



LANDPARTNERS
built environment consultants

LandPartners Limited
2A Carrington Street
Lismore NSW 2480
PO Box 1134 Lismore NSW 2480
T: 02 6627 5600 F: 02 6621 7664
E: Lismore@landpartners.com.au

Land Use Conflict Risk Assessment

in support of a **State Significant Site study** for the

West Byron urban land release area

on behalf of
Byron Bay West Landowners Association

20 December 2010

Steven Smith
Senior Planner
LandPartners





DISCLAIMER

This report has been prepared for the use of the stated client and for the specific purpose described in the Introduction and is not to be used for any other purpose or by any other person or corporation. LandPartners Limited accepts no responsibility for any loss or damage suffered howsoever arising to any person or corporation who may use or rely on this report in contravention of the terms of this disclaimer.

Due consideration has been given to site conditions and to appropriate legislation and documentation available at the time of preparation of the report. As these elements are liable to change over time, the report should be considered current at the time of preparation only.

The report relies on information supplied by the client and on findings obtained using accepted survey and assessment methodology. Specific survey methodology is described in the relevant section of the report.

While due care was taken during field survey and report preparation, LandPartners accepts no responsibility for any omissions that may have occurred due to the nature of the survey methodology.

Conclusions to the report are professional opinions and LandPartners cannot guarantee acceptance or consent of the relevant determining/consent authorities. Subsequent requests for further work or information will be subject to additional fees.

TABLE OF CONTENTS

1. INTRODUCTION AND BACKGROUND	3
2. INFORMATION GATHERING (STEP 1)	4
2.1 SITE LOCATION, AREA AND ZONING	4
2.2 SITE HISTORY AND LAND USE.....	4
2.3 SURROUNDING LAND USE	7
2.5 LANDUSE SUMMARY AND PROPOSED ACTIVITIES	10
3. RISK LEVEL EVALUATION (STEP 2).....	15
3.1 LUCRA MATRIX.....	15
3.2 RISK EVALUATION.....	16
4. RISK MITIGATION MANAGEMENT STRATEGIES (STEP 3)	18
4.1 BUFFERS	18
4.2 LAND USE AND BUILT FORM CONTROL.....	19
4.3 URBAN DESIGN.....	19
4.4 TRAFFIC CALMING.....	19
4.5 PUBLIC EDUCATION	20
4.6 MITIGATED RISK RATINGS.....	20
5. RESULTS (STEP 4).....	23
REFERENCES.....	24
Figure 1 Study area	
Figure 2 Zones	
Figure 3 Locality/Context	
Figure 4 Proposed zones	

1. Introduction and Background

LandPartners has been commissioned by the Byron Bay West Landowners Association to prepare a Land Use Conflict Risk Assessment (LUCRA) as part of a State Significant Site study for the West Byron urban land release area.

This LUCRA is based on the “Living and Working in Rural Areas” handbook (‘the Handbook’) (Learmonth et al. 2007). It is one of several documents that identify and address potential land use conflicts, and should be read in conjunction with more specific assessments by:

- PAEHolmes (air quality)
- TTM (traffic noise)
- Peter Parker (marine ecology)
- Australian Wetlands (flora and fauna)
- LandPartners (flora and fauna and bushfire hazard)
- Ennismorefield (visual impact)

In general terms the purpose of the LUCRA is to identify landuse compatibility and potential conflict between neighbouring landuses, and the identification of conflict avoidance or mitigation measures. LUCRA aims to:

- *Objectively assess the effect and level of proposed land use on neighbouring land uses;*
- *Accurately identify the risk of conflict between neighbouring land uses;*
- *Complement development control and buffer requirements with an understanding of likely land use conflict;*
- *Proactively address land use issues and risks before a new land use proceeds or before a dispute arises; and*
- *Highlight or recommend strategies to help minimise conflict and contribute to the negotiation, proposal, implementation and evaluation of separation strategies.*

In order to achieve those aims, a four-step assessment process is undertaken:

1. **Information Gathering** – The site’s geophysical characteristics, the nature of the development proposed and the surrounding landuses are described.
2. **Risk Level Evaluation** – Each proposed activity is recorded and potential landuse conflict level is assessed. The higher the risk level, the more mitigation it will require.
3. **Identification of Risk Mitigation Strategies** – Management strategies are identified which can assist in lowering the risk of potential conflict.
4. **Record Results** – Key Issues, risk level and recommended management strategies are recorded and summarised.

2. Information Gathering (Step 1)

2.1 Site location, area and zoning

The West Byron urban land release area is located approximately 2.5km west of Byron Bay and has an area of approximately 108 hectares – see Figure 1.

The entire site is zoned 1(d) Investigation Zone under the Byron Local Environmental Plan 1988 – see Figure 2.

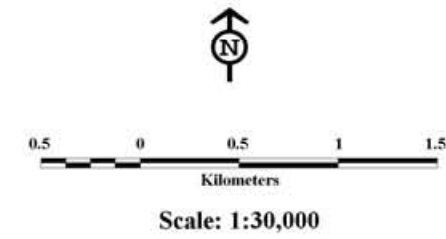
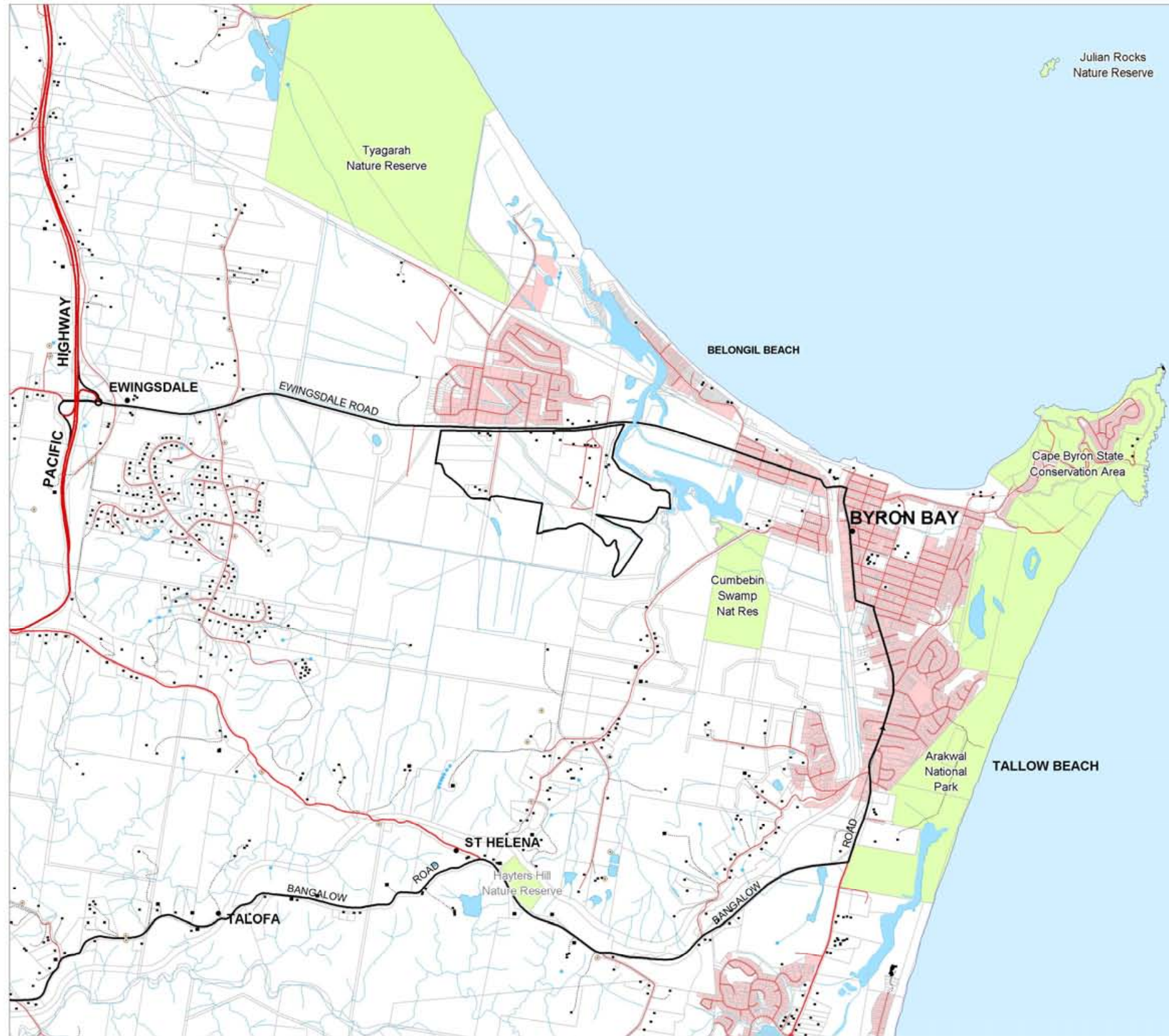
2.2 Site History and Land Use

The site comprises several adjoining properties, each of which has its own history.

- “Belongil Fields” caravan park and festival venue is centrally located in the site. This site has a history of generally impermanent tourism uses.
- A small property fronting Ewingsdale Road next to Belongil Fields contains a confectionery factory. The manufacturing operation applies chocolate coating to local macadamia nuts using domestic scale machinery. The operation is confined within existing buildings on the site and does not generate noticeable noise.
- A small and sporadic timber manufacturing operation is conducted on land at the east of the site. This was once the site of the “Box King” retail timber box manufacturing operation, but the scale of activity is now substantially reduced.
- There are some small residential lots at the west of the site, two of which front Ewingsdale Road, and two of which are near the southwest boundary of the site. The two southwestern properties provide a tourist facility (“Planula” bed and breakfast) and cultural activities (“Temple Byron”).

Currently there are no activities occurring in West Byron that generate the potential for conflict with land uses outside the site.

Figure 1 Locality



 Proposed study area

Date: 16 October 2007

Client: Crighton Properties
Project: BA060151, Ewingsdale Rd, Byron Bay

LOCALITY PLAN

File: BA060151_PL3A Drawn: DA Appd: SS

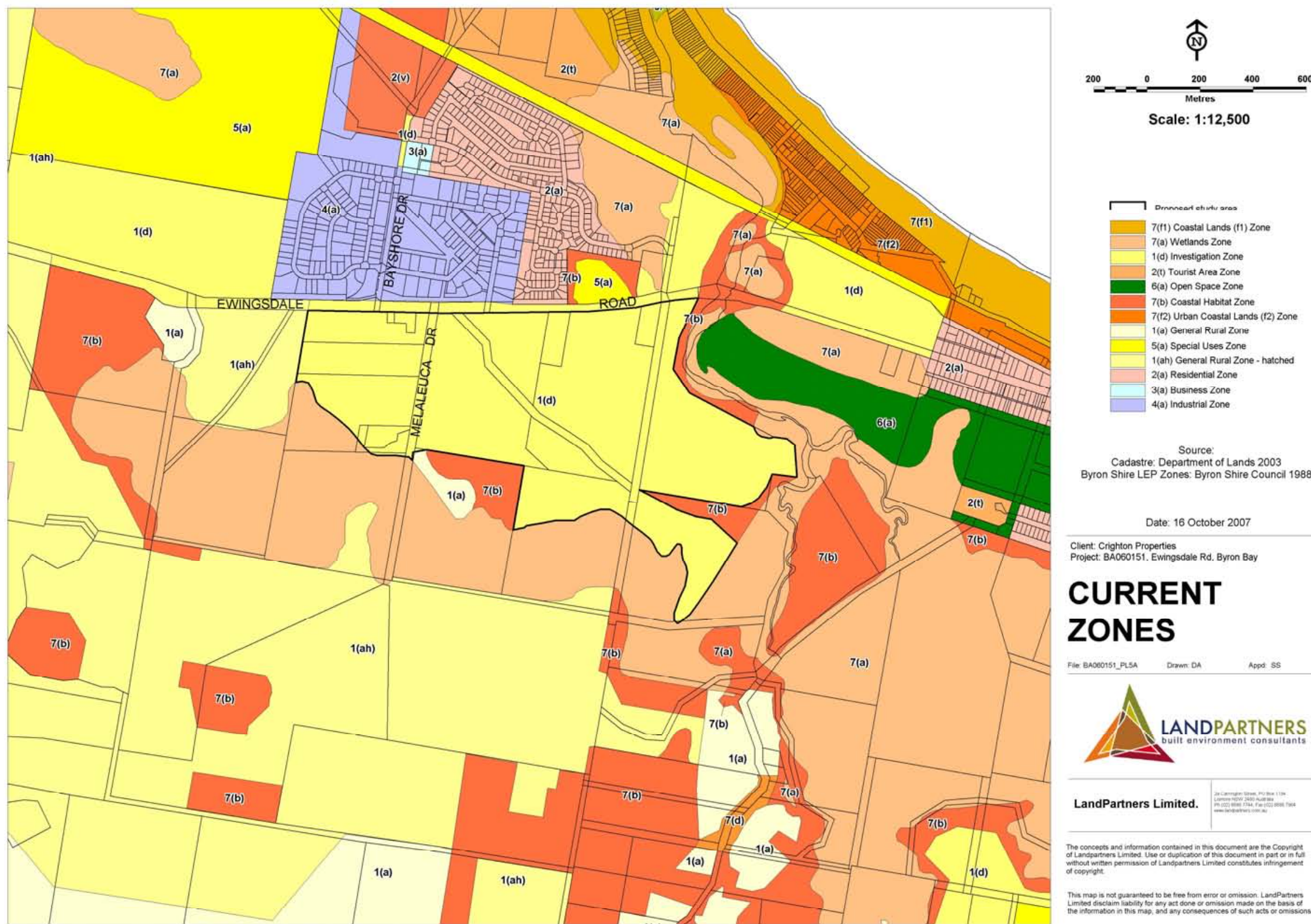


LandPartners Limited.
24 Carrington Street, PO Box 1194
Lismore NSW 2480 Australia
Ph (02) 6626 1744 Fax (02) 6626 1744
www.landpartners.com.au

The concepts and information contained in this document are the Copyright of LandPartners Limited. Use or duplication of this document in part or in full without written permission of LandPartners Limited constitutes infringement of copyright.

This map is not guaranteed to be free from error or omission. LandPartners Limited disclaim liability for any act done or omission made on the basis of the information in this map, and any consequences of such acts or omissions.

Figure 2 The subject site & zoning



2.3 Surrounding Land Use

Existing land uses in the locality within about 1km of the site are illustrated on Figure 3. They include:

Residential:

- Sunrise Beach residential area (to the north)
- Belongil Beach residential area (northeast)
- Shirley Street residential area (east)

Tourism:

- Cape Byron Van Village caravan park (northeast)
- North Beach development site (historical and approved tourism uses, but currently dormant) (north)
- Arts Factory Lodge (southeast)

Conservation:

- Wetlands covered by SEPP 14 and zoned 7(a) Wetlands under Byron LEP 1988 (south)
- Native vegetation zoned 7(b) Coastal Habitat (east)
- Cape Byron Marine Park over Belongil Creek (east)
- Tyagarah Nature Reserve (northwest)
- Cumbebin Nature Reserve (southeast)

Note: There are no areas designated as World Heritage Property, National Heritage Place, Wetland of International Significance, Commonwealth Marine Area or Commonwealth Heritage Place considered a Matter of National Significance under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) within 5km of the site.

Industrial and light industrial:

- Arts & Industry Estate (north)

Education:

- School of Audio Engineering (north)

Active open space:

- Byron Bay Regional Sports and Cultural Centre (under construction) (northwest)

Abattoir:

- Sunnybrand Chickens poultry processing plant (west)

Cultural/mixed use:

- Island Quarry (west)

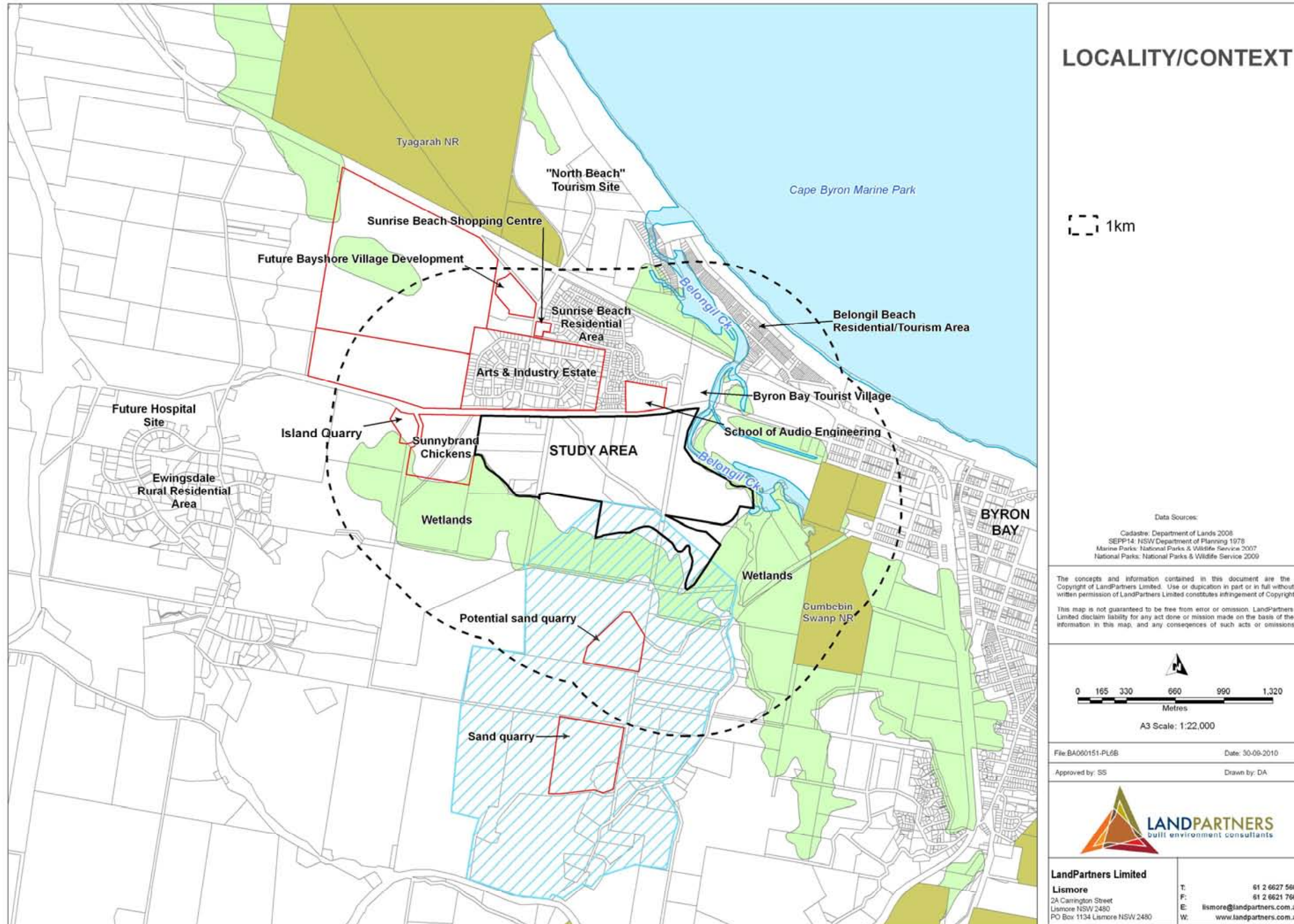
Rural:

- grazing at Skinners Shoot (south) and on the flats at Ewingsdale (west)

Extractive industries:

- sand quarry at Skinners Shoot (south). There is also an unutilised potential sand resource in that area, which is yet to be granted consent for extraction.

Figure 3 Locality/context



2.5 Landuse Summary and Proposed Activities

The nature of the precinct where the land use change & development is proposed:

West Byron adjoins an existing urbanised area and areas of wetlands. Properties within the site have been owned, managed and developed with a view to investigation for urban purposes for more than 20 years. The majority of the West Byron precinct is currently in a rural state with some residential and tourism activity.

Topography, climate & natural features:

The site is located on a sandy coastal plain and is generally flat. At the edge of the study area there are very slight slopes with one to two metres fall to low lying floodprone areas at the south and east of the site. These adjoining areas contain wetlands and other coastal vegetation.

A major drainage channel flows through the site, from the industrial estate to Belongil Creek.

The climate is typical of subtropical northern NSW, with warm summers and mild winters.

The nature of the land use change & development proposed:

It is proposed to develop the West Byron site for urban purposes including:

- residential uses in the core of the land release area
- light industrial development and mixed use live/work at the west
- a neighbourhood node including local shops and active open space in the centre
- conservation
- associated infrastructure

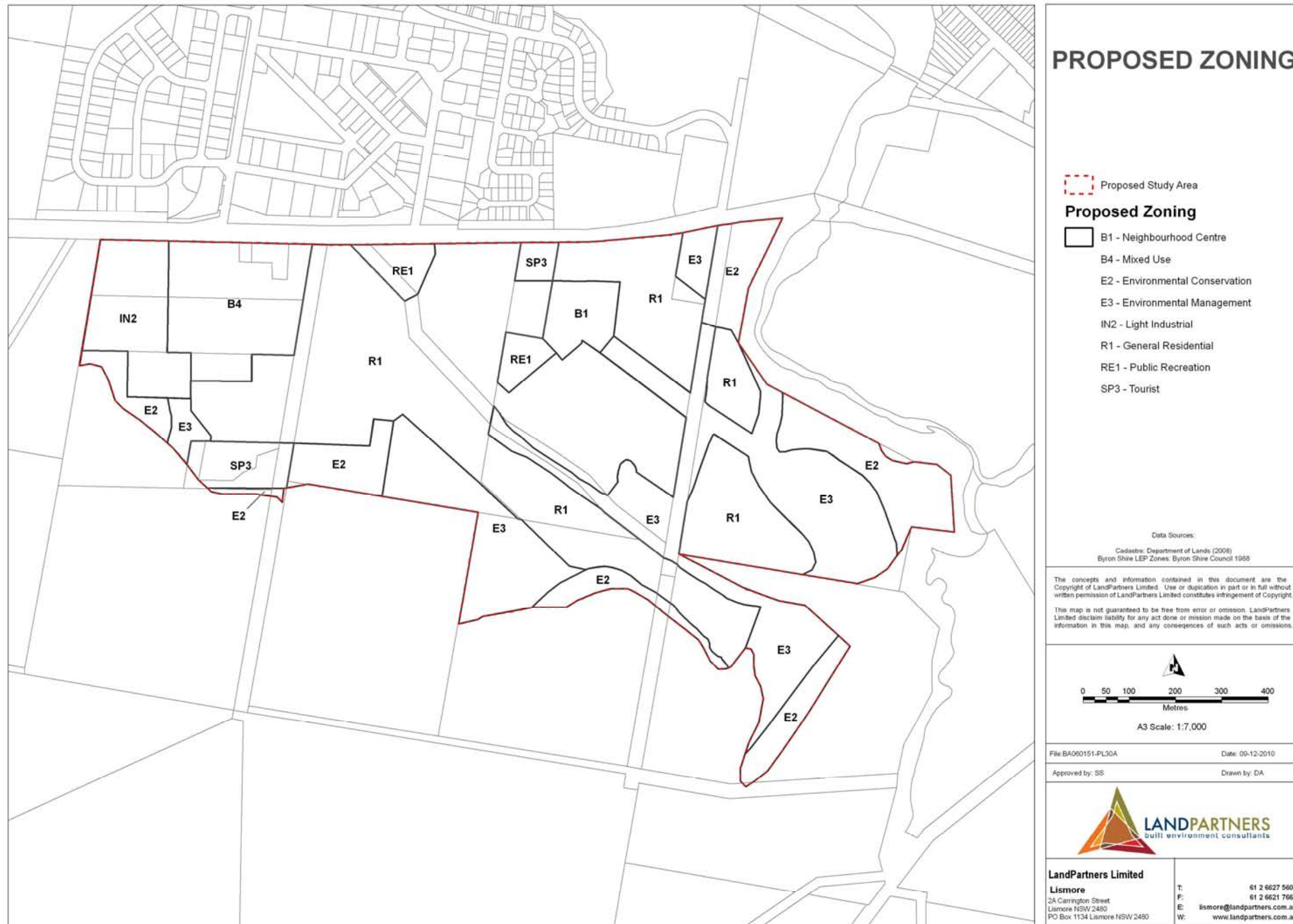
The proposed zones for the site are shown in Figure 4.

The main activities of the proposed land use:

Urban development of the site can be expected to result in a range of physical works, human activities and environmental interactions including:

- Construction of roads, infrastructures and buildings
- Removal of some vegetation
- Earthworks

Figure 4 Proposed zones



- Residential living
- Home-based businesses
- Light industrial development
- Vehicle traffic
- Pedestrian and cycle traffic
- Stormwater treatment and disposal
- Conservation areas
- Open space areas and activities
- Companion animal ownership

Compare & contrast proposed and adjoining land uses for incompatibility:

In the absence of any mitigating measures or adaptations, residential development at West Byron may be incompatible with several surrounding landuses, activities or environments:

Sunnybrand Chickens:

Odour from Sunnybrand Chickens plant was the cause of complaint from nearby residents for some years. The site operators identified the odour sources and took actions to significantly reduce the problem. Refer to the PAEHolmes report for a detailed assessment and recommended mitigation measures.

The Sunnybrand plant also generates noise from air conditioning plant and other industrial activity. Noise levels may be intrusive to residential living. Refer to the TTM report for a detailed assessment and recommended mitigation measures.

Ewingsdale Road traffic noise:

The speed environment and volume of traffic on Ewingsdale Road is a source of noise which may adversely impact on residential amenity. The speed environment (and speed limit) is likely to be reduced, although the volume of traffic may increase in the long term. Refer to the TTM report for a detailed assessment and recommended mitigation measures.

Fibreglass manufacturing:

There are fibreglass surfboard manufacturing operations in the Arts and Industry Estate. Odour and fumes from fibreglass can be problematic but, given the distances involved and the small scale of operations. Refer to the PAE Holmes report for a detailed assessment.

Visual impact:

New residential development at West Byron will be visible from Ewingsdale Road if there are no intervening landscape treatments. Refer to the Ennismorefield report for a detailed assessment and recommended mitigation measures.

Ecological impacts of development:

In the absence of any development design or management measures, urban development may have adverse impacts on environmentally sensitive areas such as nearby wetlands and Belongil Creek (Cape Byron Marine Park). Adverse environmental impacts can include habitat removal, 'privatisation' and over-zealous maintenance of public land, discarding of weeds on public land, predation by companion animals on native fauna etc.

Refer to reports by Parker and LandPartners for detailed assessments and recommended mitigation measures.

Bushfire hazard:

The West Byron area contains, and is adjacent to, vegetation which is classified as a potential bushfire hazard. Residential development must be located and designed in accordance with principles articulated in the State government guideline "Planning for Bushfire Protection". Refer to the LandPartners bushfire report for detailed assessment and mitigation measures.

Sand quarries at Skinners Shoot:

The Department of Industry and Investment (Mineral Resources) has advised of an existing sand quarry and a potential future sand quarry at Skinners Shoot, south of the subject site.

The Department of Mineral Resources has advised that a Land Use Conflict Risk Assessment should consider the potential for noise, dust and vibration impacts on urban development within the buffer, and visual amenity.

It is understood that the existing quarry is nearing the end of its available resource. The potential resource site does not yet have consent for extraction.

These resources and associated buffers are subject to a Ministerial s117 local planning direction and are indicated on the following figure (the existing quarry is the southern-most of the two red areas):

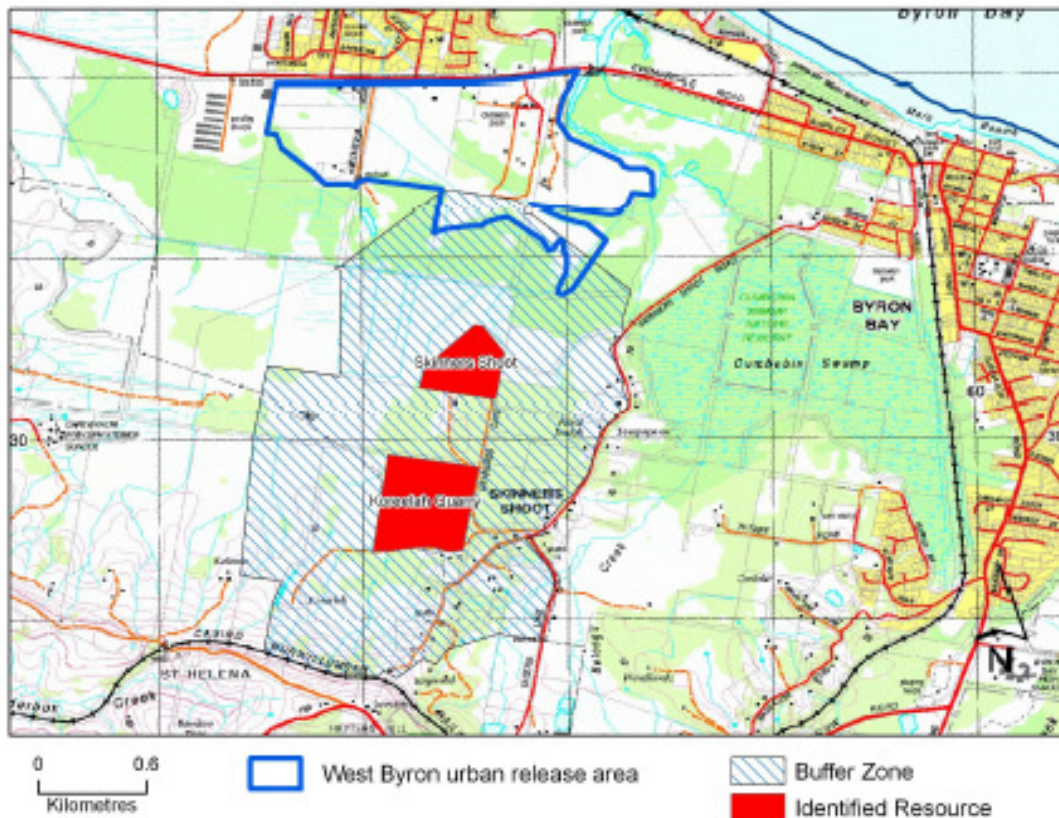


Figure 1. Map of the area about the proposed urban land release, showing the relationship between the land release area, major construction sand resources and their Section 117 notification areas.

The next section of this report provides an evaluation of risk levels.

3. Risk Level Evaluation (Step 2)

3.1 LUCRA matrix

The LUCRA process uses a “probability and consequence” matrix to estimate the potential for land use conflict. This is the LUCRA table in its raw form (Table 10 in the *Living and Working in Rural Areas handbook*):

Table 10: Land use conflict risk assessment matrix

Likely consequence from a dispute or conflict arising over the land use or activity	Likelihood of a dispute or conflict arising over the land use or activity.		
	Very likely	Likely	Unlikely
Major consequences & impacts likely	HIGH	HIGH	MEDIUM
Modest or periodic consequences & impacts likely	HIGH	MEDIUM	LOW
Minimal consequences & impacts likely	MEDIUM	LOW	LOW

Risk Ranking

The consequences of a development on the environment, public health and amenity are assessed according to this table:

Table: Measure of Consequence (Severity of Environmental Impact)

Level	Descriptor	Description
1	Major	<ul style="list-style-type: none"> • Serious and/or long-term impact to the environment/public health and/or amenity • Long-term management implications
2	Moderate	<ul style="list-style-type: none"> • Moderate and/or medium-term impact to the environment/public health and/or amenity • Some ongoing management implications
3	Negligible	<ul style="list-style-type: none"> • Very minor impact to the environment/public health and/or amenity • Can be effectively managed as part of normal operations

The probability of occurrence is assessed according to this table:

Table: Probability (Measure of Likelihood of Risk)

Level	Descriptor	Description
A	Very Likely	Common or repeating occurrence
B	Likely	Known to occur, or it has occurred
C	Unlikely	Could occur in some circumstances, but not likely to occur

The result is a risk rating matrix:

	Probability		
Consequence	Very likely	Likely	Unlikely
Major	High	High	Medium
Moderate	High	Medium	Low
Negligible	Medium	Low	Low

Ranking is given before and after ameliorating measures are applied to mitigate the given activity impacts. Higher 'before' risk levels require greater attention to avoidance or mitigation measures in order to reduce the risk level.

3.2 Risk evaluation

This section is arranged as a schedule, each section addressing a potential land use conflict source in terms of:

- **Source** of potential land use conflict
- **Existing Risk** – what potential risks exist, without any mitigating measures at all
- **Risk Rating** – what is the risk level, as per the land use conflict risk assessment matrix
- **Mitigation measures** – what can be done to reduce risks of land use conflict
- **Controlled Rating** – what is the risk level likely to be with mitigation measures in place

Source 1:	Odour from Sunnybrand Chickens
Potential risk:	Occasional generation of unpleasant odours may impact on future residential development
Risk rating:	Medium

Source 2:	Noise from Sunnybrand Chickens
Potential risk:	Impact on future residential amenity from industrial air conditioning plant
Risk rating:	Medium
Source 3:	Fibreglass (surfboard) manufacturing in the Arts and Industry Estate
Potential risk:	Impact on future residential amenity from odour and fumes
Risk rating:	Low
Source 4:	Ewingsdale Road traffic noise
Potential risk:	Impact on future residential amenity from traffic noise
Risk rating:	High
Source 5:	Visual impact of future residential development
Potential risk:	Visual impact of development when viewed from Ewingsdale Road
Risk rating:	High
Source 6:	Environmental interface of residential development
Potential risk:	Pressure on environmental assets e.g. garden weeds spreading to bushland; rubbish dumping
Risk rating:	High
Source 7:	Companion animals
Potential risk:	Dogs & cats – predation on native fauna
Risk rating:	High
Source 8:	Urban water quality
Potential risk:	Increased nutrient run-off to sensitive receiving environments
Risk rating:	Medium
Source 9:	Skidders Shoot sand quarries
Potential risk:	Noise, dust, visual amenity (viewed from residential premises), vibration. The existing sand quarry is a low key operation that does not involve blasting and has only occasional heavy machinery operation. The other resource site is not yet operational.
Risk rating:	Low

Strategies to mitigate these risk ratings are addressed in the next section.

4. Risk Mitigation Management Strategies (Step 3)

4.1 Buffers

Buffers are discussed in the Handbook (Learmonth et al. 2007). Buffers can be broadly categorised as follows:

- Separation distance buffers
- Biological and vegetated buffers
- Landscape and ecological buffers
- Property management buffers

There are permutations and combinations of these buffer types. For example:

- Air quality can be modified by a combination of separation distances, vegetated buffers and property management
- Acoustic impact can be modified by separate distances, physical barriers or landscape works, and the sensitivity of the land use (e.g. residential, industrial).

Each of these buffer types has application to West Byron.

- **Separation distance buffers** and **landscape buffers** between residential development areas and:
 - sensitive vegetation, particularly at the south and east of the site.
 - sand quarries at Skinners Shoot. The distance between the two is approximately 800 metres to the nearest point.
 - mosquito hazard
- **Asset protection zones** to create a buffer between bushfire hazard areas and residential development.
- A variety of **landscape buffers and property management** to mitigate visual impact of residential development when viewed from Ewingsdale Road.
- **Vegetated buffers** between residential development and:
 - Sand quarries at Skinners Shoot. The proposed residential development area is separated from the sand quarry areas by several hundred metres of SEPP 14 wetlands which are likely to remain in situ in perpetuity. This is an adequate buffer in view of the low-key operational characteristics of extraction operations.

4.2 Land use and built form control

- **Non-residential land use zones** between residential development and Sunnybrand Chickens.
- **Non-residential building components** (e.g. home-based businesses) as a sound buffer to Ewingsdale Road. Light industrial development, home offices and home businesses.
- **Building construction** as required by the Building Code of Australia for bushfire hazard.
- **Building treatments** to minimise mosquito hazard e.g. screened areas.

Zoning will be addressed in the SSS process. Other development and building controls will be addressed in a future master plan and development controls for the site.

4.3 Urban design

- **Perimeter roads.** These are a solution to many issues including definition of the urban footprint, protection against bushfire, access for bushfire control, access for Landcare activities, minimisation of encroachments by adjoining owners, and public appreciation of the environment particularly for walking and cycling.
- **Permeable urban layout** to allow wildlife movement (e.g. avoidance of culs-de-sac).

These aspects of urban design are not a function of the SSS zoning. Rather, they will be incorporated in future master planning as required by legislation and planning guidelines.

4.4 Traffic calming

- **Traffic calming** strategies including street design and street lighting to encourage slow-speed traffic environment in neighbourhood streets and reduce vehicle hazards to wildlife.

This will be addressed in master planning and civil engineering design.

4.5 Public education

- **Education** of new residents regarding nutrient loads (in relation to gardening activities) and responsible companion animal ownership.

This requires a multi-party approach including the eventual developers, Council and community groups.

These mitigating measures have been incorporated into the preferred option for land use zones and in the preliminary DCP, and should be incorporated in future master planning and development design.

4.6 Mitigated risk ratings

Source 1:	Odour from Sunnybrand Chickens
Existing Risk:	Occasional generation of unpleasant odours may impact on future residential development
Risk Rating:	Medium
Mitigation measures:	<ul style="list-style-type: none">○ Separation distances between odour sources and residential areas, based on site-specific modelling by air quality consultants○ Less sensitive (non-residential) land uses in areas closer to the potential odour source○ Revegetated green belt buffer between Sunnybrand and development○ Improvement of Sunnybrand site conditions
Controlled Rating:	Low
Source 2:	Noise from Sunnybrand Chickens
Existing Risk:	Impact on future residential amenity from industrial air conditioning plant
Risk Rating:	Medium
Mitigation measures:	<ul style="list-style-type: none">○ separation distance between noise sources and residential areas○ physical barriers between noise sources and residential areas○ using the built form of non-residential land uses as a physical barrier
Controlled Rating:	Low

Source 3:	Fibreglass (surfboard) manufacturing in the Arts and Industry Estate
Existing Risk:	Impact on future residential amenity from odour and fumes
Risk Rating:	Low
Mitigation measures:	None required
Controlled Rating:	Low
Source 4:	Ewingsdale Road traffic noise
Existing Risk:	Impact on future residential amenity from traffic noise
Risk Rating:	High
Mitigation measures:	<ul style="list-style-type: none">○ Separation distance○ Sound mitigation structure/s○ Non-residential land uses in exposed areas○ Use non-residential building mass to mitigate traffic noise
Controlled Rating:	Low
Source 5:	Visual impact of future residential development
Existing level of risk:	Visual impact of development when viewed from Ewingsdale Road
Risk Rating:	High
Mitigation measures:	<ul style="list-style-type: none">○ Mixture of treatments rather than one homogenous treatment○ Vegetated buffer○ Urban design principles○ Building design rules
Controlled Rating:	Low
Source 6:	Environmental interface of residential development
Existing Risk:	Pressure on environmental assets e.g. garden weeds spreading to bushland; rubbish dumping
Risk Rating:	High
Mitigation measures:	<ul style="list-style-type: none">○ Separation distances, including bushfire Asset Protection Zones and perimeter roads, between development and environmentally sensitive areas○ Environmentally sensitive areas separated from residential development by public thoroughfares – roads, streets, lanes, footpaths○ Public education for future residents○ Revegetated buffers to Belongil Creek (Cape Byron Marine Park)○ Controlled pedestrian access (walkways) to Belongil Creek○ Water sensitive urban design, effective water quality control prior to discharge into sensitive receiving environments

Controlled Rating: Low

- Community title management of ownership of dogs & cats in the most sensitive areas
- Responsible companion animals ownership (in accordance with the *Companion Animals Act 1998*)

Source 7: **Companion animals**
Existing/potential risk/s: Dogs & cats – predation on native fauna
Risk Rating: High
Mitigation measures:

- Separation distances
- Public education for future residents about local environmental sensitivities
- Public areas and thoroughfares between private development and environmentally sensitive areas
- Control of ownership by body corporate e.g. community title, strata title

Controlled Rating: Low

Source 8: **Urban water quality**
Existing Risk: Increased nutrient run-off to sensitive receiving environments
Risk Rating: Medium
Mitigation measures: Water sensitive urban design incorporating nutrient control systems prior to discharge
Controlled Rating: Low

Source 9: **Skidders Shoot sand quarries**
Existing Risk: Air quality, visual impact
Risk Rating: Low
Mitigation measures: None required
Controlled Rating: Low

5. Results (Step 4)

This LUCRA has identified and assessed several potential sources of land use conflict. The potential for conflict is insignificant in many cases due to one or more mitigating factors including:

- Physical distance to sensitive receptors (i.e. residential development)
- Duration, frequency or intensity of potentially conflicting activities

Subject to appropriate risk mitigation measures being implemented through the zoning system, master planning, development control and engineering/construction design, all potential land use conflict activities can be reduced to a “low” risk rating. Sources of potential conflict which will require mitigation are:

- Sunnybrand Chickens odour and noise. This can be addressed through non-residential land uses and distance between residential development and source.
- Ewingsdale Road traffic noise. This can be addressed by a variety of landscape treatments and building design controls.
- Potential impact of residential development and activity on sensitive habitat areas. This can be addressed through a combination of zoning, urban design, land management and education processes.
- Bushfire hazard can be addressed by complying with design and management practices contained in Planning for Bushfire Protection.

The proposed mitigation measures are specific, easily understood, easily designed, and relatively easy to implement. With these measures in place the potential for land use conflict will be unlikely and of minimal consequence.

Some of the mitigating measures can be implemented in the zoning system. Some mitigating measures do not pertain to zoning and should be held in the preliminary DCP ready to inform the next stage of planning work, namely a detailed master plan and detailed DCP.

In terms of Ministerial Planning (s117 Direction) 1.3 regarding extractive resources (with regard to the existing and potential Skinners Shoot sand quarries), inconsistency with that Direction is justified, and no mitigation measures are required.

A range of planning guidelines will apply to the master planning and development design stages, including Planning For Bushfire Protection, NSW Coastal Design Guidelines, North Coast Urban Design Guidelines and various standards for noise mitigation.

References

Learmonth, R., Whitehead, R., Boyd, B., & Fletcher, S., 2007, *Living and Working in Rural Areas. A handbook for managing land use conflict issues on the NSW North Coast*, Centre for Coastal Agricultural Landscapes.

PAEHolmes, 2010, air quality assessment for West Byron State Significant Site study.

TTM Acoustics, 2010, acoustic impact assessment for West Byron State Significant Site study.

Ennismorefield 2010, visual and landscape assessment for West Byron State Significant Site study.

P Parker, 2010, marine ecology assessment for West Byron State Significant Site study.

Australian Wetlands, flora and fauna assessment for West Byron State Significant Site study.

LandPartners Ltd, 2010, flora and fauna assessment for West Byron State Significant Site study.

LandPartners Ltd, 2010, bushfire hazard assessment for West Byron State Significant Site study.