Land Use Conflict Risk Assessment

Lot 104 DP751388, James Creek Road Subdivision

Quality solutions. Sustainable future.

GeoLINK Consulting Pty Ltd

PO Box 119
Lennox Head NSW 2478
T 02 6687 7666

PO Box 1446
Coffs Harbour NSW 2450
T 02 6651 7666

PO Box 1267
Armidale NSW 2350
T 02 6772 0454

info@geolink.net.au

Prepared for: MPD Investments

Certification

	Name	Date
Prepared by	Emma Anderson - Environmental Planner V7: Jacob Sickinger - Senior Environmental Planner	10/04/2024
Reviewed by	Jacob Sickinger - Senior Environmental Planner V7: Denique Murphy - Senior Environmental Planner	11/04/2024

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Table of Contents

Illustrations

Tables

Plates

Figures

Appendices

1. Introduction and Background

1.1 Background

GeoLINK has been engaged by MPD Investments to prepare a Land Use Conflict Risk Assessment (LUCRA) to support a development application (DA) for proposed residential subdivision at Lot 104 DP 751388 James Creek Road, James Creek within the Clarence Valley Local Government Area (LGA).

This report aims to review and consider the potential for land use conflict in the context of surrounding rural zonings and associated agricultural land uses and whether interface management is required as part of the proposed subdivision. This LUCRA should be read in conjunction with the Statement of Environmental Effects (SEE) and the associated design plans/ drawings.

A previous DA for a 336 lot subdivision of the subject land was refused by the Northern Regional Planning Panel in July 2023. One of the reasons for refusal was that the Proposal did not incorporate adequate land use buffers in response to adjoining land which could create potential for rural land use conflict and that a 50 m buffer treatment should be applied to all boundaries adjacent to rural zoned land (the north, east and west).

A new subdivision layout is now proposed with a lot yield of 290 lots and incorporates 50 m buffers for all boundaries to rural land. Consultation with neighbouring land holders has also been undertaken in March 2024 in relation to people's specific potential land use conflict concerns and to gather information on rural/ agricultural activity they may practice. This LUCRA assesses this revised Proposal and the concerns/ matters raised during the consultation with neighbouring landholders.

1.2 Proposal Overview

The Proposal is for subdivision of the site and associated development, including an internal access road that would connect to James Creek Road. The Proposal involves:

- Creation of 290 lots comprising of 280 residential lots, one commercial lot, one childcare centre lot, five open space lots and three drainage reserves plus one large residue lot. Residential lots are offset by 50 m from the northern, eastern, and western boundaries, plus an additional 23 m on the eastern boundary which is provided by the James Creek Road reserve. Lots along the southern boundary are offset from adjacent large lot residential land by approximately 25 m by the road reserve of Austons Lane, including a 5 m dedication of land to Council for this road reserve.
- Construction of infrastructure provisions (including service installations/ connections and road construction).
- The development would be staged chronologically across the five stages (Stage 1A, 1B, 2, 3 and 4) as depicted in **Figure 1.1**, subject to detailed design and sub-stages.

Access for all proposed lots will be via an intersection to James Creek Road. The internal road network comprises a permeable symmetric layout of through roads, including a main ring road and several smaller loop roads.

Illustration 2.1 and **Illustration 2.2** (in **Section 2.1** of this report) provide a site locality map and an aerial image of the site overlaid with the proposed subdivision layout.

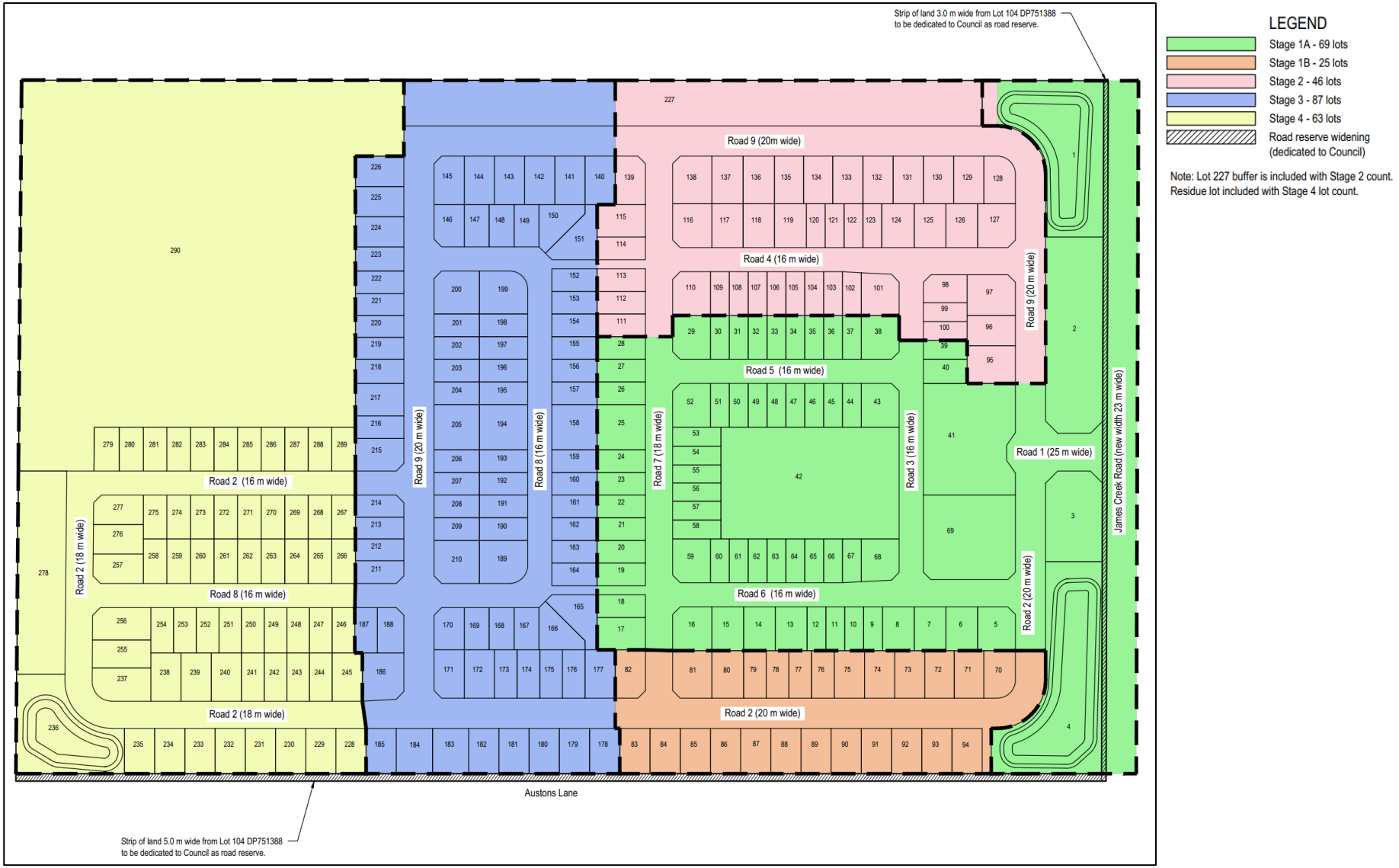


Figure 1.1 Proposed Subdivision Staging and Layout incorporating 50 m buffer to the western, northern and eastern boundaries

1.3 Planning Context

1.3.1 Statutory Controls and Local Environmental Plan

The site is zoned under the Clarence Valley Local Environment Plan 2011 (CVLEP) as follows:

- Zone R1 – General Residential.
- Zone R3 – Medium Density Residential.
- Zone E1 – Local Centre (formally B1 Neighbourhood Centre).

Table 1.1 shows the zone objectives for each of the relevant zones.

Table 1.1 Zone Objectives

LEP Zoning	Zone Objectives
Zone R1 – General Residential	■ *To provide for the housing needs of the community.* ■ *To provide for a variety of housing types and densities.* ■ *To enable other land uses that provide facilities or services to meet the day to day needs of residents.*
Zone R3 – Medium Density Residential	■ *To provide for the housing needs of the community within a medium density residential environment.* ■ *To provide a variety of housing types within a medium density residential environment.* ■ *To enable other land uses that provide facilities or services to meet the day to day needs of residents.* ■ *To enable serviced apartments while maintaining the medium density residential character and amenity of a locality.*
Zone E1 – Local Centre	■ *To provide a range of retail, business and community uses that serve the needs of people who live in, work in or visit the area.* ■ *To encourage investment in local commercial development that generates employment opportunities and economic growth.* ■ *To enable residential development that contributes to a vibrant and active local centre and is consistent with the Council's strategic planning for residential development in the area.* ■ *To encourage business, retail, community and other non-residential land uses on the ground floor of buildings.* ■ *To reinforce and support the central business districts of Maclean, Iluka and Yamba as the commercial centres for those towns.* ■ *To minimise conflict between land uses within the zone and land uses within adjoining zones.* ■ *To enable other land uses that are compatible with, and do not detract from, the viability of retail, business, entertainment and community uses within the zone.* ■ *To reinforce the neighbourhood centres of Coutts Crossing, Glenreagh, Lawrence and Ulmarra as the locations for commercial premises.*

The proposed subdivision has been designed to reflect the objectives of each of the zones and is considered consistent with the relevant zone objectives under CVLEP. The Proposal is permissible with consent.

Surrounding land use zones include a rural, large lot residential, and environmental zones. The site and surrounding zoning provisions are shown in **Illustration 2.2**.

1.3.2 Development Control Plan

The Clarence Valley Residential Development Control Plan (CVDCP) 2011 supports the provisions of CVLEP and provides a set of development objectives and provisions for development within the Clarence Valley LGA. The relevant provisions of the DCP and how they relate to the proposed development are addressed in the SEE.

The CVDCP (applicable to residential or rural zones) does not contain any specific policies or criteria relating to matters of potential rural land use conflict. Despite the lack of such guidance/ controls in the CVDCP, the accepted guideline to assess land use conflict is the NSW DPI *Living and Working in Rural Areas Handbook* (the Handbook). This is the primary guide to assess proposals when there are residential uses proposed to interface with rural land or agricultural activities. Other supporting guiding documents introduced by DPI since the publication of the Handbook in 2007 are addressed in Section 1.4.

1.3.3 North Coast Regional Plan 2041

The purpose of the North Coast Regional Plan (NCRP) 2041 is the five yearly update to the previous 2036 version. The NCRP is to provide a strategic land use planning framework to guide land use and planning priorities in the North Coast Region to 2041. The Plan informs local strategic planning and local environmental plans.

The NCRP 2041 acknowledges the significant changes that have happened across the North Coast over the past five years. The NCRP recognises the need to respond to key drivers of change, including COVID-19 which will require a stronger focus on facilitating new jobs and housing for a rapidly growing population. The NCRP also aims to avoid new development in high-risk areas prone to bushfire and flooding.

A critical action in the NCRP 2041 is to establish a Regional Urban Development Program to ensure the region can identify a 10-year housing pipeline to accommodate a rapidly growing population.

Key relevant Goals and Objectives include:

- *Goal 1 – Liveable, sustainable, and resilient*
  - *Objective 1: provide well located homes to meet demand.*
  - *Objective 2: provide for more affordable and low-cost housing.*
  - *Objective 8: support the productivity of agricultural land.*
- *Goal 3 – Growth change and opportunity*
  - *Objective 18: plan for sustainable communities.*

Noting the importance and strategic direction given to boosting housing supply, the NCRP 2041 also acknowledges the importance of rural lands and activity on the North Coast and the objective to support productive agricultural lands.

Key priorities for the Clarence Valley include:

- *Promote the sustainable use of regionally important farmland to support agriculture, horticulture, forestry, and aquaculture.*
- *Enable appropriate housing development throughout the LGA, including at Grafton, Clarenza, James Creek, Junction Hill, and West Yamba.*
- *Explore opportunities to provide more affordable housing near supporting infrastructure and services.*

- *Provide a diverse range of housing types with access to facilities and services that meet population and demographic needs.*
- *Protect and enhance the unique character of the LGA's towns and villages.*
- *Incorporate a placemaking approach to create sustainable and liveable communities.*

Importantly, these matters and related Directions and Actions are typically used to guide future urban land use planning and urban land release decisions, such as associated rezoning proposals. In the current context, the subject land at James Creek Road has already been through the strategic planning and rezoning process. It has been identified and designated for urban/ residential development and zoned according. James Creek is also clearly identified in the Plan (the priorities mentioned above) as an area to provide for appropriate housing growth.

The proposed subdivision has been designed to allow for the orderly future development of the site for residential purposes and ensure efficient use of land resources and contribute additional housing supply. The proposed development is permissible and consistent with the strategic context, subject to suitable consideration of proximal rural land/ agricultural activity.

1.3.4 Mid North Coast Farmland Project 2008

The Mid North Coast Farmland Mapping Project followed the Northern Rivers Farmland Protection Project which was completed in March 2005. The project has aimed to identify and protect regionally significant farmland from urban and rural residential encroachment and land use conflict. Additionally, it has aimed to encourage farmland areas to be targeted for land management assistance where suitable through Catchment Management Authority funding.

Regionally significant farmland is defined, for Mid North Coast Farmland Mapping Project, as 'land capable of sustained use for agricultural production with a reasonable level of inputs and which has the potential to contribute substantially to the ongoing productivity and prosperity of a region.'

The resulting maps (see **Figure 1.2** for excerpt of relevant map) showed farmland to be protected from urban and rural residential rezoning by the Minister for Planning's former Section 117 Direction under the *Environmental Planning and Assessment Act 1979*. As depicted in **Figure 1.2**, the subject site of the proposed subdivision is identified as "proposed urban area". Furthermore, the immediately adjacent land is not mapped as "regionally significant farmland" but is mapped as "other rural land". The nearest mapped regionally significant farmland is approximately 290 m to the east, and more than 300 m away from the nearest proposed residential lot (refer to **Illustration 2.2**).

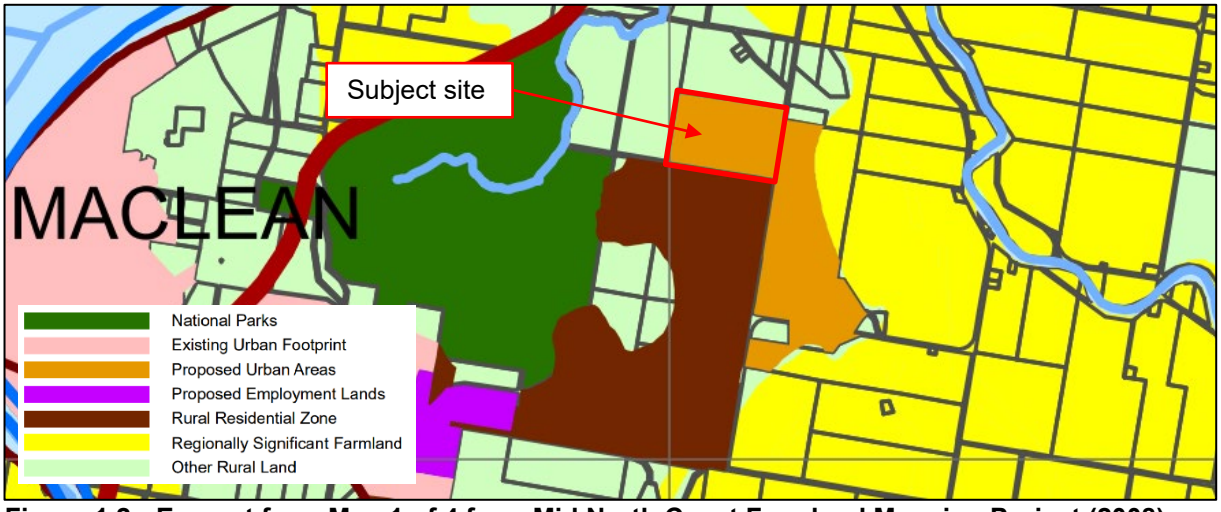


Figure 1.2 Excerpt from Map 1 of 4 from Mid North Coast Farmland Mapping Project (2008)

This acknowledges that at a strategic and statutory level, the site has been declared as suitable for residential purposes and the zoning/ agricultural land mapping reflects this. Nonetheless, the area is yet to commence urbanisation, and rural land and agricultural activities remain present in the surrounding area. Hence, more specific consideration of the potential for rural land use conflict is now given based on the proposed DA for residential subdivision. The purpose of this LUCRA is to assess the potential for land use conflict between existing rural uses/ activities and proposed residential uses, and recommend any necessary measures to help avoid, minimise, or manage this.

1.3.5 State Environmental Planning Policy (Primary Production) 2021

The relevant aims of State Environmental Planning Policy (Primary Production) 2021 (Primary Production SEPP) are:

(b) to reduce land use conflict and sterilisation of rural land by balancing primary production, residential development and the protection of native vegetation, biodiversity and water resources,

(c) to identify State significant agricultural land for the purpose of ensuring the ongoing viability of agriculture on that land, having regard to social, economic and environmental considerations,

Part 2.2 of the Primary Production SEPP provides identification and protection of agricultural land of State and regional significance. Land is State significant agricultural land if it is listed in Schedule 1. However, at the time of writing, Schedule 1 was blank, and the Primary Production SEPP does not identify any land that is afforded such statutory protection due to its agricultural significance.

1.3.6 State Environmental Planning Policy (Resources & Energy) 2021

Biophysical Strategic Agricultural Land (BSAL) is land with high quality soil and water resources capable of sustaining high levels of productivity and has been mapped under the above SEPP which offers protections from mining activity that could impact BSAL land.

BSAL plays a critical role sustaining the State's $12 billion agricultural industry. A total of 2.8 million hectares of BSAL has been identified and mapped at a regional scale across the State. As shown in **Illustration 2.2**, neither the subject site nor the immediately adjoining land is mapped as BSAL.

1.4 Living and Working in Rural Areas Guideline

The *Living and Working in Rural Areas Handbook* (Learmonth et al. 2007) (the Handbook) publication presents a consolidation of best practices and strategies arising from managing land use conflict on the North Coast of NSW. The Handbook addresses land use conflicts and interface issues arising between agricultural practices and neighbouring residents.

LUCRA's were initially conceived in the Handbook by the Centre for Coastal Agricultural Landscapes in partnership with the Northern Rivers Catchment Management Authority as a tool to better manage potential land use conflicts between residential development and rural activities and environmental attributes/ assets on the NSW North Coast.

The Handbook, in particular *Chapter 6 Development Control*, provides guidance in the assessment and mitigation of potential land use conflict matters and have been used as a resource for this LUCRA. The Handbook outlines principles and measures to avoid or minimise the potential for land use conflict. Land use buffers (physical separation) are a common land use planning tool in reducing potential conflicts through the separation of certain uses. Though it is recognised that the purpose and application of buffers will vary depending upon individual circumstances and merit assessment. The Handbook recommends various general buffer distances (in metres) that may be considered as an adequate separation between residential areas/ urban development and rural activities/ primary industries, with the most relevant to this assessment being:

- Grazing of stock: 50 m.
- Sugar cane, cropping and horticulture: 300 m.
- State and regionally significant farmland: 300 m.

It is important however, to recognise that buffers should not always be the default position and they are part of the toolkit in reducing land use conflict. While buffers can form part of a management response, they do not lessen the need for sound strategic planning and appropriate identification of land release areas and rezoning.

Additionally, generic application of separation buffers does not replace the need for individual assessment of a proposal based on the specific characteristics of the site, locality and proposal itself. The site, proposal, and contextual specifics will inform the need for and range of potential management measures, and numeric separation buffers should not necessarily be used as an "easy" default position. Local and site-specific circumstances and application of relevant policies and specific guidelines will guide what measures are ultimately reasonable and appropriate in the circumstances. It is also noted that whilst complying with a default or standard buffer setback can help reduce conflict, it cannot guarantee the avoidance of conflict or interface issues completely. Chapter 3 of the Handbook also describes other management practices that could be used to reduce potential conflicts.

There are also a range of buffer types that can be utilised, in addition to standard physical separation, these include:

- Separation buffers: are the most common and involve establishing a physical separation between land uses where conflict could arise.
- Biological and vegetated buffers: created by vegetation planting and physical landscaping works. These can be a substitute where default physical separation distances cannot be fully achieved and/ or also help with visual amenity and also reduce chemical spray drift and dust.
- Landscape and ecological buffers: refer to the use of existing vegetation to help reduce impact from development and can be used to maintain and protect existing vegetation and habitat.
- Property management buffers: refer to the use of alterative or specialised management practices or actions at the interface between uses where the potential for conflict is high.

It is noted also that where new residential development/ dwellings are proposed on existing land with dwelling entitlement(s), or within land that has been through the strategic planning process and rezoned accordingly to residential, the setbacks and buffers normally required in a predominately rural setting may no longer be necessarily the most appropriate or practical response (if measures are necessary at all based on the site context). In these cases, discretion should be used to determine the level of potential conflict in this context and any necessary conflict avoidance strategies. Variations to buffer recommendations are permissible and ultimately the strategy adopted should consider the site-specific circumstances.

This LUCRA has been prepared given the proposed residential land use of the site and nearby/ adjoining rural land. The purpose of the LUCRA is to identify land use compatibility and any potential conflict between the proposed land use and neighbouring land uses and therefore, assists in the identification of the potential for future land use conflict and any necessary management measures that may be required. The LUCRA aims to:

- assess the effect of the proposed land use on neighbouring land uses;
- identify any potential risk of conflict between the proposed and neighbouring land uses;
- provide an understanding of any likely land use conflict;
- where deemed necessary, address land use issues and risks before a new land use proceeds or before a dispute arises; and
- where required, highlight or recommend strategies to help avoid or minimise conflict.

In order to achieve the aims outlined above, a four-step assessment process has been undertaken as follows:

1. **Information Gathering** – The site biophysical characteristics, the nature of the development proposed, and the surrounding land uses are described.
2. **Risk Level Evaluation** - Each proposed activity is identified, and an assessment of potential land use conflict level is assigned. The higher the risk level, the more attention it will require.
3. **Identification of Risk Mitigation Management Strategies** – Where required, 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.

1.4.1 Factsheet: Landuse Conflict Risk Assessment Guide 2011

The DPI Factsheet *Landuse Conflict Risk Assessment Guide* was published in 2011 to provide guidance on practical measures to use when conducting a LUCRA and is primarily focused on conflicts affecting agricultural developments. The Factsheet identifies rural amenity issues as the most common land use conflict as listed below, followed by environmental protection issues. It also identifies direct impacts from neighbouring land uses on farming operations:

Rural Amenity issues:

- air quality due to agriculture and rural industry (odour, pesticides, dust, smoke and particulates);
- use and enjoyment of neighbouring land (eg noise from machinery); and
- visual amenity associated with rural industry (eg use of netting, planting of monocultures and impacts on views).

Environmental protection issues:

- soil erosion leading to land and water pollution;
- clearing of native vegetation; and
- stock access to waterways.

Impacts from neighbouring land:

- harassment of livestock from straying domestic animals;
- trespass;
- changes to stormwater flows or water availability; and
- poor management of pest animals and weeds.

The Factsheet confirms that it is the right of new rural residents, existing residents and rural producers alike to live in and enjoy rural environments. Furthermore, that to avoid and resolve disputes, information and communication are necessary to achieve informed and reasonable expectations and a mutual understanding of the needs of different lifestyles.

The Factsheet also confirms the important role a LUCRA can play in assessing and managing potential land use conflict. This LUCRA generally follows the suggested structure of the Factsheet which is consistent with the four-step assessment process outlined in The *Living and Working in Rural Areas Handbook*:

1. gather information about proposed land use change and associated activities;
2. evaluate the risk level of each activity;
3. identify risk reduction management strategies; and
4. record LUCRA results.

1.4.2 Primefact: An Interim Guideline: Buffer Zones to Reduce Land Use Conflict with Agriculture 2018

The *Buffer Zones to Reduce Land Use Conflict with Agriculture* (Interim Guideline) was produced by DPI in 2018 to provide further advice about incorporating appropriate buffer zones into developments, with suggested distances provided from which a development should be further evaluated for possible impacts. The Guideline notes the growing potential for community scrutiny of agricultural land uses as residential development continues to expand into areas that have long been associated with primary production, and as land typically used for agriculture purposes may be used less intensively. The Interim Guideline also mentions the NSW 'Right to Farm' Policy. 'Right to Farm' is a broad concept centred on the idea that primary producers should be able to undertake their lawful activities in accordance with accepted industry standards, without undue interference. The consistent application of separation distances is recognised in the Guideline as having a role in implementing this policy.

The Guideline states that the terms 'Buffer Zone' and 'Separation Distance', are often used interchangeably within the planning framework. They are defined by the Environment Protection Authority (EPA) as:

- Buffer Zone: An area of land set aside to minimise the impacts of land uses on each other.
- Separation Distance: The distance between the point of generation of an environmental impact and a receptor that is sensitive to that impact.

A separation distance may be used to specify the width of a buffer zone.

A buffer zone is also generally accepted as being an area where a landholder has legal control of the land needed to separate their development from adjoining land.

The Guideline also notes that elements like an access road and screening vegetation can also form part of a buffer.

The Guideline reiterates that land separation continues to be an effective way of minimising potential land use conflict and of enabling primary producers to operate effectively with fewer constraints, while it also plays a key role in farm biosecurity and in managing impacts on the environment from agriculture. The Interim Guideline notes that generally buffers for new residential developments should not rely on adjacent rural landholdings to provide buffer zones to the new development. Though the Interim Guideline also outlines that a site-based merit assessment through the environmental impact assessment process is relevant to assessing a proposal and determining appropriate buffers.

The 2018 Guidelines states that *Living and Working in Rural Areas Handbook* is still the most comprehensive publication pertaining to buffer/ separation distance. However, this interim guideline provides further guidance and updates.

The suggested evaluation distances in the interim guideline between sensitive receptors and agricultural activities relevant to the Proposal are as follows:

- Stock grazing 50 m.
- Stock yards 200 m.
- Outdoor cropping/ sugar cane 300 m.
- Outdoor horticulture 250 m.

It is noted that this Interim Guideline outlines that these are suggested evaluation distances, and not prescriptive buffer or separation requirements. For example, the 200 m distance for stock yards comes from State Environment Planning Policy (Exempt and Complying Development Codes) 2008 (Codes SEPP). The environmental planning instruments or documents referenced in the Interim Guideline in relation to evaluation distances may identify separation distances, or in some cases, such as the Codes SEPP, the identified distances are not recommended separation distances but approval

pathway triggers. That is, if a development falls within the distance prescribed in the Codes SEPP, a different planning pathway may apply (for example, a stock holding yard proposed within 200 m of a dwelling that is located on land on the opposite side of a road that separates the landholding, is not exempt development).

2. Information Gathering

2.1 Site and Proposal Overview

Details of the subject site and Proposal are summarised below:

Site details and address	Lot 4 DP751388, James Creek Road, James Creek.
LGA	Clarence Valley Local Government Area.
Zoning	Zone R1 – General Residential; Zone R3; Medium Density Residential; Zone E1 – Local Centre; as per CVLEP.
Development type	Staged residential subdivision and associated works, including low density residential lots, business and childcare lots, a residue lot, and construction of supporting infrastructure.

Illustration 2.1 shows the site locality and **Illustration 2.2** shows an aerial image of the site overlaid with zoning and the proposed subdivision layout.

0 1 Km

Site Locality - Illustration 2.1

GeoLINK environment | engineering | planning | design

Land Use Conflict Risk Assessment - James Creek Road Residential Subdivision
3204-1141

Information shown is for illustrative purposes only
Drawn by: AB Checked by: RE Reviewed by: JTS
Source of base data: OpenStreet Map
Date: 07/11/2023
Revision: B

2.2 Site Description

Lot 104 DP 751388 (the site) is rectangular in shape and has an area of approximately 33 ha. It is situated mid-way along James Creek Road in James Creek, bounded by James Creek Road to the east and Austons Lane to the south, with large rural lots to the north and west. The lot to the north is densely vegetated. Approximately 650 m further to the west flows James Creek and approximately 1.3 km to the east flows Palmers Channel. Both waterways flow north, discharging into the Clarence River approximately 1.7 km north of the site.

James Creek is a small, rural locality on the north coast of NSW. The nearest townships are Maclean, Gulmarrad and Yamba, all within 10-15 minutes' drive of the site. Grafton is the nearest larger centre, located 45 minutes' drive southwest.

The site has been historically cleared and modified for agriculture, sugar cane production and cattle grazing. It is currently essentially clear of vegetation other than grass. The crest of a small hill is located slightly to the north-west of the centre of the site. From this crest, the land falls away in all directions with slopes on the site typically in the range of 3% to 10%.

The site is predominantly zoned R1 General Residential, with a portion zoned R3 Medium Density Residential. There is also a small area approximately 2,100 m² zoned E1 Local Centre. This area has the potential to include a neighbourhood shop or similar compatible commercial development.

No natural watercourses or water features occur.

The site occurs on the New Italy (ne) soil landscape (Morand, 2001), characterised by moderately deep, poorly/ imperfectly drained Grey Kurosols and moderately deep, imperfectly drained Yellow Kurosols throughout hillslopes and crests. Shallow (<100 cm), moderately well-drained Orthic Tenosols (Siliceous Sands) occur within rolling to steep low hills forming on the Maclean Sandstone Member of the Walloon Coal Measures.

Photographs of the site's interface with James Creek Road and photos internal to the site are shown at **Plate 2.1** through to **Plate 2.4**.

Plate 2.1 Subject site (on left) interface with James Creek Road – looking north (source: Google Street view Dec 2023)

Plate 2.2 Subject site (on right) interface with James Creek Road – looking south (source: Google Street view Dec 2023)

Plate 2.3 Subject site: Cleared land proposed to be developed and adjacent northern vegetation

Plate 2.4 Subject site: Cleared land proposed to be developed and adjacent northern vegetation

2.2.1 Topography, Climate and Natural Features

The crest of a small hill is located slightly to the north-west of the centre of the site. From this crest, the land falls away in all directions with slopes on the site typically in the range of 3% to 10%. The site ranges in elevation from around 5 m AHD to 21 m AHD.

The site comprises grassland with limited and isolated stands/ scatters of native vegetation.

No natural watercourses or water features occur on the site.

The nearest weather station is located at Harwood Island (Harwood Sugar Mill) (6.6 km away); however, it does not offer the full range of climatic information. The next closest weather station with full statistics is located at Yamba Pilot Station (16 km away). Climate statistics from this weather station are provided at Figure 2.1. Whilst not reflecting the exact on-site/ local weather conditions, the results provide a reasonable indication of the general weather that can be experienced in the broader locality.

Summary statistics YAMBA PILOT STATION

A summary of the major climate statistics recorded at this site is provided below. There is also an extended table with more statistics available. More detailed data for individual sites is available.

Site information

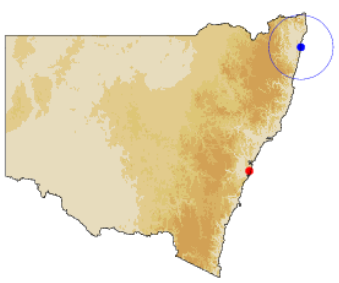
Site name: YAMBA PILOT STATION
Site number: 058012
Latitude: 29.43 °S **Longitude:** 153.36 °E
Elevation: 27 m
Commenced: 1877 **Status:** Open
Latest available data: 05 May 2022

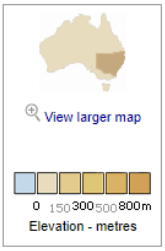
Additional information

Additional site information

Nearest alternative sites

1. 058027 HARWOOD SUGAR MILL (10.6km)
2. 058052 TABBIMOBILE STATE FOREST (27.3km)
3. 058212 EVANS HEAD RAAF BOMBING RANGE AWS (27.8km)





View: Main statistics / All available | Period: Use all years of data | Text size: Normal / Large

Statistics	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual	Years		Plot	Map
Temperature																	
Mean maximum temperature (°C)	26.8	26.8	26.1	24.3	21.8	19.7	19.1	20.2	22.1	23.4	24.7	26.0	23.4	145	1877 2022		
Mean minimum temperature (°C)	20.3	20.4	19.3	16.5	13.3	10.9	9.8	10.5	13.0	15.5	17.5	19.2	15.5	145	1877 2022		
Rainfall																	
Mean rainfall (mm)	139.5	163.2	191.6	160.4	153.4	136.7	100.3	75.2	58.8	79.6	92.3	117.7	1463.2	142	1877 2022		
Decile 5 (median) rainfall (mm)	112.5	137.6	163.4	136.1	123.2	112.5	65.8	54.4	42.6	65.7	76.2	102.4	1407.3	145	1877 2022		
Mean number of days of rain ≥ 1 mm	10.3	11.0	13.5	11.5	10.5	8.8	7.5	6.6	6.4	7.7	8.2	9.0	111.0	145	1877 2022		
Other daily elements																	
Mean daily sunshine (hours)																	
Mean number of clear days	8.0	6.3	7.8	9.9	10.7	11.5	14.6	16.1	15.2	12.1	9.6	9.4	131.2	54	1944 2010		
Mean number of cloudy days	10.7	10.7	11.7	9.4	10.7	9.5	7.6	6.2	5.6	8.2	9.9	10.0	110.2	54	1944 2010		
9 am conditions																	
Mean 9am temperature (°C)	23.8	23.5	22.6	20.3	16.9	14.1	13.1	14.7	18.0	20.4	21.5	23.0	19.3	58	1907 2010		
Mean 9am relative humidity (%)	78	81	80	79	78	78	74	70	67	69	74	76	75	54	1944 2010		
Mean 9am wind speed (km/h)	13.6	13.8	13.7	12.9	11.9	12.7	12.5	12.7	12.9	13.5	12.9	12.7	13.0	54	1944 2010		
9am wind speed vs direction plot																	
3 pm conditions																	
Mean 3pm temperature (°C)	25.2	25.3	24.4	22.7	20.5	18.5	17.9	18.6	20.1	21.2	22.6	24.0	21.8	55	1944 2010		
Mean 3pm relative humidity (%)	75	75	74	71	67	65	61	60	64	70	72	75	69	54	1944 2010		
Mean 3pm wind speed (km/h)	21.1	20.6	20.6	17.9	15.4	15.4	15.7	18.1	21.2	23.0	21.9	21.5	19.4	54	1944 2010		
3pm wind speed vs direction plot																	

Figure 2.1 Monthly Local Climate Conditions and Statistics

Wind observations for Yamba are shown in the wind roses at **Figure 2.2** and **Figure 2.3**. Annual wind direction averages predominately tend from the south and southeast, with gentle westerlies also experienced in the morning. Winds predominately tend from south, southeast and northeast in the afternoon. Wind speed is mostly medium, with gentle and gusty conditions also experienced. However, it is noted that this stronger wind gust is likely influenced by the coastal location of the Yamba Station, with wind speeds generally less inland and therefore wind speeds at the site are likely to be low to medium.

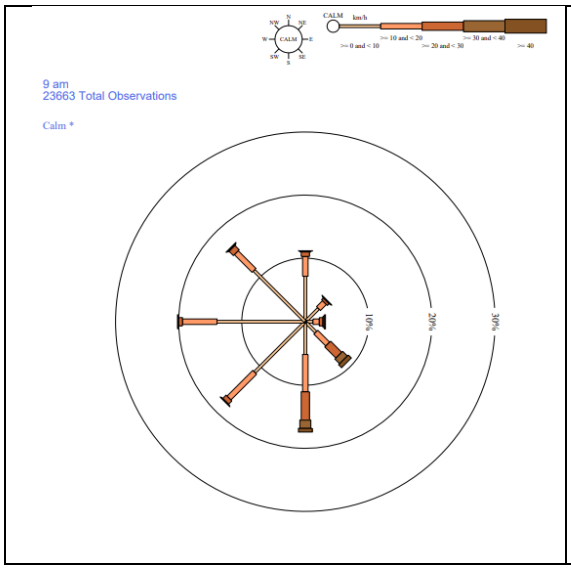


Figure 2.2 Annual Wind Rose 9 am

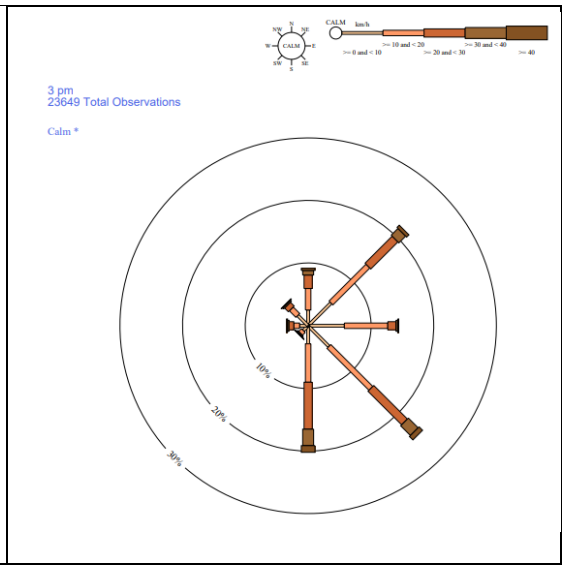


Figure 2.3 Annual Wind Rose 3 pm

2.2.2 Adjoining and Surrounding Land Uses

The site sits on a large property within a largely rural context, with village type and large lot residential urban development present in the broader locality. Surrounding land is mostly rural in character and comprises grazing land, cropping and horticulture, and interspersed rural dwellings/ hobby farms, with a notable large lot residential development area directly to the south.

The following land uses adjoin the boundaries of the site:

- To the north is a rural property within the RU2 Rural Landscape zone, comprising forested land which extends along the entire northern boundary (refer to Plate 2.3). The nearest dwelling to the north is about 300 m away. Consultation with neighbours indicates that at times some cattle graze this land. There is also the suggested intention (though undefined) to use it for other income generating purposes in the future. However, with the largely forested state and vegetation clearing controls, it's potential use is considered somewhat limited, and as no specific potential future use was identified/ defined it is standard practice to assess against the current land use.

- To the east is James Creek Road, including some roadside vegetation. Beyond the road is rural land zoned RU1 Primary Production, comprising open grassland and scattered trees, drainage lines and minor intermitted waterbodies. Further to the east, commencing about 550 m from the site, are crops (sugar cane) and horticulture. The nearest dwelling to the east is approximately 200 m away. There is a domestic scale stockyard/ holding pen located on the eastern side of James Creek Road (refer **Plate 2.11** to **Plate 2.12** below).

- To the south comprises of R5 Large Lot Residential zone that has been developed accordingly with dwellings. The nearest dwelling in this zone is about 120 m south of the boundary.

- To the west is rural land zoned RU2 Rural Landscape. The adjoining western lot is a medium sized holding of about 33 ha and occupied by a dwelling (about 220 m to the northwest of the subject site). The land is partly forested with remanent vegetation, including a section along the western boundary, and partly grassland currently used for cattle grazing. Approximately 20-30 cattle have been previously observed grazing the open pasture during a site inspection in April 2022. In a submission to Council from an adjoining land holder, it is advised that this lot forms part of a 700-acre farming operation upon which a herd of 80 breeders together with sugar production is undertaken. Pasture improvement is also already actively undertaken as part of farming activities with plans for further fodder crops and horticulture (e.g. soybeans and macadamia nuts). Currently, the activity present along the western interface is grazing land, with interspersed/ pockets of trees.

- Further to the west is more rural land and also environmental conservation zoning that covers swampy forests/ wetland areas. A view of historical aerial imagery indicates that the land use activity on this land has not materially changed for decades. This land is more than 250 m from the boundary with the development site, and is largely contained within the Yaegl Nature Reserve, which would suggest that it is unlikely to be able to support or be used for intensive agricultural activity.

The zoning and land uses present in the surrounding area, including that described above and dwellings surrounding the site, are depicted in **Illustration 2.2**.

There are no other sensitive or intensive land use types within 300+ m of the site. In addition to plates **Plate 2.1** and **Plate 2.2** above showing the eastern interface, **Plate 2.5** to **Plate 2.12** show the land use characteristics at the west, north and south boundaries of the site, as described above.

Plate 2.5 Vegetated land adjoining the northern boundary interface

Plate 2.6 Large Lot Residential Land/ Development to the South

Plate 2.7 Rural land to the west (partly forested section)

Plate 2.8 Rural land to the west (edge of forested area opening to grazing land beyond)

Plate 2.9 Open western interface to cattle grazing land

Plate 2.10 Scattered trees along western boundary with grazing of cattle beyond

Plate 2.11 Cattle yard/ pen east of James Creek Road

Plate 2.12 Cattle yard/ pen east of James Creek Road

2.2.3 Consultation

2.2.3.1 Previous Consultation and Submissions

Following lodgement of the previous iteration of the development application in April 2023, documentation pertaining to the proposed development was placed on public exhibition. The Proposal attracted a number of submissions, primarily submitted by landholders and residents of the James Creek locality.

A meeting was convened by CVC on the afternoon of Thursday, 18th of May 2023 as an opportunity for the submitters to discuss their specific concerns related to the Proposal with the applicant. This meeting was attended:

- Murray Lane, CVC, Manager Development and Land Use Planning.
- James Hamilton, CVC, Coordinator Development Services.
- Ben Bancroft, CVC, Development Engineer.
- Chris Dear, CVC, Development Engineer.
- Alex Clark.
- Rachel Health, PlanIt, Senior Town Planner (acting on behalf of CVC).
- Mike Willoughby, WM Developments, Director/ Engineer for the applicant.
- Peter Bell, Place Design Group, Planning Principal for the applicant.
- Duncan Thomson, GeoLINK, Principal Environmental Engineer for the applicant.
- Michelle Erwin, GeoLINK, Senior Civil Engineer for the applicant.

- Several owners of the land adjacent/ close to the subject site.
- Representatives of the James Creek Residents Action Group.

After a brief background of the proposal status given by Council, the submitters were given time to voice their concerns regarding the Proposal. This included provision of details of the particular activities carried out on the adjoining land which the adjoining landowners believed to be in conflict with the proposed development on the subject site. Time was also given to consultants engaged by the applicant to explain the proposed design, specifically detailing how the design addressed Council's development criteria, and how the design response would eliminate, minimise or mitigate any impacts to the surrounding environment.

These discussions and the previous DA submissions, particularly those that outlined how adjoining farmland was used, have assisted to inform the current Proposal and design response. Amongst other things, the revised design subject to this DA has incorporated additional setbacks/ buffers from adjacent rural land in response and the LUCRA has been updated having regard to the neighbours' concerns and the types of rural/ agricultural activity they conduct, particularly in regard to, but not limited to, the primary rural/farm interfaces.

2.2.3.2 2024 Consultation

During March 2024, GeoLINK undertook a letter box drop and had discussions with/ received comment from adjoining and adjacent residents/ farmers to discuss, confirm, and address any information gaps, about:

- The extent and type of agricultural activity undertaken nearby.
- Specific concerns regarding potential rural/ agricultural land use conflict as a result of the proposal.

The letter box drop was provided to rurally zoned (RU1 and RU2) properties within 300 m of the development site (based on the buffers in the Handbook as a guide) and adjoining large lot residential properties (R5 zone), being a total of 18 properties. A copy of the letter provided, and the distribution extent, is attached at **Appendix A**.

Verbal consultation was undertaken with, and/ or written comments received from, the following property owner/ occupiers (note: names have been withheld for privacy, however, can be provided to Council if required):

- 217 James Creek Road
- 112 James Creek Road
- 138 James Creek Road
- 272 James Creek Road
- 282 James Creek Road
- Representative on behalf of the James Creek Residents Group
- 199 James Creek Road.

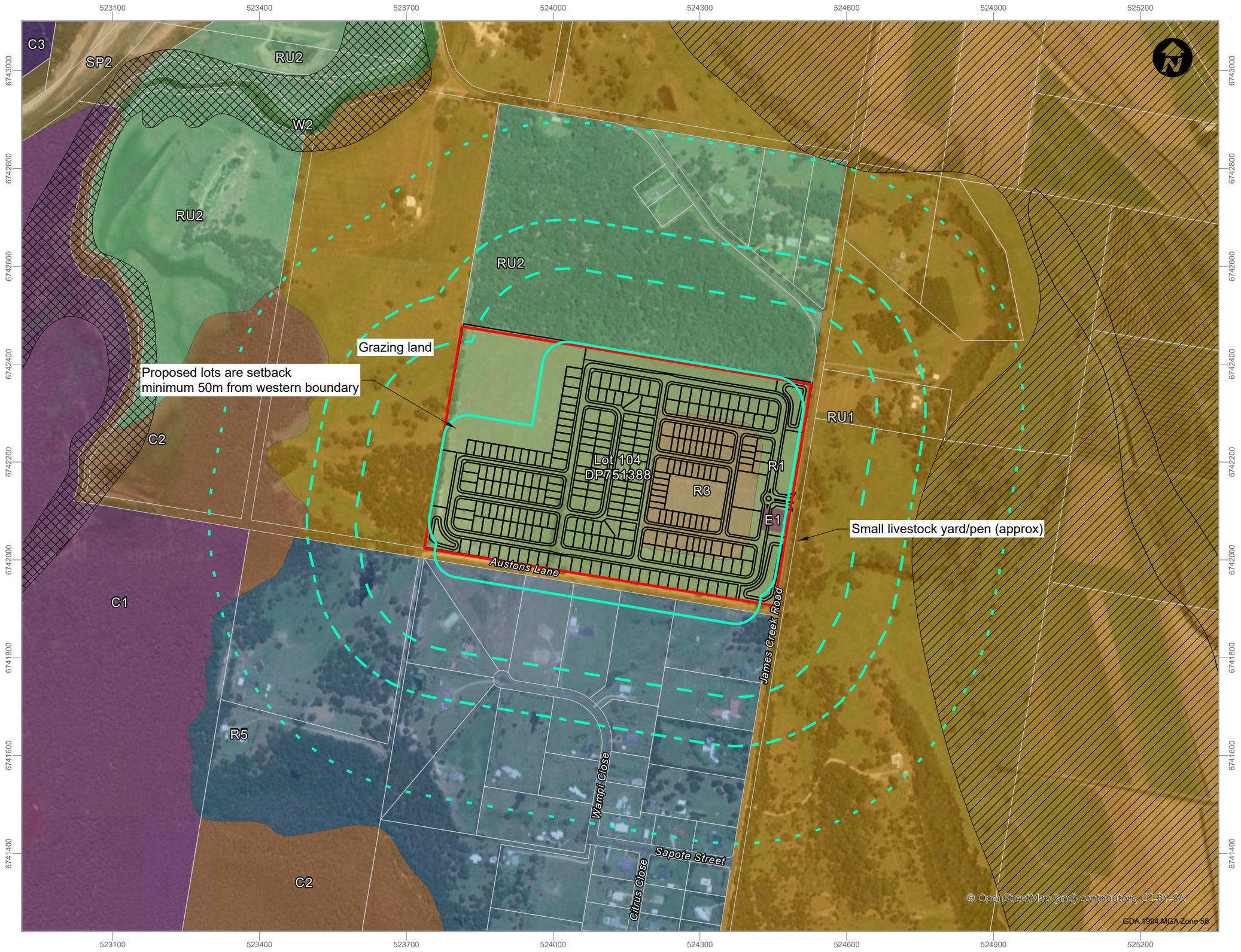
A summary of the comments relevant to potential rural land use conflicts and agricultural activity provided are contained in **Table 2.1** based on the phone calls and written comments received. A file note recording the verbal consultation and a copy of written comments received is provided in **Appendix B**.

Table 2.1 Summary of Consultation with Neighbouring Residents/Farms

Neighbouring location/contact	Summary of Comments
217 James Creek Road	■ Fourth (4th) generation farmer. Farm is 45 meters northeast of the proposed subdivision and classed 'state significant farmland'. ■ I run 30 Angus cows with calves, plus 1 bull. ■ Share farm with my parents 80 acre property at 135 James Creek Road which is to the north of the proposed estate. ■ Regularly move cattle along James Creek Road by stockhorse & working dogs between our family farms, 112, 135 & 217 James Creek Rd. May also use the stockyards at nearby farm at 303 James Creek Road (across the road from the proposed development) if my stockyards are inaccessible. This has been done for over 100 years by family generations. ■ Effect of increased traffic on the movement of my cattle not addressed by the developer. We hold a routine stock movement permit. ■ I use the bush paddock on the north side of the proposal for my cattle. I slash the fence line and use chemicals for lantana & weed control. Concerned the buffer has walking paths in it and someone could be injured. ■ Concerned about everyday farming practices causing conflict with new residents (e.g. shooting, slashing, spraying, fertilising, drenching cattle, marking calves, weaning calves, selling calves). This can be noisy at times. ■ Concerned more domestic dogs could attack stock and cats and dogs effect on wildlife. ■ Storm water runoff from the estate will run through my property. Concerned that the extra runoff and the extra time the lower part of my property spends under water during high rain periods will affect my soils nutrient loss. Concerned that excess water and pollution could contaminate property including watering holes, dams and pastures. ■ Trespassing onto my property as I have unfenced dams, there is a chance of drowning. ■ LUCRA needs to consider farming properties on the eastern side of the development, including myself & Alan Adamson. ■ Request for a 50 meter fully vegetated buffer with no parks, no walkways, no coffee shops etc. ■ Area is not suitable for the proposed housing development, considering there is valuable farming surrounding it. ■ Provided video of several cattle in the small stock yard west of James Creek Road mooing. ■ Concern about water runoff from development and increased wetting making land unsuitable in times of flood or heavy rain.
112 James Creek Road	■ Concerns are unchanged from our previous submissions. ■ Run cattle on 112 James Creek Road (west of the site) and own cropping land further to the east (beyond 303 James Creek Road – i.e. 400m away). ■ Revised design/ LUCRA are only minor changes. ■ Density, transition, and lot yield unacceptable. ■ There is no 20 m vegetated/ element screen on the western boundary of the balance block. There are two rows of lots in the balance area that are open to our farming activities and exposed to odour, pesticides, dust, smoke and particulates. ■ Believe the 50 m separation area should be “no people” areas, otherwise how is this separating farming activities from residential? The paths, etc have not been addressed.

	■ Currently moving our stockyard to the top of the hill as James Creek Road will be too busy. Its new location is approximately 100 m northwest of the proposed subdivision and could create associated potential impacts. ■ Where broadcast spraying can't occur, we do use pressurised handgun off a tractor to spray cockspurs, lantana, regrowth (can be up to 3 m high). ■ Potential to grow soybeans and plant macadamias, which have high potential for conflict, and therefore substantial buffers should be put in place to mitigate conflict. ■ Concern about traffic/ safety and moving tractors via road. ■ Concern about moving stock on James Creek Road and increase traffic and safety hazard (people don't slow down/ pay attention to stock zone signs); believe speed limit should be reduced to 60km/ h. All roads should be upgraded to be able to handle increased traffic from the new proposed subdivision. ■ Concern about stormwater increase/ runoff, including volume and frequency, and that basin discharge would affect their property. Considered unacceptable, impacting livelihood creating wet, soggy and unusable areas. ■ Avoiding dispute and conflict in the first instance should be priority. ■ Verbally mentioned that their cattle are generally quiet. ■ Mentioned paths/ parks in the buffer area are not considered appropriate. ■ Concern about trespass and suitable boundary fencing (prefer solid fencing/ barrier which may deter dogs, trespass, rubbish, and help with noise and spray. ■ Other concerns include biosecurity, heat bank, light pollutions, effects to wetlands and Yaegl reserve.
138 James Creek Road	■ Concerns remain largely unchanged from the previous submissions. ■ Density too high. ■ Whist not currently utilising our property to its full potential [largely forested], we aim to make money off our rural zoned land in the future. Whether or not property remains vegetated, livestock would still be able to create noise and smells right to the edges of our property, as can farm vehicles, pumps, firearms etc. ■ LUCRA needs to consider future potential uses of our land, not just current. ■ We have run cattle, sprayed weeds, used farm machinery. ■ Buffers inadequate, north buffer not appropriate as encourages people to use the land adjoining ours for example the path and road. ■ Bushfire regulations may mean buffer is not vegetated and this is not appropriate to reduce impacts of spraying, and livestock smells and noises etc. ■ Undertake maintenance of boundary with slashing and spraying weeds, generally on a regular basis but is influenced by seasons/ vegetation growth. Concern for safety if people use path nearby. ■ Commented on the need for an effective type of boundary fence to prevent people and pets entering property. ■ Concern about littering and biosecurity. ■ Unknown impacts of stormwater, increase runoff and possible pollution from water. ■ Unknown use of balance/ vacant lot. ■ Concern about heat sink of a concrete "village" and light pollution will affect our land, farming, and wildlife.

272 James Creek Road	■ Runs up to 7-8 head of cattle, plus looking to increase to around 15 through agistment. ■ Concern about water discharge to dam and water for cattle. ■ Concern about flooding and discharge/ runoff into their property from development site and increase in water. ■ Undertakes some slashing and limited spraying.
282 James Creek Road	■ Did not mention any current farming activity occurs. ■ Question about what the stormwater modelling is based on and doesn't agree that 1:100 is adequate anymore. ■ Question about the influence on stormwater has on downstream rural land. ■ Flooding concern and higher peak flows. ■ Why doesn't the development have a buffer to the south as per a pervious concept illustration shown at the time of rezoning? Thinks it should have a 50 m buffer to the south.
Representative on behalf of the James Creek Residents Group	■ Appreciate efforts to establish consultation between stakeholders. ■ Disappointed at the short consultation period provided. ■ There are several residents –especially those who neighbour the subdivision - who would wish to be involved. ■ Suggested a group meeting. GeoLINK called in response to the letter/ email received to clarify scope of the consultation is related to the LUCRA only and that intent is to speak to individual property owners about their agricultural land use practices and any specific concerns. Letter gave seven (7) days to make contact to discuss or organise a time to discuss. This is also separate from the council advertising/ exhibition of the DA which would provide further opportunity for comment.
199 James Creek Road	■ Didn't mention they practice a specific agricultural activity on their land, but concerned for broader rural community. ■ Inappropriate style of development and density. ■ The 50 metre buffers are not buffers. There are roads, paths, bio-basins and buildings in these so-called buffer areas. ■ There are community facilities planned within 50 metres of agricultural land on the eastern side. ■ No buffer at all on the southern side. ■ Suitable boundary fencing needed. ■ Proper transition zone be established between this proposed subdivision and surrounding land. ■ Increased runoff from bio-basins (and questions their effectiveness) onto rural land. ■ Lack of consultation and concern that advertising started immediately after LUCRA consultation period. GeoLINK clarified these are separate consultation matters and Council determined when to advertise the DA, and a revised LUCRA was being prepared following that consultation initiated by GeoLINK separately. ■ Buffer should extend to all western boundary. ■ Questions about future of balance lot. ■ Loading of cattle on James Creek Road opposite entry and child care centre causing traffic access/safety concerns.



0 150 Metres

Site Zoning and Surrounding Land Use Context - Illustration 2.2

GeoLINK environment | engineering | planning | design

Land Use Conflict Risk Assessment - James Creek Road Residential Subdivision
3204-1141

Information shown is for illustrative purposes only
Drawn by: AB Checked by: AB Reviewed by: JTS
Source of base data: Google Maps
Date: 07/11/2023
Revision: B

2.3 Potential Land Use Conflict

2.3.1 General Potential Rural Interface Conflicts

The proposed development of a site should consider the surrounding land use context and where necessary be designed to minimise instances of incompatibility such that any important agricultural values or farming practices that may occur in an area are not inhibited, or adversely affect the amenity of future residents. Where such instances do arise, measures to ameliorate potential conflicts may be necessary.

Conflict between residential development and agricultural land uses (particularly intensive forms) is most likely to occur where residential land uses directly abut, or are close to, active farmland and primary production such that they are likely to be affected by regular agricultural activities, particularly where these activities may be intensive. Conflict between the proposed residential development of the site and existing agricultural activities is a potential issue at this site given the proximity to adjacent rural land and agricultural activities (i.e. cattle grazing, production of crops or fodder etc). The likelihood is not expected to be high however, given measurements incorporated into the design of the subdivision to control and minimise potential external impacts and also the nature and scale of adjoining agricultural activities and compared to those located further away. Furthermore, the area is zoned for residential/ urban purposes (meaning there is a reasonable expectation for development to occur) and there are no obvious high conflict activities present in close proximity.

Generally, potential conflict can arise from the use of agricultural chemicals, noise, dust and odour generating activities. Adverse impacts of the proposed future residential development of the site on farmland could include traffic, noise (vehicles), trespass, rubbish dispersal, vermin control, sediment and stormwater run-off. Complaints from new residents about proximal and intensive agricultural activities can also cause conflict and put pressure on agricultural uses if they cannot effectively co-exist.

When considering potential land use conflict between residential and agricultural activities it is important to also recognise that all agricultural activities:

- should incorporate reasonable and practicable measures to protect the environment in accord with the *Protection of the Environment Operations Act 1997* (POEO Act) and associated industry specific guidelines; and
- are legally conducted as required by other legislation covering workplace health and safety, and the use and handling of agricultural chemicals.

Nevertheless, certain activities practised by even careful and responsible farmers/ operators may result in a nuisance to adjacent residential areas, for example, unavoidable odour drift and noise impacts. People's sensitivity to potential nuisance/ impacts can also be variable and subjective.

Possible typical conflicts that can arise between agricultural enterprises and residential development are provided in **Table 2.2**.

Table 2.2 Typical Conflicts that can Occur Between Agriculture/ Rural Activities and Nearby Residential Uses

Concern/ Conflict Issue	Common Causes
Noise	■ Dogs, general livestock noise. ■ Equipment, pumps, plant, spray machines, transport. ■ Ancillary equipment associated with on-farm processing. ■ Livestock processing. ■ Extractive industry processes (excavation, blasting etc).

Concern/ Conflict Issue	Common Causes
Odour and Dust	■ Soil disturbance and excavation. ■ Excess/ concentrated manure. ■ Agricultural fertilisers and chemicals. ■ Intensive animal industries. ■ Management and application of effluent to pasture.
Health concerns	■ Chemicals. ■ Spray drift. ■ Smoke.
Water	■ Access. ■ Pumping. ■ Quantity. ■ Runoff and pollution.
Smoke and ash	■ Burning off.
Visual amenity	■ Large structures. ■ Netting. ■ Greenhouses.
Nuisance	■ Stray dogs. ■ Vandalism. ■ Trespass. ■ Noxious and environmental weeds.

The Handbook (in particular Chapter 6 Development Control) provides guidance in the assessment and mitigation of potential land use conflict matters and has been used as a resource for this LUCRA where applicable.

The following additional guidelines and other local Council DCPs have also been considered as reference material and informed this assessment:

- *Buffer Zones to Reduce Land Use Conflict with Agriculture* – NSW Department of Primary Industries (2018).
- *Land Use Conflict Risk Assessment Guide* – NSW Department of Primary Industries (2011).
- *Planning Guidelines: Separation Agricultural and Residentials Land Uses* – The State of Queensland, Department of Natural Resources 1997.
- Lismore Development Control Plan (Chapter 11).
- Nambucca Development Control Plan (Section F1.3).

2.3.2 Site-Specific Observations and Potential Conflicts

Conflict between the proposed residential development of the site and agricultural activities is of low to medium risk/ consequence in this context given the design of the proposed development, the nature and scale of the adjoining agricultural activity, and the known expectation for residential/ urban development to occur given the site zoning and strategic land use planning proposes that has already occurred.

In Summary:

- There is limited anticipated risk of rural land use conflict to the north given the adjoining block is heavily forested and despite the owner suggesting (albeit not defining) an intent to use the land, this would be somewhat limited due to the forested condition and vegetation clearing controls. Whilst some limited cattle grazing is said to periodically occur, future activity for intensive agriculture use is considered unlikely (ie. the vegetation is unlikely to be cleared for the purpose of intensive agricultural use). It is noted that the boundary (understood to be for the width of an

access track) is maintained with a slasher and occasional spraying weeds. The design provides for a 50 m buffer to this interface, including planting within part..

- There is no notable rural land use conflict risk to the south, given the interface with a large lot residential development. Some of these properties may have animals, including limited numbers of livestock for hobby purposes, however this would be more akin to pets and lifestyle/ hobby farm situations given the restrained size of lots (being about 2 ha) and ultimately the R5 zone is a class of residential zone. The laneway and a proposed vegetated batter provide for a modest buffer nonetheless.

- The eastern interface does not present any immediate rural activity or high risk of conflict. The proposed frontage setback/buffer, James Creek Road, and border vegetation provides adequate separation from grazing land and the cropping land beyond (over 300+m away), which is well separated from the site and satisfies the recommended separation buffer in the Handbook. The small cattle yard/ pen located east of James Creek Road would be separated from the proposed residential lots by more than 80 m, including the 23 m wide road reserve and a further 50 m setback from the nearest lot to the road frontage, and is expected to be used only intermittently. It is noted that a public recreation/ open space area (referred to as the entry parkland on the landscape plans) is proposed along the frontage of the site, adjacent to the entry and is within 50m of grazing land to the east. A range of soft landscaping/ planting and a feature fence is proposed along the frontage of the development site. Roadside vegetation along the east side of James Creek Road also extends for the approximate length of this public open space area, further offering a buffer in conjunction with the road width and 5 m wide landscaping along/ with the development frontage. Refer to Section 3 and 4 for assessment discussion.

- The western boundary interfaces with open forest and pasture grazing land. The forested section is established and approximately 100 m wide by 200-220 m long (along the boundary). The adjoining landowners advised in their previous DA submission that a rotational grazing system is employed, meaning at times the stocking density can be higher. Furthermore, the adjacent area may be utilised by stock for shelter (in the open forest) or during times of flood, when the lower sectors of the property are subject to inundation/ flooding. Open pasture adjoins the northern half of the western boundary, with cattle able to roam free to the boundary fence. A site inspection in April 2022 confirmed that the primary use appears to be cattle grazing, with around 20-30 cattle observed in the distance. However, the adjoining owner has advised up to 80 head of cattle could be run in this paddock and some potential cropping is being considered. No significant agricultural activity, odour or noise was observed at the time and there were no cattle yards, sheds, stock transporting infrastructure or other intensively used facilities ancillary to livestock grazing activities present or within view of the western boundary interface. Through consultation, the owner has advised they are establishing a stockyard about 100 m northwest of the development site boundary. The proposed development provides a minimum 50 m setback to this boundary, partially vegetated.

- Information provided in the previous DA submission from the adjoining landowner confirms that, depending on seasonal conditions, they have capacity to run up to 80 breeders over this area, which is part of a total area of 88 ha. Details of the paddock rotation arrangements have been provided by the landowner, who advised that the paddock directly adjoining the proposed subdivision is occupied from approximately eight months of the year, outside of which typical maintenance activities may include fencing, slashing, fertilising, weed management and so on. While the activities within this area would not seem to be intensive nor potentially offensive (in comparison to intensive livestock activities such as dairies, feedlots, pig or poultry farms), there is potential for these activities to affect future adjoining residential uses. It has also been advised that pasture improvement, fodder crops, and weed management via spraying occur.

This rural activity could have the potential to result in the following conflict points with new residential uses (the likelihood of occurrence and potential consequence/ risk of such matters specific to this local context/ interface is assessed in **Section 3**):

Noise:

- Noise emissions can adversely affect residential amenity and enjoyment.
- Noise emissions could occur from livestock, marking and weaning calves, and noise radiated by farm vehicles, machinery, power-tools, gates and other associated/ ancillary farm infrastructure such as pumps, ramps, loading facilities, yards and sheds (of which there are none observed nearby) and vermin control (e.g. use of firearms).

Dust and debris:

- Dust emissions can adversely affect residential amenity and enjoyment. Dry periods, land cultivation/ frequent machinery movements, or potential overstocking of livestock could result in related dust and air quality impacts.
- Slashing during dry periods could generate dust. Slashing also has the potential risk of objects/ debris being ejected from the blades at high velocity during operation.

Odour:

- Livestock (including the rare occasion if an animal carcass is present), wet/ boggy areas, and excess accumulation of dung (and flies) can cause potential odour if herds and pastures are not managed appropriately. Fertiliser application could also potentially cause odour. Depending on wind conditions and proximity, these odours can drift and affect residential amenity and enjoyment.

Spray drift and residue:

- Graziers if they are not practicing organic grass-fed production can use chemicals. Farms may use pesticides and herbicides that are applied via spraying, as confirmed from submissions and consultation. Primarily if and when these are employed, they are done so in ideal conditions i.e. without strong winds, meaning sometimes this may take place at night. However, the potential for off-target movement of agricultural chemicals (spray drift) can be a cause for concern to residents in proximity. Concerns generally relate to agricultural chemical exposure, but also due to detection of odours associated with the chemical. No aerial agricultural spraying is known to occur in the immediate area.

- It has been advised that spot/ targeted and broadcast spraying is undertaken at the adjoining property (west and north). Spraying at pressure increases the proportion of small droplets from a nozzle which are prone to drift via wind. Small droplets can travel long distances in air currents and can cause damage to other crops, and the environment. The west adjoining landowner advised they 'regularly' use a pressurised boom spray on a tractor for weed control activities and to the north the boundary vegetation/ weeds are also controlled with slashing and spraying. Boom spraying has the potential to drift depending on the conditions, however given it is being primarily used for targeting ground/ weed level chemical application, this reduces the likelihood of direct compared to more elevated or horticultural type spraying. Spot spraying of weeds by low pressure knapsack or hand lance from a vehicle are also common potential spray requirements associated with certain farming activities. This method is targeted and does not present a significant risk of spray drift to the proposed adjoining residential development. The western owner also uses a pressurised handgun off a tractor to spray cockspurs, lantana, regrowth (can be up to 3 m high) where broad spray cannot occur. This however is expected to be targeted, therefore minimising drift and off-target application. There are codes of practice for agriculture and the use of chemicals and requirements to avoid/ minimise spray drift; however, deviation from codes of practice can occur, and by the same token, complaints may occur despite compliance.

Biosecurity:

- Introduction of diseases and parasites.
- Introduction and spread of weeds.

Domestic Animals:

- Domestic animals, including dogs, may get lost and chase or attack livestock.
- Use of poisons or shooting for vermin control may result in accidental poisoning or death of domestic animals.

Surface water and sediment laden runoff:

- Excessive irrigation or heavy rainfall could cause sediment, fertiliser or chemical laden surface water runoff to occur and impact land and the environment downstream. Alternatively, the proposed urban development will alter land surface characteristics and the hydrological balance on the subject site. The increase of impermeable surfaces and changes to drainage patterns can accelerate soil erosion, siltation and sedimentation, result in rubbish dispersion on adjoining land, and increase the risk of runoff or potentially influence flooding if not appropriately designed and managed. Techniques to alleviate conflict due to downstream effects of the proposed development include suitable erosion, sediment and stormwater control/ treatment during the construction and operational stages of the development. A stormwater assessment has been prepared for the development.

Traffic and access:

- Agricultural machinery/ vehicles could cause traffic delays or interruptions if slow moving or heavy vehicles frequent the area/ use the same collector road and if adequate design/ updates are not undertaken. Similarly, new residential development will generate increased traffic movements that may impact primary industry traffic access and movements if appropriate road infrastructure is not provisioned.
- There are potential safety concerns for existing livestock movement along the road corridor due to increased traffic and driver behaviour when temporary stock zones are in use.
- A traffic impact assessment has been prepared for the development.

3. Land Use Conflict Risk Assessment

3.1 Potential Activities, Issues and Risk

This assessment primarily relates to issues arising from potential conflict between agricultural practices/ activities and the proposed residential subdivision. Potential risks or impacts that may give rise to possible land use conflicts have been considered and evaluated in the context of the site, surroundings and land use policy setting to establish if any minimisation or management measures may be required.

In this instance, the main potential for conflict to arise would be through perceived or actual impacts from adjoining grazing and farming activities, particularly but not limited to the west, on future residential uses/ development. All potential conflict points identified in **Section 2.3** have been evaluated for risk in the following sections.

3.2 Risk Evaluation and Ranking

A risk assessment matrix is used in LUCRAs to rank the potential land use conflicts in terms of significance. The matrix assesses the environmental/ public health and amenity impacts according to the:

- probability of occurrence; and
- severity/ consequence of impact.

The procedure of environmental/ public health and amenity hazard identification and risk control are performed in three stages.

1. Environmental/ public health and amenity hazard identification;
2. Risk assessment and ranking;
3. Risk control development.

Procedure:

1. Prepare LUCRA Hazard Identification and Risk Control table/ form.
2. List all hazards associated with each activity.
3. Assess and rank the risk arising from each hazard before “controls” are applied on the LUCRA form.
4. If required, an unacceptable risk rating is indicated, develop controls that minimise the probability and consequence of each risk using the five level methods.
5. Re-rank each risk with the control in place to ensure that the risk has been reduced to an acceptable level. If the risk ranking is not deemed to be acceptable, consideration should be given to whether the proposed activity should be allowed to proceed or whether additional management is required.

3.2.1 Risk Assessment Probability and Severity

Activities with the potential to cause conflict are assessed and ranked using the risk assessment/ ranking matrix shown in **Table 3.1**.

It is necessary to differentiate between an ‘environmental hazard’ and an ‘environmental risk’. ‘Hazard’ indicates the potential for harm, while ‘risk’ refers to the probability of that harm occurring. For example, the presence of chemicals stored in a building is a hazard, but while the chemicals are stored appropriately, the risk is negligible.

The risk ranking matrix yields a risk ranking from 25 to 1. It covers each combination of five levels of 'probability' (as defined in **Table 3.2**) and five levels of 'severity' or 'consequence', (a number 1 to 5 as defined in **Table 3.3**) to identify the risk ranking of each impact. For example, an activity with a 'probability' of D (unlikely) and a 'consequence' of 3 yields a risk rank of 9.

A rank of 25 is the highest magnitude of risk that is a highly likely, very serious event.

A rank of 1 represents the lowest magnitude or risk, an almost impossible and very low consequence event.

Generally, a risk rating of 1-10 is considered an acceptable risk that does not need intervention; whilst a risk ranking of 11-25 (highlighted red) is considered an unacceptable risk and likely requires management/ mitigation measures to help avoid or reduce potential risk to an acceptable level.

Table 3.1 Risk Ranking/ Assessment Matrix

PROBABILITY	A – Almost Certain	B – Very Likely	C – Possible	D – Unlikely	E – Rare
CONSEQUENCE					
1 – Severe	25	24	22	19	15
2 – Major	23	21	18	14	10
3 – Moderate	20	17	13	9	6
4 – Minor	16	12	8	5	3
5 – Negligible	11	7	4	2	1

Table 3.2 Probability of Occurrence

Level	Descriptor	Description
A	Almost certain	Common or repeating occurrence; is expected to occur.
B	Likely	Known to occur or 'it has happened'.
C	Possible	Could/ might occur or 'I've heard of it happening'.
D	Unlikely	Could occur in some circumstances but not likely.
E	Rare	May occur, but only in exceptional circumstances; highly unexpected.

Table 3.3 Measure of the Consequence/ Severity of Impact

Severity	Description and Implications
Severe (Level 1)	■ Severe and/ or permanent damage to the environment or potentially health/safety. ■ Irreversible even with management. ■ Odours so offensive people are evacuated or leave voluntarily. ■ Many public complaints. ■ Almost certainly contravenes protection of the environment and operations act (POEO act) and the conditions of Council's licenses and permits.
Major (Level 2)	■ Serious and/ or long-term impact to the environment or potentially health/safety. ■ Long-term management implications. ■ Some public complaints, impacts pass quickly. ■ Likely contravenes POEO act and the conditions of Council's licenses and permits.
Moderate (Level 3)	■ Moderate and/ or medium-term impact to the environment or potentially health/ safety. ■ Some ongoing management implications. ■ Broader public unaware and no, or only few localised, complaints. ■ Impacts generally pass quickly. ■ May contravene POEO act and the conditions of Council's licenses and permits.
Minor (Level 4)	■ Minor and/ or short-term impact to the environment or potentially health/safety. ■ Can be effectively managed as part of normal operations. ■ No complaints. ■ Does not contravene POEO act or the conditions of Council's licenses and permits.
Negligible (Level 5)	■ Very minor impact. ■ Can be effectively managed as part of normal operations. ■ No measurable or identifiable impact on the environment.

Each proposed activity is recorded on **Table 3.5** and an assessment of potential land use conflict level is assigned accordingly. Ranking is given before and after any relevant ameliorating measures are applied to mitigate the given activity impacts. The higher the risk level, the more attention/ management it will likely require in order to reduce the ranking level. Risk rankings are derived from the risk ranking tables above.

Table 3.4 below provides an overview of the site features and conditions that can influence the potential level of conflict. These potential factors can influence the potential level of conflict and therefore inform the subsequent risk assessment. The areas of potential conflict outlined in **Table 3.4** will then be addressed through the risk/ hazard assessment and management measures/ controls outlined in **Table 3.5**.

Table 3.4 LUCRA Site Assessment and Influential Factors

Site Feature/ Element	Condition/ Comments	Potential for Conflict
Residential Development / Buffer Distances	Default buffer/separation distances to residential development from the following activities identified in the Handbook/ Primefact Guideline include: ■ Grazing of stock: 50 m. ■ Sugar cane, cropping and horticulture: 300 m. ■ State and regionally significant farmland: 300 m. ■ Stockyards: 200 m. ■ No horticulture/ plantations/ cropping is present within 300+ m of the proposed residential lots. This satisfies the buffer recommendation. ■ The nearest mapped regionally significant farmland is about 290 m away from the site frontage and more than 300 m from the nearest proposed residential lot. This satisfies the buffer recommendation of 300 m. Refer to **Illustration 2.2.** ■ A 50 m buffer is proposed from all residential allotments to adjoining rural land to the north, east and west and in the case of the eastern boundary this buffer is further complemented by the 23 m road reserve. This is consistent with the Guidelines. The separation distance between the proposed entry public park/ open space at the frontage and east grazing land on the opposite side of James Creek Road is at least 23 m, with the existing public road in between and roadside trees/ vegetation present (which also extends into the adjoining rural property to form a pocket forest), plus approximately 5 m wide of soft landscaping along the development frontage. A feature fence is also proposed to the frontage. Whilst the Handbook generally says sensitive uses include public parks should not be located within buffer zones, other guideline/ reference material suggests parks/ open space could be situated within buffers where appropriate. The risk of conflict to the eastern interface is considered low and adequately buffered to allow public open space in the proposed area. ■ The land to the west is used for stock grazing and associated pasture/ weed management. The inclusion of the 50 m buffer within the development site satisfies the buffer recommendation. This separation buffer should be further enhanced with vegetation to further minimise risk, including potential spray drift.	Adjacent grazing, pasture management, combined with the potential congregation of stock within the forested area and a small stockyard to the east, and associated land management presents a low to medium potential for conflict.
Site Location: Vehicular Access	The subject site would be accessed off James Creek Road. This is the main road that local rural activities use. Hence there could be conflicts between heavy and slow-moving vehicles and future residents' cars, as well as stock movement within the road reserve Measures to reduce any potential traffic impacts would be addressed through the design, development and traffic assessment component of this DA, including any necessary road upgrades and intersections, and speed limit reductions. A traffic impact assessment has been prepared and provides relevant recommendations.	Low to moderate

Site Feature/ Element	Condition/ Comments	Potential for Conflict
Exposure and wind	The majority of wind likely to be experienced in the area (refer to Wind Roses at **Figure 2.2** and **Figure 2.3**) would be of moderate speed and primarily from the south or east, or north east.	Low-moderate
Run-on and Seepage, Site Drainage and Water pollution	Run-on or seepage on adjoining farmland will be negligible. The land is undulating however there are no defined drainage lines water courses present on site. A stormwater assessment has been prepared. Discharge locations remain unchanged, with some formalisation works that may result in improvements to drainage infrastructure. It is understood that the findings demonstrate that water quantity and quality can be appropriately managed and would not pose unreasonable or unacceptable impacts.	Low
Agricultural Chemical Spray Drift	Spot/ targeted and broadcast spraying occurs on the adjoining properties, including via tractor and boom. Given prevailing wind conditions and the 50 m distance buffer, significant spray drift is not expected, however could occur and therefore vegetation should be included in the west and north buffer to minimise this risk from immediately adjoining activities.	Low-moderate (depending on location and application method)
Odour	With the range of rural activities in the area (e.g. cattle grazing, use of spray implements, fertilizer application) there is the potential for activities to impact on adjoining residential uses. Areas of surface saturation could increase odour, however wet and low-lying areas are more than 50 m from the proposed residential lots, although cattle do periodically utilise the forested area to the west for shelter and flood refuge. The stock yard/ pen east of James Creek Road does not appear to be of a commercial or intensive scale or used for long-term holding. Provision of the recommended 50 m buffer, combined with the road width and presence of vegetation would adequately reduce the risk of odour.	Low-moderate
Noise	The likelihood of noise impacts from the existing agricultural activities is relatively low given there would be intermittent use of tractors and vehicles, general noise of grazing livestock, and there is a lack of proximal ancillary farm infrastructure (such as sheds, cattle yards and loading infrastructure). The 50 m buffers, combined with vegetation and road reserve, would also ameliorate potential impacts from noise generated as part of agricultural activities on the adjoining property. No significant or unreasonable noise is expected.	Low-moderate
Dust and slashing debris	The main sources of dust from nearby rural activities could include soil cultivation, tractor use, potential over-stocking (though unlikely), and transport movements. These activities in the local context of the adjoining land are not considered high risk in relation to generating airborne particulate matter (dust). Further, wind speeds are not expected to be significant at this location. The dominant wind directions would also minimise direct exposure to potential dust.	Low

Site Feature/ Element	Condition/ Comments	Potential for Conflict
	Potential effects are further reduced with the inclusion of the 50 m separation buffers and a further barrier provided by vegetation that can be implemented along the western buffer. Slashing has the potential risk of objects/ debris being ejected from the blades at high velocity during operation and being a safety risk if there are nearby bystanders. Separation from the adjoining rural/ farming properties reduces this risk, including the width of James Creek road and existing/ proposed vegetation and boundary fencing.	
Residential subdivision design	The residential subdivision has been designed to make efficient use of land resources zoned for such purposes. The layout includes an outer perimeter road along the northern, east and west boundaries, and the provision of a 50 m buffers as per the guidelines, adequately responds to minimising potential impacts. The development will comply with Council policy and satisfies the DCP. All residential dwellings will be adequately setback from street frontages, side and rear boundaries. All lots will be adequately fenced. The development would be adequately engineered and designed to manage traffic and stormwater quality and quantity.	Low

Table 3.5 Hazard Identification, Risk Evaluation, Mitigation/ Control & Ranking

Activity	Identified Potential Issue/ Hazard	Risk Ranking	Mitigating Factors and/ or Control Methods	Residual and/ or Controlled Ranking
Noise (livestock grazing and ancillary farm activity/infrastructure)	Potential noise from livestock, including marking and weaning calves on the western property and from the cattle yard/ pen to the east. Also noted a cattle yard is being established on the western property about 100m to the northwest of the development site boundary. Livestock may also utilise the nearby forested area west of the boundary as flood refuge and/ or shelter/ shade. Noise produced by gates, machinery (e.g. chainsaws, power-tools, spray rigs, pumps), farm vehicles (e.g. tractors and ATVs) and other associated/ ancillary farm infrastructure (e.g. pumps, irrigation, cattle ramps, loading facilities, yards and sheds). Potential noise associated with pest/ vermin control and use of firearms, sometimes at night.	C3 = 13 unacceptable.	No significant noise is expected, however common background farm noise would be intermittently present. The immediately adjoining farm activity is not considered high intensity or concentrated, and there is no immediately nearby ancillary farm infrastructure expected to generate high additional noise. Cattle may congregate in the forested area for shelter and flood refuge; however, this would also be on an intermittent, impermanent basis and subject to pasture/ paddock rotation. General cattle noise could at times be considered a nuisance, though is not considered unreasonable or adverse and can generally be tolerated. The small cattle yard/ pen to the east is of a modest scale. Its use is anticipated to be intermittent, and it shows no signs of high use. A cattle yard to be established on the western property about 100 m to the northwest of the development site boundary is sufficiently separated, noting the northwest corner of the development site is not proposed to accommodate development at this stage and a western buffer is to be provided. Occasional livestock noise is not unreasonable and would generally be tolerable in this context. Likewise, noise from vehicles and machinery would be intermittent, although there is potential for tractors to be used at night to achieve suitable conditions to minimise spray drift, impacts on bees etc. The use of firearms is strictly regulated, and users must attend mandatory training and be appropriately licenced.	C4 = 8 acceptable.

Activity	Identified Potential Issue/ Hazard	Risk Ranking	Mitigating Factors and/ or Control Methods	Residual and/ or Controlled Ranking
			The provision of a 50 m separation buffer as recommended by the guidelines, combined with vegetated enhancement along the west and north, and the road reserve and a range of soft landscaping along the eastern frontage, will effectively reduce potential issues and conflict associated with noise.	
Dust generation	Dust emissions can adversely affect residential amenity and enjoyment. Dry periods, land cultivation/ frequent machinery movements, or overstocking (though unlikely) could result in related dust and air quality impacts.	C4 = 8 acceptable.	Dust generation as a result of agricultural activities on the adjoining property are not anticipated to be of a scale or intensity to result in unacceptable effects on residential premises. Pasture/ paddock rotation (confirmed by landowner) would periodically rest areas and minimise potential damage to/depletion of ground cover/ pasture. The provision of a 50 m separation buffer as recommended by the guidelines, including a vegetated component to the western boundary and general soft landscaping to the eastern would effectively reduce potential issues and conflict associated with possible dust drift.	D4 = 5 acceptable.
Proximal slashing debris	Potential risk of projectiles from slashing and safety if near to public open space/ sensitive receivers and road users. Whilst the consequence to health and safety could be high, the likelihood of occurrence is expected to be relatively rare.	E2 = 10 Acceptable	Buffers provided and boundary fence is proposed along north, south, east and west interface. Recommended that no paths (excluding the perimeter roadside path) or recreation areas to occur in the vegetated buffers along the west or north boundary where there is a direct rural/ agricultural property interface. Separation distance between proposed public open space/ park at the site frontage/ entry and grazing land on the opposite side (east) of James Creek Road is at least 23 m, with an existing public road in between and roadside and paddock trees/ vegetation present opposite the open space location, plus linear soft landscaping is proposed at approximately 5 m wide along the development frontage. A fence is also	E2 = 10 Acceptable

Activity	Identified Potential Issue/ Hazard	Risk Ranking	Mitigating Factors and/ or Control Methods	Residual and/ or Controlled Ranking
			proposed to the frontage and subject to detailed design /material selection could further minimise risk. Farmers and tractor/ slasher operators are required to follow work health and safety requirements.	
Odour	Livestock activity/ presence (including if an animal died nearby), wet/ boggy areas, and excess accumulation of manure can cause potential odour which could drift. There is also the potential that conditions could result in increased fly population. Odours associated with application of herbicides for weed management and/ or fertiliser. It is noted that some agricultural chemicals contain strong odours to enable easy identification over a long distance. This can cause concern even where extremely low levels of chemical may be present. Although, no significant odour is expected there is some potential as a result of wet and/ or warm weather conditions, wind direction or when cattle 'camp' in the vicinity of the forested area.	C3 = 13 unacceptable.	The subdivision design incorporates measures that are appropriate to mitigate any potential impacts from odour as a result of adjoining farming operations, given the scale and intensity of activities. The 50 m separation buffer combined with a vegetated component within the western boundary of the development site will act as a screen and further reinforce the effectiveness of the distance between the source of the potential odour and the receptor. The 50 m buffer to the east and between the cattle yard/ pen is increased another 23 m by the road reserve. It is also set back a further 5-10 m from the road reserve. This, combined with existing vegetation and soft landscaping along the eastern frontage of the development site is sufficient considering the nature and scale of activities at this site. The planted/ vegetated buffer (using appropriate species, including native flowering species can help minimise odour), as recommended, would assist in reducing any potential occurrence of odour. Effective animal carcass disposal carried out in accordance with relevant Department of Primary Industry standards would prevent potential problems associated with odour or other health and environmental impacts.	C4 = 8 acceptable.
Runoff and erosion management during	Potential for sediment laden or contaminated runoff and erosion if	C3 = 13 unacceptable.	Sedimentation and erosion controls will be implemented for the construction phase of the development.	D4 = 5 acceptable.

Activity	Identified Potential Issue/ Hazard	Risk Ranking	Mitigating Factors and/ or Control Methods	Residual and/ or Controlled Ranking
development construction	not effectively managed during construction.			
Surface water changes and stormwater management from proposed development	Increase of impermeable surfaces and stormwater runoff and potential risk of erosion during heavy rain events, particularly after dry events Need for appropriate integration and management of stormwater and avoidance of potential impacts to receiving environment and catchment, including treatment/quality of stormwater leaving the site.	C3 = 13 unacceptable.	Stormwater runoff would be captured by drainage system/ infrastructure, including basins, with adequate quality and quantity targets achieved (refer to separate stormwater assessment report). The design of the residential development would address stormwater management and drainage in accordance with accepted standards and Council's Development Control Plan. To prevent offsite issues as a result of increased stormwater generation, a stormwater management strategy has been designed for the proposed development and an assessment prepared. Measures include, but are not limited to, the following: – Earthworks will reprofile the development site to redirect run-off and reduce the catchment area which flows into neighbouring land. – Discharge locations remain as they are now, with formalisation/ improvement of drainage infrastructure as required. – Substantial stormwater management devices for water treatment, detention and infiltration have been designed to intercept runoff and provide appropriate stormwater management. – The design aims to mimic the current situation regarding the physical discharge of surface water across the boundary and physical measures will be incorporated to disburse runoff across a wider area consistent with the existing drainage to avoid concentration of runoff. – The post-development peak flows will be no more than the pre-development peak flows for all design storm events. This will reduce the	C4 = 8 acceptable.

Activity	Identified Potential Issue/ Hazard	Risk Ranking	Mitigating Factors and/ or Control Methods	Residual and/ or Controlled Ranking
			risk and likelihood of scour and erosion within the downstream farmland and is over-and-above standard requirements. – Stormwater treatment modelling using industry standard MUSIC software indicates that Council's treatment requirements will be met, and pollutant loads leaving the site in the post-development situation will be less than in the pre-development situation. – A long-term water balance simulation indicates that the combination of rainwater reuse, evapotranspiration, and infiltration into the underlying soils from the bioretention basin and infiltration trench, will result in the average annual volume of surface water runoff onto the adjoining property in the post-development situation being considered acceptable, with peak flows controlled to be no more than current.	
Surface water and sediment laden runoff	Potential for sediment laden or contaminated runoff from up-slope agricultural practices into residential areas and impacts on water quality, including stock water, as a result of increased pollutants.	D5 = 2 acceptable.	There are no adverse impacts expected given the topography of the land and setbacks to residential lots.	D5 = 2 acceptable.
Rubbish dispersal	Potential for rubbish dispersion onto adjoining land from residential development.	C3 = 13 unacceptable.	The residential subdivision will be serviced by Council's waste collection service. Measures will also be incorporated into the stormwater management system to capture litter and rubbish.	D4 = 5 acceptable.
Use of Agricultural/ Horticultural Sprays	Spray drift associated with weed management and application of herbicides has the potential to adversely affect the comfort, health and safety of persons in non-	C3 = 13 unacceptable.	All landholders are required to incorporate reasonable and practicable measures to protect the environment in accordance with the POEO Act and associated industry specific guidelines and are subject to workplace health	C4 = 8 acceptable.

Activity	Identified Potential Issue/ Hazard	Risk Ranking	Mitigating Factors and/ or Control Methods	Residual and/ or Controlled Ranking
	targeted areas. There can also be perceived risk related to this practice being nearby. The main risk is to the nearby open adjoining western interface where there is open grassland and weed management activities. It is understood that occasional spraying of weeds also occurs along the northern boundary and may occur east of the site also. Given the use of primary ground pasture/ weed chemical application, or targeted spraying, it is assumed that spray drift would generally be limited.		and safety, and guidelines for the use and handling of agricultural chemicals. The 50 m separation buffer as recommended and inclusion of vegetation in the buffer between farming activities to the west and the nearest proposed residential lots (those located within the stage 4 area of the development), and to the northern boundary, would act as an effective barrier to assist in reducing/ capturing potential occurrences of spray drift. The separation to the east, combined with existing vegetation and proposed soft landscaping, is considered reasonable and would provide for additional buffer effectiveness to the area set aside for public open/ parkland, with residential development set further back within the development site.	
Threats to biosecurity	■ Introduction of diseases and parasites. ■ Introduction and spread of weeds.	C3 = 13 unacceptable.	■ Adequate boundary/ exclusion fencing during construction and operation of the development (the site will be fenced with dog-proof fencing). ■ In NSW everyone has a general biosecurity responsibility under the *Biosecurity Act 2015* to prevent, minimise and avoid the risk of from weeds. ■ During construction only clean machinery would be brought to site, disturbed ground would be stabilised progressively, and appropriate management measures implemented to prevent the possible spread/ tracking of soil and weeds.	D4 = 5 acceptable.
Domestic animals	■ Domestic animals, including dogs, may get lost and chase or attack livestock. ■ Potential accidental poisoning of domestic animals from use of poisons for vermin control (eg 1080).	C3 = 13 unacceptable.	■ The residential estate will be fenced with dog-proof fencing along the west, north, and south boundaries. ■ All residential lots/ rear yards would be securely fenced. ■ There are Council policies for ownership of pets and associated responsibility (registration/ microchipping etc).	E3 = 6 acceptable.

Activity	Identified Potential Issue/ Hazard	Risk Ranking	Mitigating Factors and/ or Control Methods	Residual and/ or Controlled Ranking
	■ Use of firearms associated with vermin control and euthanasia of sick or dying animals.		■ The use of both poisons associated with vermin control and firearms is strictly regulated and users must attend mandatory training and be appropriately accredited/ licenced. ■ The use of some pesticides/ poisons requires mandatory community notification to be undertaken to inform the public and minimise potential accidental poisoning occurring.	
Traffic and access	Potential conflicts between farm/ heavy vehicles and residential vehicular access and generation along James Creek Road. Cattle/ stock movement along James Creek Road reserve and potential conflict/ safety concerns with increased traffic and associated current speed limit of 80km/h.	C3 = 13 unacceptable.	A Traffic Impact Assessment has been prepared for the proposal to address the effect the proposed development is likely to have on the operation of adjacent roads, and considering the impacts on road users. It found James Creek Road suitable to accept the additional traffic. Recommendations have been made to address the findings and traffic generation, including but not limited to: ■ James Creek Road is proposed to be widened/ upgraded at site frontage. The intersections with the future urban area will be designed to meet engineering standards to adequately and safely cater for the expected traffic generation, accounting for both existing traffic and traffic post development. ■ TfNSW has the responsibility for reviewing and setting speed limits in NSW. All requests for an assessment or a review of a speed limit must be directed to TfNSW regional office for the area with that road section, usually via the relevant local Council. Following discussions with TfNSW Northern Region representatives the speed limit along the frontage of the development is proposed to be reduced from 80 km/ h to 60 km/ h to improve safety. Farmers moving cattle on the public road would do so in accordance with an applicable permit and place out signage to establish a temporary stock zone and	C4 = 8 acceptable.

Activity	Identified Potential Issue/ Hazard	Risk Ranking	Mitigating Factors and/ or Control Methods	Residual and/ or Controlled Ranking
			advising of their presence. According to Local Land Services, in a temporary stock zone, drivers must give way to stock and all other animals and any vehicle accompanying the stock.	

4. Discussion, Conclusion and Recommendations

The land use conflict risk assessment presented in **Section 3**, particularly **Table 3.5**, has identified and evaluated a range of potential land use conflicts between the future residential development of the subject site and surrounding land uses in the rural landscape, notably proximal cattle grazing and land/ pasture management activities on adjoining land to the west, as well as similar activities but with lesser risk profiles to the north and east.

While land in the broader locality contains active farmland including cropping activity, this is primarily located over 500 m to the east and northeast and satisfies the separation recommendations of the Handbook in these directions. The current proximal/ adjoining farmland and rural activity is cattle grazing and associated land/pasture management activities to the east (on the opposite side of James Creek Road) and adjoining the western boundary. Consultation indicates grazing and boundary land management/ maintenance also periodically occurs on the forested bush block to the north.

Most of the potential conflicts identified in this LUCRA are of low risk, with some being moderate or medium when unmitigated. The following matters were identified as being ranked as potentially unacceptable (though still not significant) prior to taking into account mitigating factors and/ or control methods. These include the following matters associated with adjoining grazing/ land management activity and the interface with the proposed residential development:

- Noise.
- Odour.
- Runoff and erosion management during development construction.
- Surface water changes and stormwater management from proposed development.
- Use of Agricultural/ Horticultural sprays.
- Threats to biosecurity.
- Domestic animals.
- Traffic and access.
- Rubbish Dispersal.

Of the above, water runoff, stormwater and erosion management, threats to biosecurity, domestic animals, and traffic/ access can be managed through common/ standard measures that do not involve or require buffers or alternative buffer solutions (e.g. vegetated buffers). These matters have been assessed in **Table 3.5** as being manageable, with an acceptable residual risk, based on design outcomes and engineering requirements and associated specialist assessments that would be required as part of the subdivision design and Proposal anyway (i.e. to address relevant LEP and DCP provisions and standards).

Potential impacts from adjoining agricultural activities, including possible noise, dust and slashing debris, spray drift from weed/pasture management, and odour were not considered high risk or considered to be unmanageable. Yet even with low or moderate risk there is still the potential for conflict when introducing new urban residential uses in proximity. The inclusion of the 50 m separation buffer within the development site between residential lots and the adjoining rurally zoned land, including the main grazing activity, is consistent with the Handbook's recommended 50 m grazing land setback and would reduce potential impacts from the cattle grazing and associated activities on future residential receivers. The buffer to the western interface should be complemented and enhanced by implementation of a vegetated element/ screen, as should the northern interface. Furthermore, the additional 23 m road corridor east of the site and existing and proposed vegetation enhances this buffer to the eastern interface with James Creek Road and grazing land beyond. On

this basis and review of the landscape design, the proposed area for a public park/ open space at the development frontage is considerable acceptable and not at high risk of rural land conflict.

The proposed arrangement is considered to be acceptable and justified as follows:

- There is no notable risk of agricultural land use conflict along the site's southern boundary, and risk to the northern interface with the rural bush block is limited/ low.
- Proximal surrounding agricultural activities have been assessed and do not pose a significant risk of conflict. Minor to moderate risk is present, yet is/ can be reasonably manageable.
- More intensive plant-based agriculture and cropping, as well as mapped significant farmland (east of the site and James Creek Road), is well separated from the site, satisfying the Handbook and guideline recommendations and objectives.
- A minimum 50 m buffer is provided from adjoining rural land to the west, north and east. This is consistent with the guidelines for grazing land. In the case of the eastern interface and some public open space (the entry park) within the 50 m setback, the buffer also includes open space areas which will be landscaped/ planted and further separated by the 23 m wide James Creek Road reserve. This is considered reasonable to minimise potential issues associated with grazing and land management activities to the east and with intermittent use of the small cattle yard/ pen which is only expected to be used for periodic short holding and or loading/ unloading of stock. The presence of vegetation within the rural property to the east and along much of the roadside would limit slashing activity from occurring directly nearby, and this combined with the road width, vegetation (existing and proposed) and fence along the development frontage would generally minimise the risk of possible debris from slashing activity on rural land reaching areas that people may use within the estate. It is also noted that this risk would not be greater than Council roadside slashing activity, which would be subject to health and safety requirements.
- The adjoining western interface, whilst rurally zoned and used for agriculture activity, is not considered to be (historically or presently) subject to intensive agriculture, however that does not necessarily mean the land could not potentially be used for more intensive purposes and consultation has indicated the potential for some future crops/ plantation. Cattle grazing and land management activities (e.g. pasture and weed management) have occurred historically and are currently present. This is generally at the lower end of the impact/ risk scale, with potential increased moderate risk associated with times of higher herd numbers and land management, including weed spraying by tractor boom/ elevated height and pasture improvement/ fodder if this occurred nearby. Hence the 50 m buffer separation to residential lots as per the Handbook for grazing land, augmented with a 20 m wide vegetation buffer, is recommended. This is consistent with guidelines to reduce potential impacts of adjoining activities on residential properties, including the intermittent use of the forested area by stock for refuge, possible spray and odour drift, and some contingency for other potential future activity/land uses.

  The arrangement is also acceptable given the lack of farm infrastructure in this location that could otherwise potentially concentrate potential impacts (e.g. noise or odour associated with yards, feed troughs, or loading/ transport facilities). Though it is noted via consultation that a yard may be established around 100 m northwest of the development northwest corner. The separation buffer will also include a perimeter road reserve of 18 m wide and dwelling setback requirements that would result in houses being setback an additional 6 m (resulting in an overall dwelling setback of around at least 56 m) from the immediate western boundary/ interface. Given this, where people will live and recreate outside of their houses (in their rear yards) will be more than 50 m from the grazing land boundary interface, providing reasonable separation. The vegetated buffer would provide an additional mitigating element and result in a buffer and vegetated screen to reasonably minimise the potential for conflict with adjoining current, and potential future, activities. In this context, this is an acceptable interface management response.

It is noted that the proposed development is to be staged and that risk would generally decrease with corresponding increased separation. The main conflict risk to the west is therefore associated with residential lots in proximity to the boundary, hence the inclusion of a 50 m buffer. On this basis, and given Stages 1A, 1B, 2 and 3 (as shown in Figure 1.1) are setback a minimum of approximately 220 m from the western boundary, implementation of the vegetated element in the western 50 m setback buffer during Stage 4 is considered acceptable as the other development stages are well separated from this boundary interface. It has been advised by the proponent that this staged approach would also assist to ensure that the civil works, such as construction of the western perimeter road and associated batters, can be effectively coordinated with successful establishment of the vegetation plantings. However, it is noted that the vegetated buffer element once established, would complement the development more broadly at completion.

- The land east of James Creek Road (within around 250 m) does not appear to be used for intensive agriculture. Cattle grazing and ancillary activities have occurred historically and are currently present. This is generally low impact, potentially moderate at worst due to the presence of small stockyard/ loading infrastructure setback from James Creek Road, and possible pasture/ weed management. This is considered acceptable given the 50 m buffer/ setback incorporated into the development site and the 23 m wide road reserve. For comparison purposes, the Lismore DCP recommends that residential dwellings and other incompatible land use sites adjoining grazing land should have a minimum 50 m setback from cattle yards, shearing sheds, stock transporting infrastructure and other intensively used facilities ancillary to grazing activities. This would be achieved and exceeded. Whilst the Handbook recommends a buffer of 200 m from stockyards, this is related to more commercial or intensively used yards, rather than small scale ancillary grazing infrastructure that is periodically used, hence the Lismore DCP is a reasonable guide in this instance and justifies the arrangement. The same can be said for the proposed yard 100 m northwest of the site advised during consultation. Overall, the setback separation from the eastern interface to residential lots exceeds the 50 m grazing buffer and is complemented with some present roadside vegetation and a comprehensive soft landscaping/ planting strategy along the development site frontage. This would be sufficient to effectively reduce potential impacts of adjoining grazing activities on residential properties, including periodic pasture management and the intermittent use of ancillary farm/ stock infrastructure that could periodically concentrate some potential impacts (e.g. noise or odour associated with cattle loading facilities and feed troughs). It is also noted that the presence of James Creek Road in between the properties would further reduce the perception of potential agricultural activity due to noise associated with traffic movements.

- The strategic, local, and site-specific circumstances justify development of the land for residential purposes and whilst there are some active rural/ agricultural interfaces, those nearby are generally limited to grazing and land management activities. These are not considered significant risks, nor does the immediate adjoining land represent significant or protected farmland, or widespread/ intensive agricultural activity. Therefore, the activity that is present at the relevant interfaces is considered manageable.

Overall, the identified potential risks are generally low to moderate and can be reasonably managed with buffers to reduce risk to an acceptable level. This LUCRA has demonstrated that subject to the incorporation of buffers, proposed soft landscaping, and recommended vegetation screening and proposed boundary fencing, the proposed development would be acceptable, and is not expected to increase, substantially alter, or likely cause, unacceptable or significant land use conflict. Some limited risk associated with immediately adjoining grazing and farming activities is present. However, the establishment of a 50 m setback within the development site, to all rural land (over 70+ m to the east including the road reserve), combined with an integrated vegetated screen to the west and planting to the north and east, would help ameliorate the risk to an acceptable level. Stormwater and traffic management, which are required as part of the normal DA process, would be subject to

engineering design solutions and specialist assessments have been prepared to demonstrate satisfactory outcomes.

The Proposal therefore is consistent with the intent and relevant objectives of the Handbook and reference material.

It is noted that a number of factors, but not limited to, have led to this conclusion, including:

- Low to moderate intensity cattle grazing generally presents low potential risk of conflict with such activities generally tolerable even though they can be subjective, noting that future residents should recognise they are purchasing in a broader rural context.
- Nearby agricultural spraying is done periodically by tractor or vehicle via a boom or spot/ targeted spraying. Given the use of ground pasture/weed chemical application or targeted application it is assumed that spray drift would generally be limited.
- Very fine or fine droplets pose the highest risk of spray drift; being the main factor for controlling drift potential. The higher droplets are released, the greater potential for drift. Given the adjacent land use undertake periodic use of ground pasture/weed application and consequently the relatively low height at which spray is released the risk of spray drift would be reduced (notwithstanding occasional higher targeted weed spraying).
- Noise associated with agricultural activity which may lead to potential land use conflict in the locality would be intermittent background noise from animals, tractors and other machinery.
- Slashing and boundary maintenance would be undertaken responsibly, with regard for farm health and safety practices.

Recommendations:
The arrangements of setbacks/ separation buffers between the proposed lots and adjacent farming/ grazing activity are considered acceptable, subject to inclusion of a minimum 20 metre wide planted/ vegetated buffer established and maintained along the western and northern boundary interface (within the development site, and accounting for the stormwater basin footprints where planting in/around this area may need to be adapted to ensure appropriate stormwater basin design/function).

All boundaries to be suitably fenced and regard for the most effective/ appropriate treatment be given during detailed design. Common boundary fence treatments to the north and west adjoining rural properties should be discussed and mutually agreed with the respective adjoining landowners (and where necessary Council).

The western and northern vegetated buffers are to be generally consistent with the following principles/ criteria (adapted from *Planning Guidelines: Separation Agricultural and Residentials Land Uses* – The State of Queensland, Department of Natural Resources 1997 and Nambucca (Table F2) Development Control Plan):

- During construction of Stage 2 and 3, establish a minimum 20 m wide planted/ vegetated buffer along (within) the northern boundary of the development site (the minimum width of a vegetation buffer is that of the canopy at maturity).
- During construction of Stage 4, establish a minimum 20 m wide planted/ vegetated buffer along (within) the western boundary of the development site (the minimum width of a vegetation buffer is that of the canopy at maturity).
- The northern and western vegetated buffers should not be used/provide for formal public open space or recreation purposes, including informal paths through the vegetation. The landscape design plans should be amended accordingly via conditions of consent to remove any such informal paths from these areas.
- Vegetation planting needs to commence early in the development process, noting vegetation takes time to establish and mature. Management of this vegetation is to be implemented to ensure survival and effective establishment.

- Contain random plantings of a variety of tree and shrub species of differing growth habits and mature heights at spacings of 4–5 m for a minimum width of 20 m (e.g. ground covers, low, mid-storey, and canopy species, fast growing pioneers and slower growing species) – refer to Lismore (Chapter 11) and Nambucca (Table F2) Council Development Control Plans for guides to buffer planting species.
- Include a diversity of species, including those with long, thin and rough foliage.
- Provide a permeable barrier which allows air to pass through the buffer. A porosity of 0.5 is acceptable (approximately 50% of the screen should be air space).
- Foliage is to achieve reasonable coverage from the base to the crown.
- A mixture of fast-growing pioneer species and slower growing, longer-lived species should be used.
- Trees up to at least 10 m in height at maturity are to be included.
- Does not compromise Asset Protection Zones or conflict with the requirements of *Planning for Bushfire Protection 2019*. This includes, but is not limited to, avoidance of tree canopy overhang (accounting for growth to/ at maturity) of the area that is to be maintained to the standard of an Inner Protection Area, including residential property boundaries and perimeter roads.

A detailed landscape plan, prepared by a suitably qualified person, is to generally be in accordance with this recommendation and accompany the construction certificate application.

References

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

Factsheet: Land Use Conflict Risk Assessment Guide, 2011. NSW Government Department of Primary Industries.

Planning Guidelines: Separating Agricultural and Residentials Land Uses, 1997. The State of Queensland, Department of Natural Resources.

Primefact: Buffer Zones to Reduce Land Use Conflict with Agriculture, 2018. NSW Government Department of Primary Industries.

Copyright and Usage

Appendix A

Copy of Consultation Letter and Distribution

21 March 2024
Ref No: 3204-1152

Dear Occupier

Land Use Conflict Risk Assessment Consultation – Residential Subdivision of Lot 104 DP 751388 James Creek Road, James Creek

GeoLINK Consulting has been engaged by MPD Investments to prepare a revised Land Use Conflict Risk Assessment (LUCRA) to support a revised development application (DA) for proposed residential subdivision at Lot 104 DP 751388 James Creek Road, James Creek within the Clarence Valley Local Government Area (LGA). Some of the feedback received as part of the original DA has been taken on board and a copy of the revised plan of subdivision/landscape plan is attached. Changes include a reduced lot yield of 290 lots and 50 metre buffers for all boundaries to rurally zoned land.

A LUCRA is a document that looks at the residential development proposed on Lot 104 and considers and assesses the potential for land use conflict in the context of surrounding rural zonings and associated agricultural land uses.

The LUCRA then recommends any necessary management strategies to reduce/ minimise any potential conflict between rural and residential land uses. It should be noted that the LUCRA is only one component of the DA, with a particular focus on potential rural land use conflict, and therefore it does not address all potential matters of concern related to the proposed development and should be read in conjunction with the entire DA documentation when publicly available.

GeoLINK would like to talk with you as a nearby landowner/occupier about the revised LUCRA, including any particular land use conflict concerns you may have in relation to the proposed development and associated rural/agricultural activities you may conduct in proximity.

If you would like to discuss or provide comment, please contact me on 0401 198 773 or email jsickinger@geolink.net.au before close of business on 28th March 2024.

Yours sincerely
GeoLINK

Jacob Sickinger
Senior Environmental Planner

Attach: Revised Plan of Subdivision/Landscape Plan

2.1 Landscape Masterplan

LEGEND

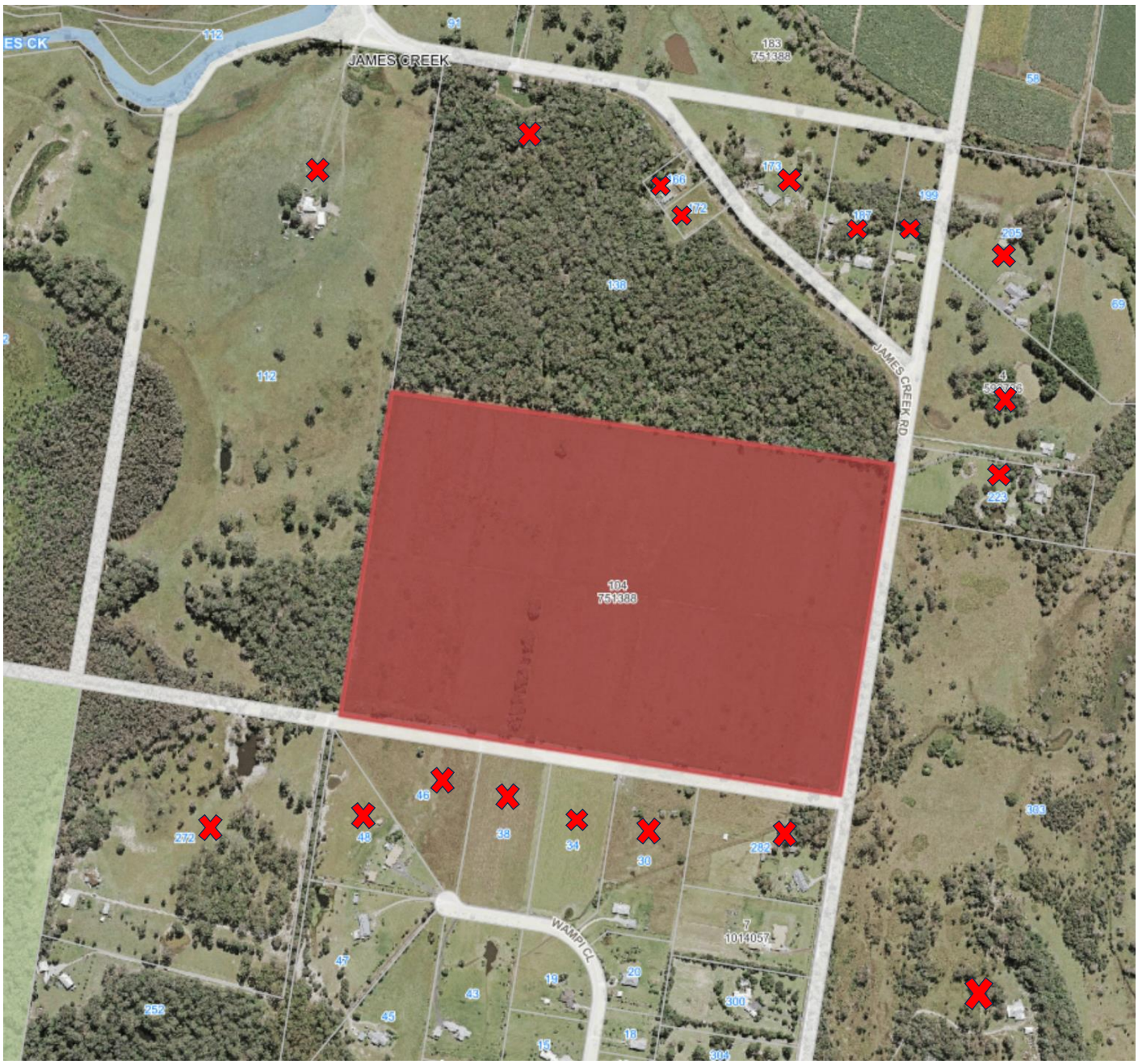
1. Entry boulevard
2. Village Green and Playground
3. Northeast park & basin
4. Southeast park & basin
5. Perimeter community loop for bike & pedestrian recreation
6. Pedestrian linkage between lots. 1500mm high pool fence to adjacent lots
7. Entry Park with Community Facilities
8. Planting batter to Austons Lane
9. Existing trees to be retained
10. Fencing on boundary
11. Feature fencing on road frontage
12. Informal path around basins
13. Landscape planning in this area should be to the requirements in accordance with the Planning for Bushfire Protection (2019 Appendix A section 4.1.1)

N

0 50 100 150M

SCALE 1:2500 @ A3

James Creek subdivision - property occupiers to be letter box dropped consultation letters		Date Dropped
Propsoed site: Lot 104 / DP751388 James Creek Road, James Creek		
Address to receive letter	**Receipient**	
112 James Creek Road, James Creek 2463	Occupier	21/03/2024
138 James Creek Road, James Creek 2463	Occupier	21/03/2024
166 James Creek Road, James Creek 2463	Occupier	21/03/2024
172 James Creek Road, James Creek 2463	Occupier	21/03/2024
173 James Creek Road, James Creek 2463	Occupier	21/03/2024
187 James Creek Road, James Creek 2463	Occupier	21/03/2024
199 James Creek Road, James Creek 2463	Occupier	21/03/2024
205 James Creek Road, James Creek 2463	Occupier	21/03/2024
217 James Creek Road, James Creek 2463	Occupier	21/03/2024
223 James Creek Road, James Creek 2463	Occupier	21/03/2024
303 James Creek Road, James Creek 2463	Occupier	21/03/2024
282 James Creek Road, James Creek 2463	Occupier	21/03/2024
272 James Creek Road, James Creek 2463	Occupier	21/03/2024
30 Wampi Close, James Creek 2463	Occupier	21/03/2024
34 Wampi Close, James Creek 2463	Occupier	21/03/2024
38 Wampi Close, James Creek 2463	Occupier	21/03/2024
46 Wampi Close, James Creek 2463	Occupier	21/03/2024
48 Wampi Close, James Creek 2463	Occupier	21/03/2024



Appendix B

Consultation File Note and Written Responses

A letter box drop inviting neighbouring properties to call or email to discuss agricultural practices and potential rural land conflict was undertaken on 21 March 2024 by GeoLINK.

A number of written responses were received and have been included in this appendix. Phone calls were also undertaken by Jacob Sickinger of GeoLINK, as summarised in the following table.

Neighbouring location/contact	File Note of Phone Call
217 James Creek Road	18/03/2024 ■ Concern about moving cattle along James Creek Road (currently hold licence to do this) and traffic impact / safety and speed limit. ■ Run approximately 30 cattle and 30 calves. ■ Concern about water runoff from development and increased wetting making land unsuitable in times of flood or heavy rain. ■ Potential concern over contamination and watering hole. ■ Concern that domestic dogs could cause issues or be susceptible to baiting that occurs on rural land. ■ Undertake weed control such as slashing and spraying weeds along the northern boundary (bush block) and concern of pedestrian paths or recreation areas occur in buffer to this boundary due to spray drift and or projectiles.
112 James Creek Road	27/03/2024 ■ Run cattle on 112 James Creek Road (west of the site) and own cropping land further to the east (beyond 303 James Creek Road – i.e. 400 m away). ■ Mentioned that their cattle are generally fairly quiet. ■ Mentioned paths/ parks in the buffer area are not considered appropriate. ■ Concern about the density of the development in otherwise rural area. ■ Concern about western buffer that appears to be too short on the landscape plan and should extend for the full length of the boundary. ■ Undertake spraying as part of land management (refer to written submissions). ■ Concern about moving and loading stock on James Creek Road and concern about increase traffic and safety (people don't slow down/pay attention to stock zone signs); believe speed limit should be reduced to 60 km/ h. ■ Concern about trespass and suitable boundary fencing (prefer solid fencing/ barrier which may also help with noise and spray. ■ Concern about stormwater increase/runoff and worse wetting.
138 James Creek Road	25/03/2024 ■ Short call to follow up written comments received via email. ■ They advised their email mostly covers their concerns related to the LUCRA. ■ Undertake some maintenance of boundary tracks on the bush block, generally on a regular basis but is influenced by seasons/ vegetation growth.

	■ Commented on the need for an effective type of boundary fence to prevent people and pets entering property. ■ Commented that their land is zoned rural and needs to be considered as such. GeoLINK acknowleged this, however noted it is heavily forested.
272 James Creek Road	25/03/2024 ■ Runs up to 7-8 head of cattle, plus looking to increase to around 15 through agistment. ■ Concern about water discharge to dam and water for cattle. ■ Concern about flooding and discharge/runoff into their property from development site and increase in water. ■ Undertakes some slashing and limited spraying. ■ GeoLINK referred them to the stormwater assessment and offered for them to speak with the relevant engineer about broader stormwater and flood impacts.
282 James Creek Road	25/03/2024 ■ Did not mention any current farming activity occurs. ■ Question about what the stormwater modelling is based on and doesn't agree that 1:100 is adequate anymore. ■ Question about the influence on stormwater has on downstream rural land. ■ Flooding concern and higher peak flows. ■ GeoLINK referred them to the stormwater assessment and offered for them to speak with the relevant engineer about broader stormwater and flood impacts. ■ Why doesn't the development have a buffer to the south as per a pervious concept illustration shown at the time of rezoning? Thinks it should have a 50 m buffer to the south. GeoLINK advised that the interface and risk to the R5 Large Lot Residential zoned land is different to the rurally zoned land and therefore a buffer is not necessary to the south (noting the lane provides separation also).
Representative on behalf of the James Creek Residents Group	25/03/2024 ■ GeoLINK called in response to the letter/ email received to clarify scope of the consultation is related to the LUCRA only and that intent is to speak to individual property owners about their agricultural land use practices and any specific concerns. ■ Letter gave seven (7) days to make contact to discuss or organise a time to discuss the LUCRA. This is also separate from the council advertising/ exhibition of the DA which would provide further opportunity.
199 James Creek Road	Written comments provided on 26 March 2024. Follow up phone call on 10/04/2024 raised the following: ■ Lack of consultation ■ Concern that advertising started immediately after LUCRA consultation period. GeoLINK clarified these are separate matters. Council was informed of the LUCRA consultation and determined when to advise the DA. A revised LUCRA was being prepared following that specific consultation by GeoLINK. ■ Buffer should extent to all western boundary ■ Questions about future of balance lot ■ Loading of cattle on James Creek Road opposite entry and child car causing traffic access/safety concerns ■ Density too high ■ Stormwater and questions effectiveness of basins.

Jacob Sickinger
Senior Environmental Planner – Geolink
jsickinger@geolink.net.au

26 March 2024

Re: LUCRA Response Lot 104 James Creek Road

Dear Jacob,

Dean and I are owners of the adjoining farmland to the west and 400m to the east of the proposed development.

We received your letter regarding the revised LUCRA, I have also read the LUCRA dated 23rd November 2023 and we feel that the changes that have been put into place are very minor.

In your letter, you state "changes include a reduced lot yield of 290 lots and 50m buffers to all boundaries to rural zoned land". We believe the lot yield has definitely not been reduced. The density per hectare is similar to the previous DA (with inclusion of the balance lot). You've simply reduced the lot sizes to squish more into a smaller area.

"The buffer to the western interface should be complemented and enhanced by implementation of a vegetated element/screen" (LUCRA, p 35). "… and a specific minimum 20m wide planted/vegetated buffer established and maintained along the western boundary within the development site" (LUCRA, p 38). There is no 20m vegetated/element screen on the western boundary of the balance block. There are two rows of lots in the balance area that are open to our farming activities. How can this pass a LUCRA, when they are fully exposed to odour, pesticides, dust, smoke and particulates.

The Statement of Environmental Effects (p 6) denotes that key changes should include "a transition of density with larger lots (minimum 600m2) on the periphery of the subdivision". Enclosure 3 (November, 2023, p 4) shows that majority of the blocks running along the perimeter of the balance lot are approximately 500m2 or less. We do not feel that this has not been appropriately addressed as these blocks also run along the perimeter of the proposed subdivision.

Separation areas are to separate rural activities from residential – to enable the LUCRA assessment to pass – for spray drift, smoke, odour, etc. How can this pass a LUCRA with walking paths, markets, birthdays, meetings, gatherings, basins and roads, all within the 50m separation areas. The paths, etc are not even included in the LUCRA assessment. How is this accurate? We believe the 50m separation area should be "no people" areas, otherwise how is this separating farming activities from residential?

"The arrangement is also acceptable given the lack of farm infrastructure in this location that could otherwise potentially concentrate potential impacts (e.g. noise, odour associated with yards, feed, troughs, or loading transporting facilities" (LUCRA, p 36). We are currently in the process of moving our stockyard to the top of the hill as James Creek Road will become way too busy for us to load stock onto trucks where our yard is

currently. It's new location is approximately 100m northwest of the proposed subdivision. This will create all of the aforementioned "potential impacts".

"Given the adjacent land use undertakes periodic use of ground pasture/weed application and consequently the relatively low height at which spray is released the risk of spray drift would be reduced" (LUCRA, p 37). As we did state in our previous submissions (which has not been taken into account), we do use pressurised handgun off a tractor to spray cockspurs, lantana, regrowth (can be up to 3m high). This is not a ground application and does pose higher risk of spray drift.

Last winter, we grew an amazing crop of oats on our cattle property and strip grazed it off for our cattle (could also be baled). We also have plans to grow soybeans, as we already do so on our farms to the east of the proposed development. We do have plans to plant more macadamias as well. Macadamias are a high conflict risk – as mowing takes place most days, harvesting in winter once a week, lots of chemical use which is blowing into the air. There is definitely potential to grow crops or macadamia trees or even feed lot for cattle on the adjoining western boundary, so substantial buffers should be put into place to mitigate conflict.

"New residential development will generate increased traffic movements that may impact primary industry traffic access and movement if appropriate road infrastructure is not provisioned" (LUCRA, p 23). The only plan is to upgrade the road at site frontage. Drivers do get very impatient with slow moving tractors, etc on the roads and overtake in dangerous areas. We do already move our tractors on South Bank Road and James Creek Road and have had numerous close calls.

As per my previous submissions, we regularly move cattle along James Creek Road as we lease a block up the road. Our parents and sister's farms are further along James Creek Road which we move cattle between on horseback with dogs. We feel that this has yet again not been considered within your LUCRA. How will we still be able to safely continue these farming practices? This new subdivision is not allowed to impact on our current farming practices. All roads should be upgraded to be able to handle increased traffic from the new proposed subdivision.

The stormwater continues to be a massive concern for us. Even though a balance lot has been created in the north-western corner, all other three basins affect our farming practices. Water runoff, volume and frequency will have huge impacts on our livelihood. As Geolink state in their Stormwater Enclosure 7 (p 2), volume and frequency requirements "is almost impossible to implement … on a previously undeveloped site" and "cannot be practically achieved" (p 11). Their stormwater options included in Enclosure 7 "are not sufficient to reduce stormwater run-off volumes to pre-development levels". How can this stormwater design be acceptable? Runoff behaviour is not acceptable.

Whilst the Stormwater Enclosure denotes the volumes and frequency as unachievable, the LUCRA (p 27) states "run-on and seepage on adjoining farmland will be negligible" and rates the potential conflict as low. This is definitely not considered low to us; we would class it as a high risk. Reason being stormwater runoff volume and frequency cannot be reduced or maintained to predevelopment, with significant impacts to our livelihood by creating wet, soggy and unusable areas.

When discussing the reduction/maintenance of stormwater runoff volumes and frequency, GeoLink state it "is rarely, if ever, enforced" (Stormwater Enclosure 7, p 2). This simply seeks to avoid the requirements of the law.

GeoLink state that "the key constraint for watercourses and channels is the flow rate, not the volume or frequency runoff" (Stormwater Enclosure 7, p 12) This runoff onto our farming practices will be substantial and considerably harmful to our business. Volume and frequency certainly a key constraint.

"The residential estate will be fenced with dog-proof fencing along the west, north and south boundaries" with a chain-mesh fence (LUCRA, p 34). Who will maintain this fence? For example, at Causley Farm and adjoining farmland, they had trespassers cutting the wires of fences so they could ride their motorbikes and also dump lounges and rubbish onto the farmland. Maybe a high 10-12ft wall (solid fence – like you see along the highway and edge of estates) could be the solution. No visual temptation for dogs to interfere with livestock, dumping of rubbish, trespassing, etc.

Avoiding dispute and conflict in the first instance should be priority. When conflict arises, who sorts it out?

Our concerns are unchanged from our previous submissions. As previously stated, any changes that have been made are only minor. These are only a portion of our concerns. Other include biosecurity, heat bank, light pollutions, effects to wetlands & Yaegl reserve.

Density and buffers continue to be unacceptable. This is a high-density development, dumped in the middle of a rural area. We are very concerned for our future farming practises.

Thank you for taking the time to consider our concerns. Please feel free to contact us via mobile or email.

Kind regards,

[redacted]

[redacted]

Subject: Land Use Conflict Risk Assessment Consultation[LUCRA]

Lot 104 DP 751388 James Creek Road, James Creek, NSW 2463

Dear Jacob,

Thank you for the opportunity to comment on the LUCRA Assessment you are doing for a revised DA proposed residential subdivision associated with the above land.

I am aware as are others that you have contacted that the primary purpose of your engagement by MPD Investments is impact on rural land especially agricultural production and lifestyle.

I own **rural** residential land on the northern side of the proposed development and have lived in the James Creek area for over 30 years. I have witnessed many changes in this time none more capable of conflict than this proposed inappropriate style of development.

You say that the revised plan has "taken on board some of the feedback received". From where I sit I see little evidence to support this statement. I am aware that you are not concerned about some of the bigger picture implications of the development such as the continued high density of dwellings. However the very nature of the development has serious implications for conflict for all rural landowners in the area.

Specifically, the 50 metre buffers are not buffers at all. There are roads, paths, bio-basins and buildings in these so called buffer areas. These areas are by nature going to be active areas. Roads and pathways need to be built. Bio-basins need to be engineered and maintained. There are community facilities planned within 50 metres of agricultural land on the eastern side. There is no buffer at all on the southern side. Furthermore, the latest unpublished version I have has perimeter hard wire cross fencing of around 5 foot high. How is this not a recipe for conflict with neighbouring property owners let alone the lack of effective transition to other uses of the land. I suggest at the very least an appropriate, proper transition zone be established between this proposed subdivision and surrounding land.

We can also anticipate conflict arising from increased run off from bio-basins onto rural land at the south west, south east and north east corners of the property. It defies logic that you can remove topsoil and vegetation, replace it with buildings and other hard surfaces, over 90% of the land and not have additional surface water flowing onto neighbouring property. We have yet to see examples of bio-basins working successfully in this type of environment.

Although it is not your brief I cannot help but comment on your "reduced yield of 290 lots". When one considers the type of dwellings planned for some of those lots then the density will be much the same as the previous DA. The capacity for trouble with lack of infrastructure remain.

In summary, I see the capacity for conflict with this particular DA as being no different to the previous model. There is the potential for negative impact on rural land and indeed the whole James Creek neighbourhood.

Thank you again for the opportunity to comment. Hopefully it is not just a case of ticking boxes.

[redacted] Ph[redacted]

26th March 2024

On behalf of the James Creek Residents Group

Contact Number: [redacted]

Contact Email: [redacted]

Dear Jacob,

Thank you for the letter box drop containing LUCRA information from Geolink.

We appreciate your efforts to establish consultation between all stakeholders. Your letter indicates that Geolink would like to talk with us: we would also like the opportunity to talk with Geolink. This initiative is a positive step forward for all parties.

It must be noted, however, that we are extremely disappointed at the short consultation period (4 days) provided in the letter. Most recipients did not receive their letters until after work on the Thursday evening. This only provided Friday for an opportunity to attempt to organise a time suitable for those who wish to be involved in the discussions. There are a number of residents –especially those who neighbour the subdivision - who would wish to be involved. As the majority of residents work, set appointments for the week are locked in and with commitments usual with the week preceding Easter; we have found it quite difficult to coordinate, your request.

However, with some members altering shifts and appointment times : we have managed to commit to Tuesday 26th March after 3.30pm : probably meeting at Austens Lane. We hope this is suitable to you. If there are any problems , we would suggest you extend the consultation period and meet after Easter.

Yours faithfully,

[redacted] - on behalf of the James Creek Residents Group.

From: [redacted]
To: Jacob Sickinger
Subject: LUCRA response lot 104 James creek road
Date: Saturday, 23 March 2024 11:07:43 AM

Hi Jacob,

I received your letter yesterday regarding the LUCRA for lot 104 James Creek Road, I am an owner of the block directly to the North of lot 104.

I have only had the opportunity for a very quick look at the new development proposal for our neighbouring lot and I have to say that I see no serious regard for land use conflict improvement since the previous plans.

Obviously the density of the whole development will have an impact, and while I am aware that is not the main focus of the LUCRA risk report. The density has a large impact on neighbours, and the total number of blocks has not truly been reduced when you take into account the blank section on the north west of the landscape masterplan.

I understand that you have been employed to “tick the box” of updating the developers LUCRA risk document. I am glad that it is being updated because we are completely disregarded in the current document. While we are not currently utilizing our property to its full potential, we are gathering financial capital and aim to make money off our Rural zoned land in the future. Whether or not our property remains vegetated, livestock would still be able to create noise and smells right to the edges of our property, as can farm vehicles, pumps, firearms etc.

We need you to look at the future potential uses of our land, not just what is currently there. While we have only owned our property for a few years,we have run cattle, sprayed weeds, used farm machinery during this time.

I do not accept that what is included in 2.1 Landscape Masterplan is an appropriate buffer. It is designed to encourage people to use the land adjoining ours for example the path and road included within the 50m from our fence line.

A non-vegetated buffer, which is what it would ultimately end up being to meet bushfire regulations, is not appropriate to reduce the negative impacts of spraying, and livestock smells noises etc. A path through the buffer is encouraging use of the greenspace (which is needed, due to the very small blocks proposed). This is encouraging people to use what will then not be any buffer from normal farming activities on our block.

Even focusing on our current land-use, we need to slash and spray for overgrowing weeds, along our adjoining boundary. What happens when we need to spray that boundary and someone is using that path? What happens if debris from the slasher injures someone walking on that path?

Another big concern of ours is the risk from trespass on our property. I have raised this issue within my previous submissions about this development and it has not been addressed. We are concerned about the impact from people and pets on our property and the wildlife including littering, and biosecurity risks.

The unknown impact of the stormwater flows and water availability are also a concern. Our small dam is fed with water that begins flowing from lot 104. Water availability in times of drought is concerning as is excess waterflow preventing our ability to move machinery during wet times. This is not even beginning to mention the potential for pollution from any nuisance water.

It is impossible for me to raise all of my concerns towards this development as the included landscape masterplan has a big blank section that includes approximately 1 third of our adjoining boundary.

We also hold concerns to how the heat sink of a concrete “village” and light pollution will affect our land, farming and wildlife.

So just to reiterate, my concerns remain largely unchanged from the previous submissions. The buffers are a joke. The conflicts between our property and the development lot will be many and it is clear that actions are only being taken by the developer to tick boxes, not to try and improve the development for both the people that will be living there or the neighbouring properties. Please keep in mind this is merely an overview of our concerns, not in anyway all encompassing.

Please feel free to contact me if you wish for any further comment,
[redacted]
[redacted]
I look forward seeing the solutions that you come up with to address these issues.
Kind Regards,
[redacted]

Wed 27/03/2024 12:10 PM

Hi Jacob,

Im a 4th generation farmer from 217 James creek road. My farm is 45 meters north east of the proposed subdivision and is classified as
'state significant farmland'.
I run 30 Angus cows with calves, plus 1 bull.
I also share farm my parents 80 acre property at 135 James Creek Road which is to the north of the proposed estate.

I regularly move cattle along James Creek Road by stock horse & working dogs between our family farms 112, 135 & 217 James Creek Rd. We also may need to move cows, calves & bulls along James Creek Rd to use the stockyards at Alan Adamson's farm on James Creek rd,
(across the road from the proposed coffee shop)if my stockyards are inaccessible to the trucks for transportation to sales due to wet weather. This has been done for over 100 years by my Great grandparents, grandparents, parents, & now my siblings & myself & my children.

The effect of increased traffic on the movement of my cattle has not been addressed by the developer. We are the holders of a routine stock movement permit.
so I believe this to be an important factor.

I use the bush paddock on the North side of the proposal for my cattle. I slash the fence line & use chemicals to keep the lantana & weeds under control. I'm concerned that the buffer has walking paths in it & someone could be injured by my farming practices.

I'm concerned about my everyday farming practices causing conflict with new residents,They include, shooting guns, slashing, spraying, fertilising, drenching cattle, marking calves, weaning calves, selling calves.all this can be very noisy at times.

Im concerned about more domestic dogs that could attack my cows & calves.Also cats & dogs will have a damaging effect on our wild life.

As a property owner on the Eastern boundary the storm water run off from the proposed estate will run through my property before making its way out Palmers Channel to The Clarence River. Over the past several years I have worked with an agronomist to improve my soil & grazing pastures. I have spent countless hours & money implementing their recommendations. I am concerned that the extra runoff from the proposed estate & the extra time the lower part of my property spends under water during high rain periods will effect my soils nutrient loss in a negative way. im

concerned that excess water & pollution will contaminate my property including my watering holes, dams and pastures.

Im concerned about people trespassing onto my property as I have unfenced dams, there is a chance of drowning.

No LUCRA report was done on any of the farming properties on the eastern side of the development, including myself & Alan Adamson. I believe this to be an important factor that requires further negotiation with the developer.

I believe my request for a 50 meter fully vegetated buffer with no parks, no walkways, no coffee shops etc have not been adequately addressed. This would help minimise LAND USE CONFLICT & work well as a wild life corridor, as there is often 50 plus kangaroos grazing on the property that will be forced onto neighbouring cattle properties & road sides.

I feel this area is not suitable for the proposed housing development, considering there is valuable farming land on the east , west & north that will be affected. I look forward to a new & improved LUCRA, feel free to contact me.

Thank you.

[redacted]
217 James creek road, James creek.