the building shall be compared at equivalent current prices and identified in Development Applications, for approval by Council).
- *Maintenance* – is defined as replacing defective, worn-out, rotten and/or damaged materials within the building with similar new materials.
- *Zone of reduced bearing capacity* – refers to land that is located landward of a receding erosion scarp where slumping may occur. Definition of the extent of the zone of reduced bearing capacity requires professional assessment on a site by site basis.



3.15 Crime Prevention through Environmental Design

3.15.1 Application

Applies to:	
Location/s:	All land (except as specified below).
Development Type/s:	All development that includes: <i>business premises,</i> <i>commercial premises,</i> <i>community facilities,</i> industrial land uses, non-residential development in residential zones (except <i>home businesses</i>). public use areas, <i>residential accommodation</i> (except <i>dwelling houses, rural workers' dwellings, dual occupancies, secondary dwellings</i> and <i>semi-detached dwellings</i>), <i>retail premises,</i> and/or <i>tourist and visitor accommodation.</i>

3.15.2 Planning Objectives

- a. Provide opportunity for surveillance of premises to enhance public safety;
- b. Provide clear delineation of property access points and the distinction between public and private space; and
- c. Minimise the use of building elements that create concealed or low visibility spaces:

3.15.3 Development Controls

- i. Development proposals to which this clause applies must include a Crime Risk Assessment carried out in accordance with the process and principles contained in *Crime Prevention and the Assessment Of Development Applications* (Department of Urban Affairs and Planning).



Notes:

Council may refer applications to the NSW Police for comment with respect to the principles of crime prevention through environmental design.

3.16 Public Art

3.16.1 Application

Applies to:



Location/s:	Zone E2 Commercial Centre (Ballina). Zone E1 Local Centre (Alstonville, Lennox Head, Ballina Heights Estate, Cumbalum Precinct B, Wollongbar, Lennox Head, Skennars Head and Wardell). Zone E3 Productivity Support. Zone MU1 Mixed Use. Zone RE2 Private Recreation. Zone RU2 Rural Landscape.
Development Type/s:	<i>Commercial premises and tourist and visitor accommodation, recreation facilities (outdoor), or recreation facilities (major)</i> with an estimated development cost in excess of \$1,000,000 (calculated in accordance with the <i>Environmental Planning and Assessment Regulation</i>).

3.16.2 Planning Objectives

- a. Recognise the importance of artistic expression to community well-being;
- b. Cultivate a climate in which innovative and creative design contributes to the cultural life, liveability and amenity of Ballina Shire;
- c. Provide for public art which:
 - is designed in a manner which respects and enhances the “sense of place”;
 - reflects the cultural diversity of the community;
 - respects the history of the place and community; and
 - recognises Aboriginal cultural heritage.

3.16.3 Development Controls

- i. Development must include public art in a civic space as an integral part of the development to the minimum value as outlined in Council’s Public Art Policy;
- ii. Public art is to be provided in a location on the development site that is freely accessible to members of the public and is to be permanent and durable;
- iii. A Public Art Plan is to be prepared that provides details of the proposed public art and must be submitted as part of the Development Application. The Public Art Plan must include the following:
 - a) An illustration of the public art concept/s providing the expected form, dimensions, materials and location of the proposed public art.
 - b) A statement explaining the rationale behind the public art work and how it relates to the development and site.
 - c) A description of how the public will interact or access the public art.
 - d) A program for design, fabrication, installation of the public art and how it integrates with the construction of the development.
 - e) Expected life of public art, maintenance requirements and decommissioning arrangements.
 - f) Evidence of Public Liability Insurance to cover construction and installation of the public art.



- g) Expected expenditure for the public art and a budget for ongoing maintenance.
- h) Demonstration of how the proposed public art addresses the following Design Selection Criteria:
 - Demonstrates artistic excellence and innovation;
 - Demonstrates local and cultural appropriateness to the site and to Ballina Shire;
 - Is consistent with current planning, heritage and environmental policies and plans of management;
 - Meets relevant building and safety standards;
 - Considers public safety and the public's use of and access to the public artwork; and
 - Considers maintenance and durability, including potential for vandalism.
- iv. Any substantial changes to the Public Art Plan must be submitted to Council prior to the fabrication of the public artwork.
- v. Where artworks are to be intended to be transferred to Council upon completion of a development, a Detailed Public Art Plan is also required prior to a construction certificate being issued. A Detailed Public Art Plan is to include final design drawings, material specifications, engineering certificates and insurance documents.
- vi. A Public Art Report is to be submitted to Council prior to issue of an Occupation Certificate. The purpose of the Public Art Report is to satisfy Council that the public art has been delivered and the public art commitments have been fulfilled.
- vii. A condition of consent will be included in development consents issued involving public art, which will require the submission of a Public Art Report that addresses the following:
 - a) Location address of the artwork and its position within the development;
 - b) Name of the artist/s and the artist's statement relating to the public art;
 - c) Details regarding the fabrication and installation of the work;
 - d) Photos of the installed artwork;
 - e) Relevant documentation including material specifications, maintenance schedule and engineers' drawings or certificates;
 - f) The expected life of the artwork and ongoing maintenance requirements;
 - g) Evidence of public art expenditure; and
 - h) Any other relevant information regarding ownership, decommissioning arrangements, warranty or copyright of the work.
- viii. Where artworks are to be transferred to the care of Council, they will be accompanied by a maintenance schedule and a document transferring full rights of ownership to Ballina Shire Council. Council will have exclusive copyright licence of the works, however full copyright will remain with the artist/author of the work/object.

**Notes:**

Public art documents submitted to Council may be reviewed by Council's Public Art Advisory Panel for comment and any recommendations will be recorded and passed on to the developer.

The Northern Rivers Community Gallery (NRCG) can provide curatorial advice regarding local artists and creatives that may be suitable for public art projects.

For works to be provided on Private Land, there is no requirement to refer proposals to the Public Art Advisory Panel or seek advice from the NRCG. It is, however, open for applicants to use this service should they wish to do so.

It is open to applicants to request that Public Art required pursuant to this Chapter be placed on Public Land within a town or local centre (rather than on the development site). To meet this requirement, Council may accept the contribution of an equivalent amount towards the provision of public art in a public place. Under such circumstances the selection procedures documented in the Public Art Policy apply.

Development to which the policy applies must incorporate an item of public art with a minimum value of \$16,000 as an integral part of that development in a civic space.

To meet this requirement, Council may accept a payment of an equivalent amount towards the provision of public art in a public place.

3.17 Road Widening

3.17.1 Application

Applies to:	
Location/s:	Land shown on the Road Widening Policy Map.
Development Type/s:	All new development or the intensification of existing development (except a change of use where there is no change to the building footprint).

3.17.2 Planning Objectives

- a. Ensure that suitable public road corridors are available to service the needs of the community.
- b. Provide for safe long term vehicle access within the public road network.

3.17.3 Development Controls

A Ballina

- i. Development on land identified on the Road Widening Policy Map in the Ballina Town Centre must include dedication of land at the street/lane frontage of the site as follows:
 - Tamar Street (north side) between Kerr and Martin Streets - 6 metres
 - Tamar Street (south side) between Kerr and Martin Streets - 6 metres



- Winton Lane (north side) between Kerr and Moon Streets - 1.9 metres
 - Winton Lane (north side) between Cherry and Martin Streets - 1.9 metres
 - Holden Lane (north side) between Kerr and Cherry Streets - 1.9 metres
- ii. Development on land identified on the Road Widening Policy Map in the Ballina Town Centre on the eastern side of Kerr Street between River Street and Winton Lane must include the dedication of land along the rear (eastern) boundary of the site to a width of 6 metres. This land dedication is to enable the future provision of a public laneway thoroughfare between River Street and Winton Lane.



Notes:

The dedication of land in Tamar Street is to support improved public car parking.

The dedication in Winton Lane and Holden Lane is to support improved traffic movement.

Land dedicated to Council for the purpose of providing on street car parking will be credited towards full or partial on-site parking requirements. One car parking credit will be given for each 2.6 metres of dedication on a Tamar Street frontage excluding any frontage retained for driveway crossings.

No compensation, either financially or in terms of car parking credits, shall be given in respect of the Winton Lane widening requirement on the basis that it is necessary to accommodate the increase in traffic generated by the progressive conversion of land in Tamar Street from residential to commercial usage.

Council will negotiate compensation for land required to implement its Holden Lane widening plans on the basis that lane widening is necessary to accommodate the increase in traffic generated by commercial developments on land between the lane and Tamar Street and not for the medium density development of the affected land.

B Alstonville

- i. Development on land identified on the Road Widening Policy Map in the Alstonville Village Centre area must include dedication of land as follows:
- Main Street, (north side) between Green Street and Bugden Lane - 12 metre wide strip of land along northern boundary; and
 - Daley Street, Alstonville – appropriate width to enable provision for future road widening.



Notes:

The Main Street dedication is required for the purpose of providing public access and parking. This 12 metre wide strip will consist of a 6 metre wide access aisle with a 6 metre wide row of car parking between it and the original rear property boundary. The planning intention is to provide a laneway link from the existing public car park off Commercial Road & Bugden Lane eastwards to Green



Street, to facilitate commercial traffic, parking and loading operations.

Car parking spaces provided to Council will remain as permanent car parking credits for existing and future developments on the land from which they originated.

Properties that have frontage to Commercial Road will be required to provide their site access via Commercial Road unless other suitable arrangements can be made so that the number of car parking spaces required under the dedication is maintained, either within the laneway or elsewhere in the village centre.

C Lennox Head

- i. Development on land identified on the Road Widening Policy Map in the Lennox Head Village Centre area must include dedication of land as follows:
 - Rayner Lane (west side) - 3.6 metre wide strip of land along the Rayner Lane frontage; and
- ii. Where new development occurs on the corner of a lane, a corner splay of 2.5 metres by 2.5 metres must be dedicated to Council.



Notes:

The dedication is required to improve the functionality, amenity and safety of Rayner Lane as both a pedestrian and vehicular thoroughfare.

The 3.6 metre wide strip of land at the rear of the allotments will comprise 2.3 metres of parking and 1.3 metres of pedestrian footpath.

3.18 Protection of Foreshore and Public Open Space Areas

3.18.1 Application

Applies to:	
Location/s:	Land adjoining foreshore and public open space areas.
Development Type/s:	All development.

3.18.2 Planning Objectives

- a. Enhance the visual quality of the coastal environment; and
- b. Ensure development complements the landscape character and public use and enjoyment of adjoining **foreshore** areas, parks, bushland reserves and other public open spaces.

3.18.3 Development Controls

- i. Public access to public open space and **foreshore** areas is to be maximised;



- ii. Buildings are to be located to provide an outlook to public open space and **foreshore** areas, without appearing to privatise that space;
- iii. Development is to be designed to minimise adverse impacts on views to and from public open space (having regard to public spaces not private property);
- iv. Development is to be designed to ensure that beach areas are not subject to light spill that has the potential to adversely impact on native fauna;
- v. Development is to provide management buffers on private land in relation to matters such as bushfire protection;
- vi. Development should be designed to maximise opportunities for casual surveillance of public open space;
- vii. Development is to be screened utilising landscaping or existing landscape elements;
- viii. Development to which this section applies must demonstrate compliance with the following;
 - On urban land, development must not result in beaches or adjacent open space being overshadowed before 3.00pm (Australian Eastern Standard Time) at winter solstice (June 21) or 6.30pm (Australian Eastern Daylight Saving Time) at summer solstice (December 21), or
 - On other land, development must not result in beaches or waterfront open space being overshadowed before 3.00pm (Australian Eastern Standard Time) at winter solstice (June 21) or 6.30pm (Australian Eastern Daylight Saving Time) at summer solstice (December 21).



Note:

The provisions of (iii) are designed to address the maintenance of the amenity values associated with public land for the broader community. The provision is not designed to provide for the protection of views to public land from private property.

3.19 Car Parking and Access

3.19.1 Application

Applies to:	
Location/s:	All land.
Development Type/s:	All development.

3.19.2 Planning Objectives

- a. Provide sufficient on-site car parking to adequately service the needs of the occupants, users, visitors, employees and service and delivery vehicles of a development;
- b. Ensure compliance with relevant standards and that provision is made for the safe and efficient circulation of vehicles entering, exiting and manoeuvring within the site;
- c. Maintain vehicular and pedestrian safety through design standards for the access to car parking areas;



- d. Integrate the location and design of car parking with the design of the site and building without compromising street character, landscape or pedestrian amenity and safety;
- e. Ensure access to off-street car parking does not unreasonably impact on the provision of parking within the public street system; and
- f. Provide adequate loading areas for commercial developments.

3.19.3 Development Controls

A. Parking and Loading Layout Standards

- i. All parking spaces in commercial and industrial developments must be available for unrestricted public access and employee use.
- ii. Parking for people with disabilities is to be provided in accordance with the requirements of the Building Code of Australia and designed in accordance with the requirements of Australian Standard 2890.
- iii. Parking spaces for people with disabilities shall be covered by a waterproof roof or awning structure:
 - a. in new development comprising commercial, industrial or **tourist and visitor accommodation** uses (or any combination thereof) and that has an aggregated floor area greater than 500m², or
 - b. in public car parks containing 20 or more spaces.
- iv. Stack parking is not permitted for commercial developments; however, consideration may be given where a dedicated parking attendant is on site at all times.
- v. Car parking shall be designed in accordance with Australian Standard 2890 and the RTA Guide to Traffic Generating Developments;
- vi. Car parking spaces required for customer parking in commercial, business and retail developments are to be freely accessible at all times and must not be gated or secured for exclusive use in any form;
- vii. Site access and kerb crossover points shall have adequate sight distances and are to be designed to ensure that all vehicles are able to safely enter and exit the site while maintaining the safety and integrity of the road network;
- viii. The visual impact of car parking areas is to be softened by the incorporation of appropriate landscaping;
- ix. Vehicular access points are to be provided from rear lanes or secondary street frontages wherever possible;
- x. Vehicular access points should be located to increase or maximise on-street parking opportunities;
- xi. Driveways and car parking areas must not hinder the free flow of pedestrians on or adjacent to the site;
- xii. Where possible, car parking areas should be designed to facilitate the long-term integration of car parking areas between allotments;



- xiii. The number of loading bays to be provided shall be determined having regard to the scale and type of use proposed. In this regard, full details of the anticipated volume and frequency of deliveries shall be supplied with each development application;
- xiv. Service areas and loading bays should be designed to cater for the vehicles and servicing operations anticipated to occur in a particular development. Designs shall comply with Australian Standard 2890.2 Part 2: Off-street commercial vehicle facilities; and
- xv. The location and design of loading bays are to integrate into the overall design of the building, be separate from customer car parking areas and be appropriately screened when located adjacent to sensitive adjoining land uses.

A1. Parking and Loading Layout Standards - Additional Requirements for Lennox Head

- i. New developments shall be required to provide loading bays located wholly within the subject site. Such loading bays are not to be accessed from Ballina Street.
- ii. Loading bays and turning areas should have dimensions designed in accordance with the size of vehicles that will service the site.
- iii. No loading / unloading / deliveries is permitted on or from Ballina Street during the hours of 9.00am to 5.00pm.

B. Car Access and Manoeuvring Areas

- i. All car parking spaces are to be accessed via an access driveway. Direct access to car parking spaces from a road or lane is not permitted. However, where site constraints prevent this opportunity, Council may consider alternatives.
- ii. The maximum driveway gradient shall be in accordance with the AS 2890 and the Northern Rivers Local Government Development & Design Manual.
- iii. All parking and service areas shall be provided with sufficient manoeuvring areas to allow vehicles to enter the site in a forward direction, park and leave the site in a forward direction in no more than three separate movements (3 point turn). This requirement does not apply to **dwelling houses**. **Dual occupancy** developments may also be exempt on merit and where there are no potential internal driveway conflicts.
- iv. Designs for manoeuvring areas are to be in accordance with Australian Standard 2890 and must include a swept path analysis for the relevant design vehicle.
- v. The design of loading bays and service areas shall be in accordance with Australian Standard 2890.

B1. Car Access and Manoeuvring Areas – Additional Requirements for Lennox Head

- i. Redevelopment of allotments located on the eastern side of Ballina Street shall obtain vehicular access from either Rayner Lane or Rutherford Street. Any redevelopment of allotments located on the western side of Ballina Street shall obtain vehicular access from Park Lane.



- ii. A maximum of one vehicular access point is to be provided to each property so as to increase opportunities for parking within the street system. Driveway locations should be located so as to maximise on street parking opportunities.

C. Structures Adjacent to Driveways

- i. Where a driveway is accessed from a lane, any gate must be fully automated so that vehicles are not required to temporarily stop in the lane way.
- ii. Boundary fencing, garages, carports, landscaping, vegetation, signs or any other structures adjacent to a driveway that exceed 1 metre in height are to demonstrate compliance with Australian Standard 2890 in relation to the provision of sight lines for vehicles and pedestrians. No permanent sight obstruction exceeding 1 metre in height shall be located within the identified clearance area for sight distances.

D. Access Driveways and Circulation Roadways

- i. Access driveways and circulation roadways are to be designed and constructed in accordance with the requirements of Australian Standard 2890.

E. Car Parking Requirements

- i. Unless otherwise specified elsewhere in this DCP, car parking is to be provided in accordance with the schedule contained in Table 2.3. Where a proposed use is not represented in Table 2.3 or elsewhere in this DCP, the rates under the *RTA Guide to Traffic Generating Developments* will apply. If a rate is not provided by the *RTA Guide to Traffic Generating Developments*, a merit based assessment will apply.
- ii. Car parking requirements for development to which the requirements of *SEPP 65 - Design Quality of Residential Apartment Development* and the *Apartment Design Guide* apply shall provide car parking in accordance with part 3J of the *Apartment Design Guide*.
- iii. The car parking requirements specified in Table 2.3 are minimum requirements. All required spaces associated with commercial and industrial uses shall be made available for unrestricted public access and employee use. Where car parking spaces are proposed to be designated for private use, such spaces are required to be additional to the minimum specified requirements.
- iv. **Precinct 1 West Ballina Enterprise Corridor.**
A reduction in the provision of car parking spaces for a development may be considered when the following provisions are satisfied:
 - a. The development application is supported by a traffic and car parking analysis report prepared by a suitably qualified professional. This report is to demonstrate that the proposed provision of car parking is adequate to cater for the peak parking needs of the development.
- v. **Precinct 2 West Ballina Enterprise Corridor.**



A reduction in the provision of car parking spaces for a development, from that prescribed in Table 2.3, for live/work development may be considered when the following provisions are satisfied:

- a. The development must provide shop top housing above each industrial/commercial tenancy;
 - b. Where courtyard car parking, including the provision of appropriate landscaping is provided;
 - c. There is sufficient off-street parking spaces provided within the live/work development and adequate justification is provided demonstrating that their use (by residential visitors) will primarily occur outside of the identified business hours then no requirement for visitor car parking will be required;
 - d. Off-street car parking shall be provided for the use of all industrial and commercial tenancies;
 - e. Parking for residential units shall be provided in a ground floor garage or undercover area;
 - f. Residential entries shall be located directly from the public street or common area and clearly demarcated from the entries to the commercial components; and
 - g. No vehicular access is to be provided from a street frontage other than the combined access point.
- vi. **Precinct 4 West Ballina Enterprise Corridor fronting River Street.**

A reduction in the provision of car parking spaces for a development may be considered when the following provisions are satisfied:

- a. The development must provide shop top housing above each industrial/commercial tenancy;
- b. The building and associated structures demonstrate good architectural form, an active street frontage and logical access and parking;
- c. It can be demonstrated that available on-street parking spaces will only be required to cater for peak demand and that the typical usage patterns can be accommodated on-site; and
- d. It can be demonstrated that any peak time parking shortfall will not detrimentally impact adjoining land owners and the general public in terms of an unreasonable on-street parking usage.



Note:

In this DCP, except in so far as the context or subject matter otherwise indicates or requires:

- **Gross floor area** (GFA) and **gross leaseable floor area** (GLFA) are to be calculated as per the definitions contained in the *RTA Guide to Traffic Generating Developments*.
- Where reference is made to car parking space per room, unit, bed, etc the reference is taken to mean that number or a part thereof, e.g. "1 per 2 bedrooms" means "1 car parking



space for every two bedrooms or part thereof.

- Where the number of spaces required is expressed as a decimal, e.g. "1.25 per unit" the total number of spaces so determined will be rounded up to the next whole number. For example, if 1.25 spaces are required per unit, then for 5 units the requirement will be 6.25 spaces, ie when rounded up, 7 spaces. Similarly, 7 units at 1.25 per unit will require 9 car parking spaces.

Table 2.3 – General Car Parking Requirements	
Land Use	Car Parking
<i>Amusement centre</i>	4 spaces per 100m ² GFA plus 1 per 2 employees
<i>Attached Dwellings</i>	2 spaces per <i>dwelling</i> <ul style="list-style-type: none"> At least 1 required car parking space per dwelling must be covered. Stack parking is an acceptable solution.
<i>Backpackers accommodation</i>	1 space per 5 beds
<i>Bed and breakfast accommodation</i>	1 space per guest bedroom plus 2 spaces per <i>dwelling</i>
<i>Boarding house</i>	See <i>SEPP (Housing) 2021</i>
<i>Boating facility</i>	See <i>wharf</i>
<i>Business premises</i>	<p>1 space per 40m² GFA</p> <p>Ballina Town Centre</p> <ul style="list-style-type: none"> 1 space per 25m² gross floor area at ground floor level. 1 space per 40m² gross floor area at first floor level and above. <p>Lennox Head Precinct A</p> <ul style="list-style-type: none"> 1 space per 25m² Gross Floor Area (GFA) to be provided on site. A minimum of 25% of total required spaces to be available for customer accessible parking. <p>Lennox Head Precinct D</p> <ul style="list-style-type: none"> 1 space per 25m² Gross Floor Area (GFA). A minimum of 25% of total required spaces to be available for customer accessible parking.



Table 2.3 – General Car Parking Requirements	
Land Use	Car Parking
<i>Bulky goods premises</i>	1 space per 40m ² GFA
<i>Caravan park</i>	In accordance with the <i>Local Government (Manufactured Home Estates, Caravan Parks, Camping Grounds and Moveable Dwellings) Regulation 2000</i>
<i>Commercial premises</i>	See <i>business premises, office premises</i> or <i>retail premises</i>
<i>Community facilities</i>	Merit based
<i>Child care centre</i>	1 space per 4 children plus drop off/pick up area
<i>Dual Occupancies</i>	2 spaces per <i>dwelling</i> <ul style="list-style-type: none"> • At least 1 required car parking space per dwelling must be covered. • Stack parking is an acceptable solution.
<i>Dwelling house</i>	2 spaces per <i>dwelling</i> <ul style="list-style-type: none"> • At least 1 required car parking space per dwelling must be covered. • Stack parking is an acceptable solution.
<i>Educational establishment</i> (Primary)	1 space per 12 students plus 1 space per 2 employees
<i>Educational establishment</i> (Secondary)	1 space per 10 students plus 1 space per 2 employees
<i>Educational establishment</i> (Tertiary)	1 space per 5 students plus 1 space per 2 employees
<i>Educational establishment</i> (Other – Located within the IN1 General Industrial zone)	Merit assessment. Parking rate to be determined based on a detailed Traffic Impact Assessment
<i>Entertainment facility</i>	1 space per 5 seats or 1 space per 5m ² of public floor space, whichever is greater
<i>Exhibition home</i>	2 spaces per home external to garage/ <i>dwelling</i> parking space
<i>Food and drink premises</i> (<i>not located in commercial centres</i>)	1 space per 3 seats or 15 per 100m ² GFA, whichever is the greater.
<i>Food and drink premises</i>	<ul style="list-style-type: none"> • 1 space per 25m² of gross floor area at ground floor level. • 1 space per 40m² gross floor area at the first floor level and above.



Table 2.3 – General Car Parking Requirements											
Land Use	Car Parking										
	<ul style="list-style-type: none"> On site car parking is required to be accessible parking. <p>Lennox Head Precinct A</p> <ul style="list-style-type: none"> 1 space per 25m² to be provided on site. A minimum of 75% of total required spaces to be available for customer accessible parking. <p>Lennox Head Precinct D</p> <ul style="list-style-type: none"> 1 space per 25m² GFA. A minimum of 75% of total required spaces to be available for customer accessible parking. 										
<i>Function centre</i>	1 space per 3 seats or 15 per 100m ² GFA, whichever is the greater.										
<i>Funeral home</i>	2 spaces plus either 1 space per 30m ² GFA or 1 per 5 seats in chapel, whichever is greater.										
<i>Garden centre</i>	1 space per 70m ² display area (including accessories). Where landscape supplies are included an additional 1 space per employee plus 2 visitor spaces and adequate loading/unloading area is to be provided.										
<i>Group home</i>	Refer <i>SEPP (Housing) 2021</i>										
<i>Hardware and building supplies</i>	1 space for 40m ² GFA.										
<i>Health consulting rooms</i>	3 spaces per consulting room plus 1 space per 2 employees plus any dwelling requirement. Ballina Town Centre 3 spaces per surgery or consulting room.										
<i>Home business</i>	<i>Dwelling</i> requirement plus 1 space for visitors plus 1 space per 2 non resident employees										
<i>Home occupation (sex services)</i>	As per parking provisions for <i>sex services premises</i> in section 3.2.3 of Chapter 8 – Other Uses. <table style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: left;">Number of Consulting Rooms</th> <th style="text-align: left;">Minimum Number of Car Parking Spaces Required</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>6</td> </tr> <tr> <td>3</td> <td>5</td> </tr> <tr> <td>2</td> <td>4</td> </tr> <tr> <td>1</td> <td>3</td> </tr> </tbody> </table>	Number of Consulting Rooms	Minimum Number of Car Parking Spaces Required	4	6	3	5	2	4	1	3
Number of Consulting Rooms	Minimum Number of Car Parking Spaces Required										
4	6										
3	5										
2	4										
1	3										
<i>Hospital</i>	Merit assessment. Parking rate to be determined based on a detailed Traffic Impact Assessment										



Table 2.3 – General Car Parking Requirements

Land Use	Car Parking
<i>Hotel or motel accommodation</i>	1.1 spaces per unit plus 1 space per 2 employees (on site at any one time) plus 1 space for on-site manager. If public <i>restaurant</i> included add 1 space per 30m ² GFA occupied by <i>restaurant</i> use. If function room included, add 1 space per 3 seats or 15 per 100m ² GFA whichever is the greater.
<i>Industrial training facility</i>	Merit assessment. Parking rate to be determined based on a detailed Traffic Impact Assessment.
<i>Industrial retail outlets</i>	4 spaces per 50m ² of retail gross floor area.
<i>Industry</i>	1.3 spaces per 100m ² GFA
<i>Kiosk</i>	See <i>food and drink premises</i>
<i>Landscape material supplies</i>	1 space per employee plus 2 visitor spaces and adequate loading/unloading area. Where applicable add 1 space per 70m ² product display/showroom area
<i>Live / work development</i>	1 space per dwelling requirement; plus 1 space per 75m ² for commercial / light industrial. No requirement for visitor car parking where clause 3.19.3 E v. c. matters are satisfied.
<i>Market</i>	2.5 spaces per stall
<i>Medical centre (Located in Central Business Districts)</i>	1 space per 25m ² gross floor area.
<i>Medical centre (Non CBD locations)</i>	3 spaces per consulting room plus 1 space per 2 employees plus any <i>dwelling</i> requirement
<i>Mortuary</i>	See <i>funeral chapel</i>
<i>Multi Dwelling Housing and Residential Flat Buildings</i>	1 space per dwelling where total GFA of dwelling is less than 60m ² . 1.5 spaces per dwelling where total GFA of dwelling is between 60m ² and 85m ² . 2 spaces per dwelling where total GFA of dwelling is greater than 85m ² . Plus 1 additional space per 5 dwellings for visitor parking. (Refer also to clause 3.19.3E ii.)
<i>Neighbourhood Shop</i>	See <i>Retail Premises</i>
<i>Office Premises</i>	1 space per 40m ² GFA.



Table 2.3 – General Car Parking Requirements	
Land Use	Car Parking
	<p>Ballina Town Centre</p> <ul style="list-style-type: none"> • 1 space per 25m² gross floor area at ground floor level. • 1 space per 40m² gross floor area at first floor level and above. <p>Lennox Head Precinct A</p> <ul style="list-style-type: none"> • 1 space per 25m² Gross Floor Area (GFA) to be provided on site. • A minimum of 25% of total required spaces to be available for customer accessible parking. <p>Lennox Head Precinct D</p> <ul style="list-style-type: none"> • 1 space per 25m² Gross Floor Area (GFA). • A minimum of 25% of total required spaces to be available for customer accessible parking.
<i>Place of Public Worship</i>	1 space per 3 seats or 15 per 100m ² GFA, whichever is the greater.
<i>Plant nursery</i>	See <i>garden centre</i>
<i>Pub</i>	1 space per 25m ² GFA. If public <i>restaurant</i> is included add 1 space per 3 seats or 15 per 100m ² GFA, whichever is the greater.
<i>Public administration building</i>	See <i>office premises</i>
<i>Recreation facility (indoor)</i>	Bowling Alley: 3 spaces per lane Squash Courts: 3 spaces per court Gymnasium: 4.5 spaces per 100m ² GFA Dance Studio: 1 space per 3 pupils Other activities: on merit
<i>Recreation facility (outdoor)</i>	Tennis Courts: 3 spaces per court Bowling Club: 21 spaces per green plus any restaurant and pub requirements where applicable Golf Course: 3 spaces per hole on course plus any restaurant and pub requirements where applicable Other activities: on merit
<i>Registered club</i>	See <i>pub</i>
<i>Residential Flat Buildings</i>	See <i>Multi Dwelling Housing</i>
<i>Restaurant</i>	See <i>food and drink premises</i>



Table 2.3 – General Car Parking Requirements	
Land Use	Car Parking
<i>Retail premises</i>	1 space per 40m ² GFA Ballina Town Centre <ul style="list-style-type: none"> • 1 space per 25m² gross floor area at ground floor level. • 1 space per 40m² gross floor area at first floor level and above. Lennox Head Precinct A <ul style="list-style-type: none"> • 1 space per 25m² GFA to be provided on site. • A minimum of 75% of total required spaces to be available for customer accessible parking. Lennox Head Precinct D <ul style="list-style-type: none"> • 1 space per 25m² GFA. • A minimum of 75% of total required spaces to be available for customer accessible parking.
<i>Roadside stall</i>	4 spaces per stall
<i>Rural supplies</i>	1 space per 40m ² GFA
<i>Secondary dwelling</i>	Nil
<i>Semi – detached Dwellings</i>	2 spaces per <i>dwelling</i> <ul style="list-style-type: none"> • At least 1 required car parking space per dwelling must be covered. • Stack parking is an acceptable solution.
<i>Self-storage premises</i>	1 space per 10 storage sheds, plus 1 space per 40m ² GFA office space.
<i>Seniors housing</i>	See <i>SEPP (Housing) 2021</i>
<i>Serviced apartment</i>	See <i>hotel or motel accommodation</i>
<i>Service station</i>	5 spaces per 100m ² GFA plus 6 spaces per mechanical service bay.
<i>Shop</i>	See <i>retail premises</i>
<i>Shopping centre</i>	Per area of gross leasable floor area (GLFA): 1-10,000m ² GLFA - 6.1 spaces per 100m ² 10,000 - 20,000m ² GLFA - 5.6 spaces per 100m ² 20,000 - 30,000m ² GLFA - 4.3 spaces per 100m ²



Table 2.3 – General Car Parking Requirements	
Land Use	Car Parking
	Over 30,000m ² GLFA - 4.1 spaces per 100m ²
<i>Shop top housing</i>	<i>Dwelling</i> requirement plus <i>shop</i> requirement
<i>Takeaway food or drink premises</i>	See <i>food and drink premises</i>
<i>Temporary land uses</i>	Car parking must comply with standards for comparable land uses where specified in the DCP or based on relevant guidelines published by the NSW Roads and Maritime Services. Car parking must be sufficient to meet demand generated by staff and visitors.
<i>Timber yard</i>	See <i>landscape material supplies</i>
<i>Tourist and visitor accommodation</i>	Car parking determined by the rate applicable to the most equivalent form of housing.
<i>Vehicle repair station</i>	6 spaces per service bay (service bays are counted as a car parking space).
<i>Vehicle sales or hire premises</i>	1 space per 100m ² display area plus 1 space per 70m ² spare parts sales area plus 1 space per employee plus adequate loading/unloading area for vehicle carriers.
<i>Veterinary hospital</i>	3 spaces per veterinarian plus 1 space per 2 employees (assistants/administration).
<i>Warehouse or Distribution Centre</i>	1 space per 300m ² GLA
<i>Wharf</i>	0.6 spaces per wet berth 0.2 spaces per dry berth 0.2 spaces per swing mooring 0.5 spaces per marina employee
<i>Wholesale supplies</i>	See <i>bulky goods premises</i>



Note:

Where a development comprises a 'mixed use development' and includes a residential component, all car parking for the residential component is to be provided on site. Section 94 Contributions for car parking shortfalls will not be accepted for the residential component of the development.



F. Car Parking Credits

- i. Council may acknowledge car parking credits for a site based on current or most recent approved uses.
- ii. Any car parking credit granted for an existing *restaurant* or *commercial premises* or use on a site shall be calculated at the following rate:
 - 1 space per 25m² gross floor area at ground floor;
 - 1 space per 40m² gross floor area at first floor level and above.
- iii. Where a developer contribution for car parking has previously been paid for a current approved use on a development site, new development will be entitled to car parking credits equivalent to the number of spaces for which developer contributions were received by Council.
- iv. Where a car parking credit has previously been granted for land dedications in conjunction with development, a new development on the same site will be entitled to an equivalent number of car parking credits.
- v. Car parking credits are only available for new development upon the land parcel associated with the current approved use. Car parking credits are not transferable to other development sites.

F1. Car Parking Credits - Lennox Head

- i. Car parking credit granted for existing shops, restaurants, commercial offices on a site shall be calculated at the rate of 1 space per 25m² GFA;
- ii. Car parking credits are only available for new development upon the land parcel associated with an approved current use. Car parking credits are not transferable to other development sites;
- iii. Where a development has previously paid for the construction of car parking in the public street system, new development of that same site will be entitled to car parking credits equivalent to the number of spaces which were previously paid for;
- iv. For every 5.4m of street frontage or part thereof dedicated to Council along Rayner Lane (in accordance with the provisions of Chapter 2), Council will credit one car parking space for existing and future developments on the land from which they originated;
- v. Where a developer contribution for car parking has previously been paid for a current approved use on a development site, new development will be entitled to car parking credits equivalent to the number of spaces for which developer contributions were received by Council;
- vi. Where a car parking credit has previously been granted for land dedications in conjunction with development, a new development on the same site will be entitled to an equivalent number of car parking credits; and
- vii. Car parking credits are only available for new development upon the land parcel associated with the current approved use. Car parking credits are not transferable to other development sites.



G. Alfresco Dining

- i. The dining area used to determine on site car parking requirements for food and drink premises will include any area identified for alfresco dining.

H. Monetary Contributions

- i. For development located within the Ballina Town Centre east of Kerr Street and south of Holden Lane, Council may accept a cash contribution in lieu of the provision of on-site car parking spaces for up to 20% of the required parking spaces. Such cases will be considered on merit with reference to:
 - the size of the development;
 - the sites proximity to, and the accessibility of, existing or proposed public car parking areas;
 - the demand for car parking generally in the locality; and
 - the general traffic flow in the area.
- ii. In locations not included under a car parking contributions plan, on-site car parking is to be provided on the land subject of the development.



Note:

The required contribution under (i) is to be made at rate applicable in Council's annual Schedule of Fees and Charges.

3.20 Vibration

3.20.1 Application

Applies to:	
Location/s:	All land.
Development Type/s:	All development.

3.20.2 Planning Objectives

- a. Ensure that construction methods proposed for new development adequately provide the structural protection of adjoining and surrounding properties; and
- b. Ensure that appropriate consideration is given to the impacts of construction methods for development on structural integrity of the surrounding built environment.

3.20.3 Development Controls

- i. Where driven piling is proposed as part of the construction methods for a proposed development, adequate provision is to be made to ensure the structural integrity of the surrounding built environment is protected and maintained.



3.21 Bushfire Management

3.21.1 Application

Applies to:	
Location/s:	All land that: <ul style="list-style-type: none"> • has been designated (mapped) as bush fire prone land under legislation; or • has been identified in the course of processing and determining a development application, as land that can support a bush fire or is likely to be subject to bush fire attack.
Development Type/s:	All development.

3.21.2 Planning Objectives

- a. Ensure that development does not occur in a manner that creates unreasonable safety risks to site occupants, the community and/or emergency services; and
- b. Ensure development is designed to manage and mitigate the risk to human life from bushfire.

3.21.3 Development Controls

- i. Development must conform to the requirements of the NSW Rural Fire Service's *Planning for Bushfire Protection* publication and Australian Standard AS3959 – Construction of buildings in bushfire-prone areas.

3.22 Road Noise Mitigation

3.22.1 Application

Applies to:	
Location/s:	All zones.
Development Type/s:	Roads and adjacent development.

3.22.2 Planning Objectives

- a. Design new roads and urban areas to minimise exposure of people to road traffic noise.
- b. Ensure development is consistent with the policy approach outlined in the NSW Road Noise Policy (RNP) as applicable to Ballina Shire conditions.
- c. Balance urban design, amenity and cost considerations in relation to road traffic noise impacts and associated noise management outcomes.
- d. Provide for the consideration of a variety of management responses to the mitigation of known or projected road traffic noise impacts.

3.22.3 Development Controls

A Assessment of Road Noise



- i. Road noise shall be assessed in accordance with the criteria in the NSW Road Noise Policy (RNP).



Note:

Assessment of road noise should consider the criteria in Appendix C of the NSW Road Noise Policy, which requires internal noise levels (L_{Aeq}) of 35 dB(A) for bedrooms during night periods (10pm to 7am) and 40 dB(A) for other habitable rooms.

B Application of Noise Assessment Criteria and Mitigation/Management

- i. Development applications must assess options for feasible and reasonable road traffic noise mitigation measures where known or projected road traffic noise levels exceed the criteria specified in the RNP.



Note:

Assessment of mitigation options under (i) should consider the principles of the NSW Road Noise Policy in the following priority order:

- i. Land use and development planning:
 - Consider the location and siting of urban subdivisions to minimise impacts from road traffic noise on sensitive receivers.
- ii. Road and transport planning:
 - Consider the separation between busy roads/transport corridors and sensitive receivers.
- iii. Noise source control:
 - Examine source control options including low noise road surfaces and lower speed limits.
- iv. Transmission path control:
 - Review options including acoustic barrier walls/mounds and acoustic treatment of buildings.

- ii. Road traffic noise mitigation measures assessed under (i) must be evaluated having regard for the following:
 - Effectiveness of proposed measures in reducing road traffic noise exposure to residential and other sensitive receivers.
 - Whole of life costs for construction, installation, ongoing maintenance and end of life replacement.
 - Subdivision layout and road design impacts.
 - Urban design, visual, aesthetic and scenic view impacts.
 - Connectivity of residential communities and permeability of residential urban areas.
 - Sustainability, shading, orientation and localised dwelling design impacts.
 - Safety and security impacts.
 - The ability of the market to adjust (discount) the price of land (to be purchased for future residences) by accounting for the costs of future road noise management at the individual lot/residence level.



- Equitable allocation of costs and benefits to stakeholders (developers, road authorities, existing residents and future residents) arising from road noise and road noise mitigation measures.

**Note:**

1. Allotments identified as requiring specific design or building construction standards due to road traffic noise shall have relevant restrictions on title applied. Restriction to title shall require certification by a suitably qualified acoustic consultant of compliance with internal noise levels in accordance with Appendix C of the Road Noise Policy (or contemporary guideline). Refer to AS 3671-1989 Acoustics – Road traffic noise intrusion – Building siting and construction for further guidance.
2. Specific provisions apply to the erection of acoustic barriers on individual properties in certain parts of Lennox Head within Chapter 4 (see Element K Fences and Walls).
3. Some individual subdivision consents contain conditions regarding specific road noise mitigation requirements/ measures that are to be implemented. Refer to the conditions of consent for the particular subdivision.

3.23 Waterway Structures

3.23.1 Application

Applies to:	
Location/s:	Land on and adjoining waterways in all zones
Development Type/s:	Construction of new (or alteration to existing) ramps, pontoons, jetties and associated retaining walls.

3.23.2 Planning Objectives

- a. Provide controls to ensure the management and use of waterfront land and land adjoining waterfront land is appropriately regulated;
- b. Balance amenity and equitable access to waterways for all properties fronting waterways;
- c. Ensure development enables waterway maintenance and/or dredging to be undertaken with minimal obstructions;
- d. Protect the waterfront environment and sea grass areas;
- e. Maintain suitable waterway widths for watercraft to safely manoeuvre; and
- f. Ensure structures on public land are designed to be safe and can withstand flood forces.

3.23.3 Development Controls

A Assessment of Structures



- i. Development applications for waterway structures (boat ramps, pontoons, jetties and retaining walls) shall be assessed by the waterway owner (Council or Crown) to ensure consistency with the relevant standards and drawings.



Note:

Council has typical design drawings for suitable waterway structures which can be found on Council's website.

- ii. Structures which potentially affect or disturb any sea grass beds may require referral to the NSW Department of Primary Industries (DPI) for their comment/concurrence. In these instances, the proposal is regarded as Integrated Development under the *Environmental Planning and Assessment Act 1979* as amended. An integrated referral attracts additional NSW Government referral and Council administration fees.
- iii. All structures within waterways require development consent and a Construction Certificate to be issued prior to the commencement of works.
- iv. Any Development Application for proposed structures within Crown waterways will require the Crown to sign the Development Application as the owner of the land and any Development Application for proposed structures within Council owned waterways will require the General Manager or other Council officer with appropriate delegations to sign the Development Application as the owner of the land.



Notes:

Information about licensing waterway structures with the Crown can be accessed on the NSW Department of Primary Industries website.

NSW Department of Trade & Investment – Crown Lands have issued the 'Domestic waterfront facility' policy to assist with these activities.

B Licensing for the Occupation of the Waterway

- i. All pontoons, jetties and boat ramps within waterways are to be licensed. The licensing agreement is between the owner of the structure and the owner of the land as indicated below:
 - a. Council owned waterways are Ballina Quays Canals, Banyanda Lake and Endeavour Lake.
 - b. Crown owned waterways are most other waterways on Crown land including the Pacific Ocean, Richmond River, North Creek and Emigrant Creek.
- ii. The licensing agreement for private structures within Council owned waterways is required to be entered into with Council prior to the issue of a Construction Certificate for the structure.



Notes:

The following documents can be accessed on Council's website:

- Private Structures within Council Owned (Public) Waterways Policy
- Fact Sheet – Private Structures within Council Owned (Public) Waterways
- Private Structures within Council Owned (Public) Waterways Application Form

Information about licensing waterway structures with the Crown can be accessed on the NSW Department of Primary Industries website.

C Boat Ramps

- Boat ramps are to be constructed in accordance with Council's standard boat ramp design. Where an alternative design is proposed, the design is to be prepared and certified by a practicing structural engineer as meeting the relevant engineering standards.

D pontoons and Jetties

- Pontoon and jetty structures located within the Ballina Quays and Banyanda Estate areas can have a maximum length of 18 metres as measured from the revetment wall/kerb line to the furthest edge of the pontoon.
- The first three metres of the pontoon structure is permitted to be a fixed structure with piles, whilst the remaining 15 metres must be floating from a demountable pivot point attached to the three metre fixed section of the pontoon.
- Bracing piles are permitted within the three metre zone as measured from the revetment wall/kerb line waterway side edge. No additional piling is permitted beyond this three metre zone.
- Structural engineer designed bracing/piling details for the pontoon, addressing any forces from waves, tides and flood waters are required to be submitted with the development application.
- Consideration must be given to the location of pontoons and neighbouring properties to ensure equitable access is maintained to the waterway within the prolongation of the side boundary of the property.

E Retaining Walls

- Retaining walls are to be constructed in accordance with Council's standard layout drawing. The design of the structure is to be prepared and certified by a practicing structural engineer as meeting the relevant engineering standards.





Appendix A: Site Waste Minimisation and Management Plan Templates

Form 1 - Waste Management Plan (All Developments)

Applicant Details	
Application No.	
Name	
Address	
Phone number(s)	
Email	
Project Details	
Address of development	
Existing buildings and other structures currently on the site	
Description of proposed development	
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, DECC or WorkCover NSW.	
Name	
Signature	
Date	
Name and telephone contact for principal person nominated for implementation of SWMMP (if different to above)	Name: Telephone Contact:





Form 2 - Demolition Phase (all types of development)

Address of development: _____

The outcome of reusing is most desirable, recycling is a little less, and disposal is the least desirable outcome.

Type of waste generated	Reuse	Recycling	Disposal	Specify method of onsite reuse, contractor and recycling outlet and/ or waste depot to be used
	Estimate Volume (m ³) or weight (t)	Estimate Volume (m ³) or weight (t)	Estimate Volume (m ³) or weight (t)	
Excavation Material	180m ³		20m ³	Topsoil for landscaping of site. Remainder tolandfill site bywaste contractor.
Timber (specify)	2m ³	2m ³		Chip for landscaping, sell for firewood. Remainder tolandscaping supplies.
Concrete		20m ³	30m ³	Existing driveway to remain during construction. On completion to landfill site bywaste contractor. Council to crush and reuse as a road aggregate.
Bricks/ pavers	90m ³		10m ³	Clean and reuse for footings and broken bricks for internal walls, or behind retaining wall. Concrete mortar bricks to Ballina Waste Management Facility to be crushed and used as road aggregate,
Tiles			40m ³	Taken to tip where it will be crushed and reused.
Metal (specify)		0.5m ³	0.5m ³	Some to metal recyclers. Remainder tolandfill.
Glass	0.5m ³	0.5m ³		Reused as glazing or aggregate for concrete production.
Furniture		1m ³	1m ³	Donate furniture that is still intact to..... Remainder to be taken tolandfill site by.....waste contractor.
Fixtures and fittings		2m ³	0.5m ³	Some tosecond hand building material supplier. Remainder tolandfill.
Floor coverings				



Type of waste generated	Reuse	Recycling	Disposal	Specify method of onsite reuse, contractor and recycling outlet and/ or waste depot to be used
	Estimate Volume (m ³) or weight (t)	Estimate Volume (m ³) or weight (t)	Estimate Volume (m ³) or weight (t)	
Packaging (used pallets, pallet wrap)				
Garden organics	30m ³	20m ³	10m ³	Separated some chipped and stored on site for landscaping. Remainder tolandscape supplies. Stumps and large trees tolandfill by....waste contractor.
Containers (cans, plastic, glass)				Recycle what possible, remainder tolandfill site.
Paper/ cardboard				Recycle what possible, remainder tolandfill site.
Residual waste			0.5m ³	Taken tolandfill site bywaste contractor.
Hazardous/ special waste e.g. asbestos (specify)				
Other (specify)				



Form 3 - Construction Phase (all types of development)

Address of development: _____

The outcome of reusing is most desirable, recycling is a little less, and disposal is the least desirable outcome.

	Reuse	Recycling	Disposal	
Type of waste generated	Estimate Volume (m ³) or weight (t)	Estimate Volume (m ³) or weight (t)	Estimate Volume (m ³) or weight (t)	Specify method of onsite reuse, contractor and recycling outlet and/ or waste depot to be used
Excavation Material	150m ³		50m ³	Topsoil for landscaping. Remainder to landfill site by waste contractor.
Timber (specify)	2m ³	1m ³		Chip for landscaping, sell for firewood, sell to second hand building material business or landscaping supplies.
Concrete	30m ³	20m ³		Existing driveway to remain during construction. On completion tolandfill site for crushing and reuse.
Bricks/ pavers	70m ³	30m ³		Clean and reuse for footings and broken bricks for internal walls. Concrete mortar bricks tolandfill site for crushing and reuse.
Tiles		3t		Crush and recycle atlandfill site.
Metal (specify)		0.5m ³	0.5m ³	Some to scrap metal recyclers. Remainder tolandfill site.
Glass				Reused as glazing or aggregate for concrete production.
Plasterboards (offcuts)		10m ³		Removal for recycling, return to supplier.
Fixtures and fittings		5m ³		Sell to second hand building material suppliers.
Floor coverings		15m ³		Underlay reprocessed for use in safety devices. Carpet used in landscaping.
Packaging (used pallets, pallet wrap)			2m ³	Taken tolandfill site.
Garden organics	2m ³			Mulched and composted.
Containers (cans, plastic, glass)				Recycle what possible, remainder tolandfill site.



	Reuse	Recycling	Disposal	
Type of waste generated	Estimate Volume (m ³) or weight (t)	Estimate Volume (m ³) or weight (t)	Estimate Volume (m ³) or weight (t)	Specify method of onsite reuse, contractor and recycling outlet and/ or waste depot to be used
Paper/ cardboard		0.5m ³		Recycle what possible, remainder tolandfill site..
Residual waste			0.5t	Taken tolandfill site bywaste contractor.
Hazardous/ special waste e.g. asbestos (specify)				



Form 4 - Ongoing Operation Phase (Multi Unit, Commercial, Mixed Use and Industrial)

Address of development: _____

Show the total volume of waste expected to be generated by the development and the associated waste storage requirements.

	Recyclables		Compostables	Residual Waste	Other
	Paper/ Cardboard	Metals/ plastics/ glass			
Amount Generated (L per unit per day)					
Amount generated (L per development per week)					
Any reduction due to compacting equipment					
Frequency of collections (per week)					
Number and size of storage bins required					
Floor area required for storage bins (m)					
Floor area required for manoeuvrability (m ²)					
Height required for manoeuvrability (m)					



Form 5 - Ongoing Operation Phase (Multi Unit, Commercial, Mixed Use and Industrial) Ongoing Management of Waste

Describe how you intend to ensure ongoing management of waste on site (eg, infrastructure, lease conditions, caretaker/ on site manager).

Note: Approaches for the management of waste on site should address the relevant matters specified in Appendix B.

1. The Company will prepare an environmental management system addressing office and retail waste and recycling. This will include expectations and achievable objectives for sorting and separating. Also, a regular waste audit.
2. An information package will be available to employees, which will be followed up every 12 months
3. The waste storage and recycling area will be suitably located and bins clearly labelled
4. A staff member (or cleaner) will be responsible for transferring materials to the area and keeping the area clean and tidy.

Based on the Blacktown Development Control Plan chapter on Site Waste Management and Minimisation 2006





Appendix B: Waste/Recycling Generation Rates

The figures in the following table of waste and recycling waste generation rates can be used in preparing the SWMMP, unless exact figures or more appropriate figures are known.

Premises type	Waste Generation	Recyclable Material Generation
Backpackers Hostel	40L/ occupant space/ week	20L/ occupant space/ week
Boarding House, Guest House	60L/ occupant space/ week	20L/ occupant space/ week
Butcher	80L/100m ² floor area/ day	Variable
Delicatessen	80L/100m ² floor area/ day	Variable
Fish Shop	80L/100m ² floor area/ day	Variable
Greengrocer	240L/ 100m ² floor area/ day	120L/ 100m ² floor area/ day
Restaurant, Café	10L/ 1.5m ² floor area/ day	2L/1.5m ² floor area/ day
Supermarket	240L/ 100m ² floor area/ day	240L/ 100m ² floor area/ day
Takeaway food shop	80L/ 100m ² floor area/ day	Variable
Hairdresser, Beauty Salon	60L/ 100m ² floor area/ week	Variable
Hotel, Licensed Club, Motel	5L/ bed space/ day 50L/ 100m ² bar area/ day 10L/ 1.5m ² dining area/ week	1L/ bed space/ day 50L/ 100m ² bar area/ day 50L/ 100m ² Dining area/ day
Offices	10L/ 100m ² floor area/ day	10L/ 100m ² floor area/ day
Shop less than 100m ² floor area	50L/ 100m ² floor area/ day	25L/ 100m ² floor area/ day
Shop greater than 100m ² floor area	50L/ 100m ² floor area/ day	50L/ 100m ² floor area/ day
Showroom	40L/ 100m ² floor area/ day	10L/100m ² floor area/ day
Multi unit dwellings	80L/ unit/ week	40L/ unit/ week

Source: Adapted from Waverley Council Code for the Storage and Handling of Waste.



Appendix C: Checklist of Considerations when Developing a Mosquito Impact Assessment for Proposed Developments

Consideration	Notes
1. Type of development	<ul style="list-style-type: none"> • Does the development hold potential for bringing the community (including residents, visitors, workers) into greater contact with mosquitoes? • Does the development's intended purpose expose relatively vulnerable individuals to mosquitoes? For example, seniors housing (aged care facilities), child care centres, and respite day care centres. • Is the development likely to expose individuals to high mosquito risk where previous awareness of the health risks associated with mosquitoes, and adequate personal protection measures, may not exist? For example, tourist and visitor accommodation. • Does the proposed development include any stormwater treatment devices or other water features? For example, elements of water sensitive urban design or green infrastructure.
2. Location of proposed development	<ul style="list-style-type: none"> • Is the proposed development within the "Coastal Plains and Lowlands" or "High Mosquito Risk Area" as identified in the Ballina Shire Council Mosquito Management Map? • Is the proposed development within the "Elevated Lands" as identified in the Ballina Shire Council Mosquito Management Map confirmed not to be in close proximity to any known or potentially productive mosquito habitats? If in close proximity, mosquito impact assessment is required.
3. Local mosquito habitats and mosquito populations	<ul style="list-style-type: none"> • Are there known or suspected estuarine mosquito habitats (e.g. saltmarsh, mangroves) located in close proximity (approximately 1km) of the proposed development? • Are there known or suspected brackish-water mosquito habitats (e.g. coastal swamp forest, she-oak woodland) located in close proximity (approximately 100m) of the proposed development? • Are there known or suspected nuisance mosquito habitats (e.g. waterbodies) within the footprint of the proposed development? • Is there any available information on the abundance and diversity of mosquitoes found within the proposed development or habitats within close proximity (approximately 1km)? • Are there known abundant nuisance mosquito populations reported from within the proposed development as identified through Council records (i.e. resident complaints of nuisance mosquitoes or mosquito population data collected through trapping programs or projects)?



4. Local mosquito population investigations	<ul style="list-style-type: none"> • Has there been specific mosquito habitats and mosquito population sampling undertaken in the preparation of a mosquito risk assessment? Has trapping been carried out between April and November? • Has appropriate reference been made to existing mosquito and mosquito-borne disease data provided by Ballina Shire Council and/or the NSW Health Arbovirus Surveillance and Mosquito Monitoring Program?
5. Nuisance and public health risks	<ul style="list-style-type: none"> • Are there records of complaints to Ballina Shire Council prompted by nuisance-biting associated with mosquitoes within the proposed development area or those in moderate proximity (approximately 3km)? • Is a mosquito awareness and avoidance program needed to minimise mosquito risks?
6. Changes to local mosquito habitats during and/or following development	<ul style="list-style-type: none"> • Are there known or suspected mosquito habitats within the footprint of the proposed development that will be removed, retained, or rehabilitated? • Does the proposed development include any stormwater treatment devices or other water features? • Are any stormwater treatment devices or other water features designed to retain water for more than 48 hours (e.g. gross pollutant traps, constructed wetlands, rainwater tanks) and have they been designed and assessed by a suitably qualified and experienced professional? • Is there expected to be substantial areas of terrestrial vegetation retained or revegetated within the footprint of the proposed development? • Has local mosquito risk been clearly identified in relevant plans of management for the proposed development? For example, terrestrial and aquatic vegetation, stormwater treatment devices and other water features • Has the impact of the proposed development on the suitability and productivity of surrounding habitats for mosquitoes been satisfactorily assessed? For example, do stormwater discharge points, surface flows, or other changes to local hydrology enhance conditions for the production of nuisance mosquitoes in surrounding habitats?
7. Proposed development layout and building design	<ul style="list-style-type: none"> • Does the layout of the proposed development allow for a “mosquito hazard reduction” buffer zone of at least 100m and containing sparse and low growing vegetation between residential allotments and known or suspected productive brackish-water mosquito habitats (e.g. coastal swamp forest, she-oak woodland)? • Is the “mosquito hazard reduction” buffer zone clearly indicated on the final plan of management for the proposed development, clearly differentiating this zone from other environmental protection and asset protection zones? • Does the building/dwelling design incorporate the appropriate requirements regarding provision of insect screens fitted to windows, doors and outdoor areas such as balconies, covered areas and other structures suitable for screening? Have other options, such as self-closing doors in high traffic areas of non-residential developments been investigated? • Are suitably screened outdoor areas provided for high risk development types?



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	<ul style="list-style-type: none">• Has the exposure to mosquitoes been considered in the design and location of playgrounds and other recreational facilities such as exercise equipment and picnic areas?
8. Reporting requirements	<ul style="list-style-type: none">• Has a formal “mosquito impact assessment” report been produced for the proposed development by a suitably qualified entomologist?• Have all aspects of the proposed development and surrounding habitats been assessed with reference to current and future risks associated with nuisance and public health concerns of local mosquitoes?• Have all relevant plans (e.g. stormwater management plan, vegetation management plan) been cross checked and referenced in the final “mosquito impact assessment” report submitted with development application to Council?• Have any relevant documents supporting assessments and/or recommendations (e.g. justification of mosquito surveillance strategies, proposed mosquito impact mitigation strategies) within the “mosquito impact assessment”, especially those not readily available, been included as appendices?



Appendix D: Checklist for Mosquito Impact Assessment Report for Proposed Developments

Mosquito Impact Assessment Report Component	Page no.
Property details, address, and description	
Description and location of proposed development relative to Mosquito Management Map and designated “Coastal Plains and Lowlands”, “Elevated Lands”, and/or “High Risk” mosquito zones.	
Existing mosquito populations and impacts	
Reference to known and suspected sources of nuisance mosquitoes (e.g. estuarine wetlands, coastal swamp forest, sedgeland, freshwater wetlands).	
Reference to mosquito population data available from Ballina Shire Council (e.g. NSW Arbovirus Surveillance and Mosquito Monitoring Program).	
Reference to documented nuisance-biting reports from within or adjacent to development.	
Assessment of actual and potential public health risks (e.g. human disease notification data; detections of mosquito-borne pathogens; abundance of known vector mosquitoes).	
Mosquito population investigation	
Provide details of mosquito survey methodology (e.g. number, type, and location of mosquito traps operated, dates of trapping, inclusion of reference locations).	
Presentation of mosquito data according to trap location and date..	
Reference to climatic/environmental factors influencing mosquito populations during survey period/s	
If not site-specific mosquito sampling undertake, justification provided as to why.	
Stormwater management	
Reference to latest stormwater management plan and identification of proposed water bodies or other infrastructure relevant to mosquito risk.	
Reference to plans of specific water bodies (e.g. wetlands, bioretention swales, drains) including depth, bank slope, and anticipated retention times of water following rainfall.	
Reference to planting guides (aquatic and terrestrial) associated with proposed wetlands and waterbodies (e.g. plant species, planting densities).	
Reference to proposed maintenance schedules and inspections including mosquito surveys.	
Vegetation management	
Reference to latest vegetation plan of management including layout of new and retained vegetation zones (e.g. location, plant species, planting densities).	
Reference to specific asset protection zones (including proposed “mosquito buffers”) and proposed vegetation contained within. Any “mosquito buffer” should be specifically marked on site plan for proposed development with clear differentiation between areas	





Mosquito Impact Assessment Report Component	Page no.
designated as a mosquito buffer and those allocated to other asset or environmental protection zones.	
Reference to proposed maintenance schedules.	
Building design	
Reference to latest building and residential allotment design with reference to vegetation plantings, screening of openings, covered areas and rainwater tank.	
Mosquito awareness and avoidance program	
Proposed mosquito awareness and avoidance program with site specific information on nuisance mosquito risk and strategies to reduce mosquito contact.	
Proposed communication of mosquito awareness and avoidance information (e.g. 88b instrument, strata plan, body corporate by-laws, email, social media, letterbox drop, posters).	
Mosquito consultant qualifications	
Details of professional experience with mosquito management (e.g. preparation of previous mosquito impact assessment reports, membership of the Mosquito Control Association of Australia, evidence of formal mosquito management training).	