



23 Hill End Road Caerleon 2850

January 2025

OVERVIEW

Atlas Environment and Planning have been commissioned by Ms S Baskerville to prepare a Land Use Conflict Risk Assessment (LUCRA) in support of the Planning Proposal:

Proponent – **Shirley Baskerville**
Subject Land – **“Balli High” 23 Hill End Road**
CAERLEON
Title – **Lot 1 DP706730**

Proposed site specific LEP amendment –
Amend RU1 Primary Production zoned land to R1
General Residential
Facilitate residential subdivision

The LUCRA method is a four-step assessment process undertaken as follows:

1. **Information Gathering** – The site geophysical characteristics, the nature of the development proposed, and the surrounding land uses are described.
2. **Risk Level Evaluation** - Each proposed activity is recorded, 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** – 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.

This LUCRA identifies the measures that have been incorporated into the development to mitigate the potential land use conflict which might arise from the proposal. These measures include:

1. Implement buffers - Fencing choices to be identified in the DA stage to consider the best choice to support buffers.
2. During construction appropriate mitigation measure are to be implemented to address management of stormwater and runoff.
3. Any planting in the buffer near the Highway to consider species choice for noise and dust mitigating properties.
4. Construction traffic management plan be prepared to address changes in traffic and including consideration of any farming needs.

Following the risk evaluation, ranking and rating step by step process a risk rating was determined, that the project exhibits and acceptable risk. This is because the identified potential conflict areas can be mitigated effectively with appropriate control and therefore results in a 'Low' likelihood of conflict and impact with the proposed control measures being suitable to manage potential land use conflict.

Key Reference

Department of Primary Industry (DPI) 2011, *Land Use Conflict Risk Assessment (LUCRA) Guide*, <<http://www.dpi.nsw.gov.au/land-and-water/land-use/lup/development-assessment2/lucra>>.

TABLE OF CONTENTS

STEP 1 - Information Gathering	4
The Subject Site	4
The Proposed Development	5
The Surrounding Land Use	7
The Land Use Conflict Experience to Date	8
Potential land use conflict	8
STEP 2 – Risk Level Evaluation	11
Risk Evaluation and Ranking	11
STEP 3 – Risk Reduction Management Strategies.....	11
STEP 4 – Record LUCRA Results – Recommendations	16

STEP 1 - Information Gathering

The Subject Site

The land known as "Balli High", 23 Hill End Road has frontage to the Castlereagh Highway and Hill End Road. The property is currently occupied with one main dwelling and associated shedding. The site has an operating Home Business, providing transport and delivery services. Held as one title, Lot 1 DP706730, the land is approx. 7.695ha in area. The property has also been associated with a horse arena and grazing.

The site adjoins serviced land zoned R1 General Residential referred to as the Caerleon Estate and has frontage to Knox Cr in this estate. Other RU1 Primary production zoned land occurs to the north (opposite side of Hill End Road), with RU4 Primary Production Small Lots zoned land to the north east (opposite side of Castlereagh Highway). The land is situated approx. 4.2km (5 mins) from the Mudgee Post Office. The eastern boundary is formed by the disused Wallerawang Gwabegar Railway line, zoned SP2 Rail Infrastructure Facilities.

The land has two existing driveway accesses from Hill End Road, with no access off the Highway or Knox Crescent frontage. The existing built structures are contained to approx. 1ha western area of the site as currently fenced, the remaining land is pasture with farm dam.

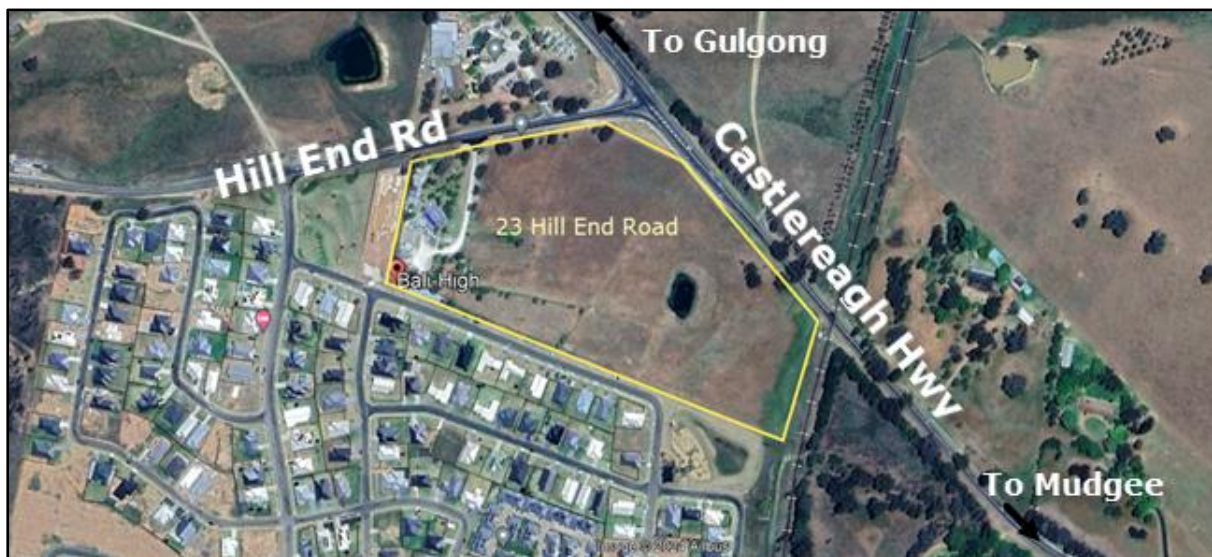


Figure 1 - Site Location (Source: Google Earth)

The Proposed Development

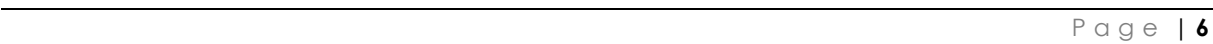
The site is subject to provisions of the Mid-Western Regional Local Environmental Plan 2012. It is proposed to rezone the subject land from RU1 Primary Production to R1 General Residential to enable the land to be developed for future housing opportunities.

The future development concept involves:

1. Phase 1 - The creation of two (2) Torrens title lots from the one (1) existing title (Lot 1 DP 706730). One vacant lot for future residential subdivision (Lot 2 = 6.72ha); and one lot to contain the existing dwelling and out buildings (Lot 1 = 9750m²). It is proposed that this first step to future subdivision does not require the connection to reticulated sewerage. The vacant Lot 2 could then be further developed.
2. Phase 2 - The development concept will be supported by a potential layout demonstrating future residential subdivision with new roads. Preliminary work towards identification of a future layout shows:
 - a. The concept Lot 1 is able to be subdivided to create 1 lot with existing dwelling, and 3 further vacant lots.
 - b. The concept Lot 2 is conducive to producing 41 vacant residential lots with new road, serviced and based on appropriate dwelling sites, boundary setbacks, suitability for buffers to existing infrastructure.

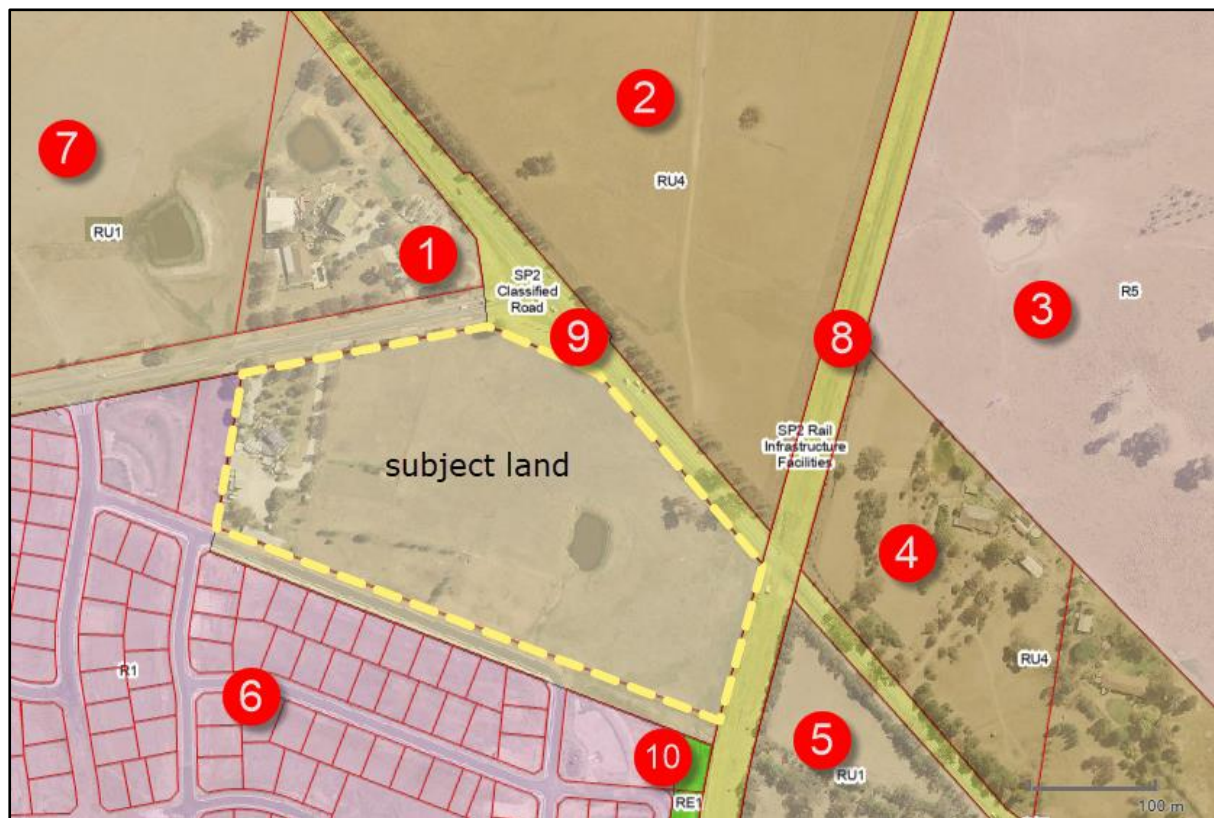
Potential subdivision requires site-specific mapping amendments to the Mid-Western Regional Local Environmental Plan 2012.

- ❖ The Mid-Western Regional Local Environmental Plan 2012 has partially migrated to digital mapping. An amendment to the **Land zoning** is proposed.
- ❖ An amendment to the Mid-Western Regional Local Environmental Plan 2012 **Lot Size Map** - Sheet LSZ_006 is required (proposed min lot size 600m²).



The Surrounding Land Use

The immediate surrounding land use is described below with current zoning highlighted (red lines depict property boundaries).



	Zoning	Description
1	RU1 Primary Production	Occupied land – dwelling, Honey Haven tourist facility with café and putt putt golf. Typical Operating hours are Mon- Sat, 9am to 4pm with reduced hours in school holidays.
2	RU4 Primary Production Small Lots	Approx 15.7ha vacant land grazing land use. Associated with a larger rural holding.
3	R5 Large Lot Residential	Approx 55ha vacant land – Approved for future 2ha residential subdivision with new road.
4	RU4 Primary Production Small Lots	Approx 4ha parcel occupied, rural lifestyle lot.
5	RU1 Primary Production	Approx 13.5ha grazing land with existing dwelling. Forms part of the area M21 identified in the future proposed residential land earmarked in the <i>Mudgee and Gulgong Urban Release Strategy 2023 Update</i> .
6	R1 General Residential	Developing Caerleon Estate - residential land with existing retirement village, with future stages to include mixed use zoned land. The R1 zoned area extends to the south connecting to other developed residential land in Mudgee at Fairydale Lane.
7	RU1 Primary Production	Approx 32ha of grazing land, occupied, dwelling and out buildings established. Minor watercourse with inline farm dams.
8	SP2 Rail Infrastructure Facilities	Land forming the disused Wallerawang Gwabegar Railway line, creating a linear barrier to adjoining occupied RU1 land.
9	SP2 Classified Road	The road corridor associated with the Castlereagh Highway (B55).
10	RE1 Public Recreation	Land following the rail corridor (approx. width 22m) forming a buffer to rail land and connection to drainage reserves with dual recreation and drainage purpose.

The Land Use Conflict Experience to Date

The experience to date has been that of little material concern raised due to existing land use conflicts. The site is separated by road corridors to most unrelated parcels. There are no known concerns or issues with the tourist -related land use (Honey Haven), particularly with hours of opening and visitor activity not causing land use conflict with neighbouring residential occupation or primary production.

In the experience of this site and in the context of the neighbouring Caerleon development, it is acknowledged that the extension of residential land use, will have similarities to the development of the Caerleon estate, similarly (surrounded by primary production and existing rural residential occupations). Issues that are noted, include:

- Neighbourhood noise and dust production during the construction phase of the Caerleon subdivision development. Attributed to earthmoving for road and drainage construction.
- Increase in traffic generally in construction and generally increased activity in the location which previously had one (1) occupant.

Potential land use conflict

Residential Interface

The proposed development to connect at the southern boundary with existing developed residential land, is considered compatible land use. Future development and construction periods would be addressed in a development application stage.

Rural Interface

The proposed development of an existing RU1 zoned 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. In this location it was identified that the surrounding lands were in multiple properties, with land also zoned RU4 Primary Production Small Lots. No intensive agriculture is carried out, and these lots are occupied and present a lifestyle option, with associated rural activities occurring. Due to the land ownership and development pattern, the potential for stock to be moved between paddocks affecting road corridors etc and slow moving farm/agricultural machinery and vehicles is low at this site.

Table 1: Typical conflicts that can occur between Agriculture/rural activities and nearby residential land use

Conflicts/Issues or concern	Common sources and causes
Noise	Dogs, general livestock noise. Equipment, pumps, plant, spray machines, transport related.
Odour and Dust	Soil disturbance and excavation. Excess/ concentrated manure.

Conflicts/Issues or concern	Common sources and causes
	Agricultural fertilisers and chemicals. Intensive animal industries. Management and application of effluent to pasture
Health concerns	Chemicals Spray drift
Water	Access. Pumping. Quantity. Runoff and pollution.
Smoke and ash	Burning off
Visual amenity	Large structures
Nuisance	Stray dogs Vandalism Trespass Noxious and Environmental weeds

Site -specific 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 barriers/buffers available, 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 proposals that have already occurred.

Residential Development / Buffer Distances- Reference buffer/separation distances to residential development:

- Grazing 50m
- Stockyards 200m
- Viticulture 200m.

Separation distances and buffers are achieved, and design aspects increase to further minimise potential for spray drift or future cropping in RU4 land. Adjacent grazing, pasture management, combined with a tourism focussed development established to the north and no stockyards- presents a low potential for conflict.

In summary:

Land use conflict to the north (locations 1 and 2 in map above) is limited by buffers created by road reserves. Hill End Road separates the Honey Haven land from the site. The more intensive use of this land for rural industry related will need to consider also the onsite tourist development and future intensification is unlikely. The Castlereagh Highway separates land that may reasonably be used for rural activities. To the north this separation by road reserve is approx. 60 to 80m at the closest boundary and included treelined property boundaries & in reserve land.

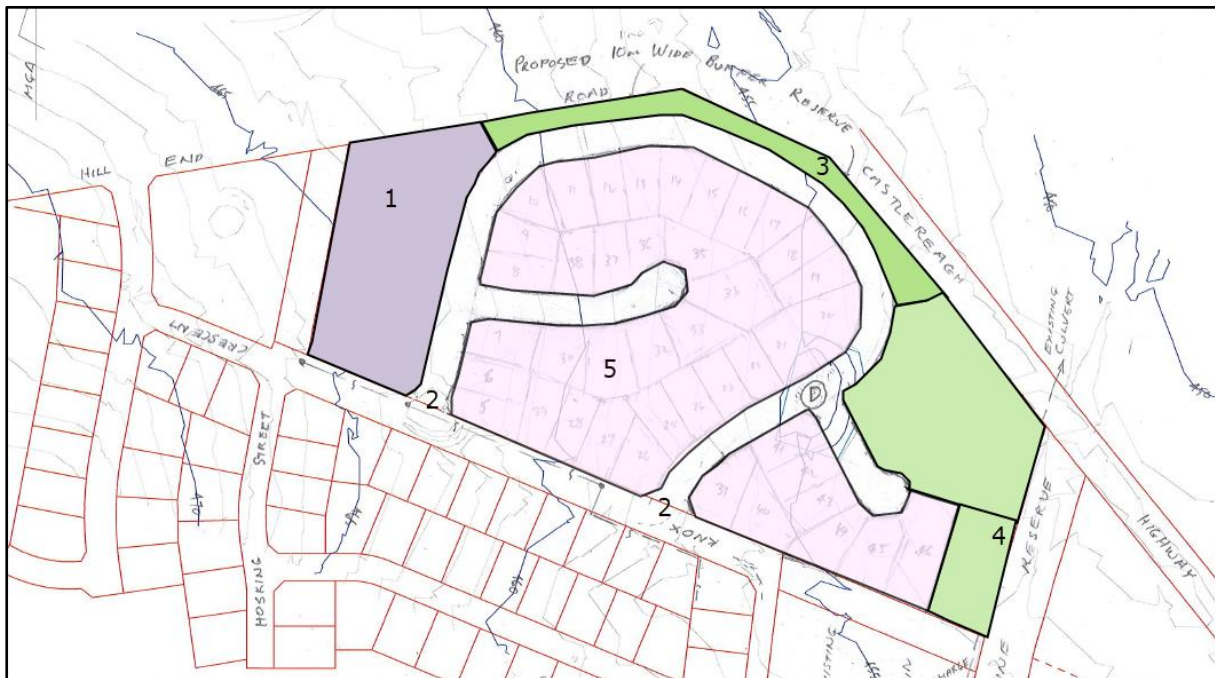
There is no notable rural land use conflict risk to the south, given the interface with a residential development.

The eastern interface does not present any immediate rural activity or high risk of conflict. The Railway land, Highway reserve form buffers. There is RU4 zoned land occurring however this would be more akin to pets and lifestyle/ hobby farm situations given the restrained size of lots (being about 4 ha).

The western boundary also interfaces with developed residential land, and associated drainage reserve. Currently the landowner would be carrying out periodic weed management and grazing of horses. The removal of conflicting site activities with existing residential land will also follow.

The consideration of the potential for land use conflict was addressed in the planning of the proposed development. Potential matters that were addressed by design options, are sketched in plan below, and include:

1. Existing residential occupation and structures – the layout separates the existing features from the main developable land with adequate buffers to structures, and no increase to traffic from existing driveways onto Hill End Road.
2. Road network - the introduction of additional traffic directly onto a main road was avoided through connection of new roads to existing local residential roads.
3. Road reserve buffer proposed to screen the development from the Highway and opportunity for mitigating any road noise and for landscaping.
4. Railway land – proposed buffer is included.
5. Compatible residential lots – design compatible with lot size and dimension to reduce conflict with existing developed residential lots.



STEP 2 – Risk Level Evaluation

Risk Evaluation and Ranking

Each likely activity is recorded in Table 2: Risk Evaluation - Identified Potential Conflict and Risk RankingTable 2 and an assessment of known land use conflict level is assigned accordingly. The ranking is given both before and after ameliorating measures are applied to mitigate the given activity impacts. The higher the risk level, the more attention it will require in order to reduce the ranking level. Risk rankings are derived from the risk ranking table (refer to Appendix A).

STEP 3 – Risk Reduction Management Strategies

The process of risk reduction aims to identify management strategies that affect the probability of an event occurring.

Table 2: Risk Evaluation - Identified Potential Conflict and Risk Ranking

Activity/ Feature	Identified Potential Conflict/ Comments	Risk Ranking	Management Strategy (method of control)	Revised Risk Ranking
Noise	Potential noise from livestock. Noise produced by gates, machinery (e.g. chainsaws, powertools, 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.	D3 =9 (acceptable)	Occasional livestock noise is not unreasonable and would generally be tolerable in this context. Likewise, noise from vehicles and machinery would be intermittent. The use of firearms is strictly regulated – licenced and training. No significant noise is expected, however common background farm noise would be intermittently	D4 =5 (acceptable)

Activity/ Feature	Identified Potential Conflict/ Comments	Risk Ranking	Management Strategy (method of control)	Revised Risk Ranking
	Considered unlikely in the setting with moderate consequence (neighbour disputes may occur).		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. Buffers are appropriate.	
Dust generation	Dust emissions can adversely affect residential amenity. Dry periods, land cultivation/ frequent machinery movements could result in conflict. Considered possible, with minor short-term impacts.	C4 =8 (acceptable)	Dust generation because 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. Surrounding rural residential lifestyle lots are unlikely to crop or deplete ground cover. Provision of a buffer to RU4 land with a landscaping component will be effective to reduce conflict. Consequence reduces to unlikely and managed as part of normal operations.	D4 =5 (acceptable)
Weed management – slashing along boundaries	Potential risk of projectiles from slashing if near to site. Considered rare occurrence, but may have major consequence with neighbours in dispute.	E2 =10 (acceptable)	Farmers and tractor/ slasher operators are required to follow work health and safety requirements. Likely that this occurrence may more likely be from Council maintenance on road side rather than farm related.	E2 =10 (acceptable)

Activity/ Feature	Identified Potential Conflict/ Comments	Risk Ranking	Management Strategy (method of control)	Revised Risk Ranking
			Fencing and buffer/separation in subdivision design to external boundaries is proposed. Risk remains acceptable and a rare probability.	
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. Fertiliser and weed control chemicals may have strong smells, even in low quantities. Considered possible but could be managed as part of normal operations, and separation distance to primary production land.	C4 =8 (acceptable)	The subdivision design and separation buffer distances achieved mitigate impacts. Also given the scale and intensity of farming activities in the location is low, the separation is acceptable measure. Neighbour disputes are unlikely as mitigated.	C5 =4 (acceptable)
Run off and erosion management during development construction	Potential for sediment laden or contaminated runoff and erosion if not properly managed. Considered as possible (could occur), with moderate consequence.	C3 =13 (unacceptable)	Sedimentation and erosion controls will be implemented for the construction phase of the development. Proper management reduces risk.	D4 =5 (acceptable)
Surface water changes and stormwater management from	Increase of impermeable surfaces and stormwater runoff. Need for appropriate integration and management of stormwater and avoidance of potential impacts to receiving environment and catchment.	C3 =13 (unacceptable)	The proposed layout includes basin for park and stormwater management. The design of the residential development would address stormwater management and drainage in accordance with	C4 =8 (acceptable)

Activity/ Feature	Identified Potential Conflict/ Comments	Risk Ranking	Management Strategy (method of control)	Revised Risk Ranking
proposed development	Considered possible, with moderate consequence.		accepted standards and Council's Development Control Plan.	
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, because of increased pollutants. Considered unlikely, with minor impact to community.	D5 =2 (acceptable)	Due to catchment this risk is unlikely. There are no adverse impacts expected given the topography of the land. Subdivision design phase to ensure the road drainage is also accounted for in the design.	D5 =2 (acceptable)
Rubbish	Potential for rubbish to disperse onto adjoining land from residential development. Considered possible ('I have heard it happening') and moderate consequence (neighbour disputes may occur).	C3 =13 (unacceptable)	The residential subdivision will be included in Council's waste collection service. In accordance with the Council's requirements and DCP, measures will be incorporated into the stormwater management system to capture litter and rubbish (such as gross pollutant traps).	D4 =5 (acceptable)
Spray drift	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-target areas. It is understood that spray drift would be limited, however use of chemical may also occur on railway land.	C3 =13 (unacceptable)	The associated industry specific guidelines apply, and chemical users are subject to workplace health and safety, and guidelines for the use and handling of agricultural chemicals (all landholders are required to incorporate reasonable and practicable measures to protect the environment in accordance with the POEO Act).	C4 =8 (acceptable)

Activity/ Feature	Identified Potential Conflict/ Comments	Risk Ranking	Management Strategy (method of control)	Revised Risk Ranking
	Considered possible with moderate consequences (ongoing management implications).		Buffers/separation measures proposed also mitigate against spray drift from RU1 and RU4 land.	
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). Considered possible with moderate consequence (may harm animals and cause neighbour dispute).	C3 =13 (unacceptable)	All residential lots/ rear yards would be securely fenced. There are Council policies for ownership of pets and associated responsibility (registration/ microchipping etc). Use of certain poisons will require notification to avoid accidental poisoning, and users must have training etc. Mitigated risk decreases to rare probability.	E3 =6 (acceptable)
Traffic and access	Potential conflicts between farm/ heavy vehicles and residential vehicular access. Considered possible but minor consequence.	C4 =8 (acceptable)	Local Land Services requirements: in a temporary stock zone, drivers must give way to stock and all other animals and any vehicle accompanying the stock, in the location the movement is unlikely. The current speed zone environment is suitable for the residential development, however during construction additional traffic management measures will likely be required. Construction traffic management plan.	C4 =8 (acceptable)

STEP 4 – Record LUCRA Results – Recommendations

The land use conflict risk assessment 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 RU1 and RU4 grazing and land/ pasture management activities on adjoining land, as well as similar activities but with a lesser risk profile to the north in the existing Honey Haven development. The site is not directly proximal to ongoing active farmland and associated rural activities, with separation occurring due to existing development, rail and road reserves.

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:

- Run off and erosion management during development construction
- Surface water changes and stormwater management from proposed development
- Rubbish
- Spray drift
- Domestic Animals.

Most of the above matters have been assessed in Table 2 as being manageable, with an acceptable residual risk, based on design outcomes and engineering requirements that would be required as part of the subdivision design and Proposal /mitigation techniques (i.e. to address relevant LEP and DCP provisions and standards).

Potential impacts from adjoining agricultural activities, such as noise, dust , weed management and odour were not considered high risk or unmanageable. The subdivision design and inherent buffers in the site location achieve adequate separation distances to mitigate potential impacts. Overall, the identified potential risks are generally low to moderate and can be reasonably managed with buffers to reduce risk to an acceptable level.

Recommendations

- Fencing choices to be identified in the DA stage to consider the best choice to support buffers.
- During construction appropriate mitigation measure are to be implemented to address management of stormwater and runoff.
- Any planting in the buffer near the Highway to consider species choice for noise and dust mitigating properties.

- Construction traffic management plan be prepared to address changes in traffic and including consideration of any farming needs.

The LUCRA is a tool, and other risks and mitigation measure may become apparent as the process of development is continued. At this planning proposal stage, this LUCRA has demonstrated that subject to the incorporation of noted mitigation measures, the proposed development would be acceptable, and is not expected to increase, substantially alter, or likely cause, unacceptable or significant land use conflict. It is aimed that this LUCRA be included in the planning proposal documentation and shared with design personnel, to increase the understanding of potential land use conflicts, to inform and complement development control and buffer requirements in the future.

Appendix A- Risk Ranking and Rating

Risk Ranking

The consequences (environmental/public health and amenity) are combined with a 'probability' (of those outcomes) in the Risk Ranking table to identify the risk rank of each environmental/public health and amenity impact.

Measure of Consequence (Severity of Environmental Impact) table

Level: 1	Descriptor: Severe
Description	☐ Severe and/or permanent damage to the environment ☐ Irreversible ☐ Severe impact on the community ☐ Neighbours are in prolonged dispute and legal action involved
Example/ Implication	• Harm or death to animals, fish, birds or plants • Long term damage to soil or water • Odours so offensive some people are evacuated or leave voluntarily • Many public complaints and serious damage to the Council's reputation • Contravenes Protection of the Environment & Operations Act and the conditions of Council's licences and permits. Almost certain prosecution under the POEO Act
Level: 2	Descriptor: Major
Description	☐ Serious and/or long-term impact to the environment ☐ Long-term management implications ☐ Serious impact on the community ☐ Neighbours are in serious dispute
Example/ Implication	• Water, soil or air impacted, possibly in the long term • Harm to animals, fish or birds or plants • Public complaints. Neighbour disputes occur. Impacts pass quickly • Contravenes the conditions of Council's licences, permits and the POEO Act • Likely prosecution
Level: 3	Descriptor: Moderate
Description	☐ Moderate and/or medium-term impact to the environment and community ☐ Some ongoing management implications ☐ Neighbour disputes occur
Example/ Implication	• Water, soil or air known to be affected, probably in the short term • No serious harm to animals, fish, birds or plants • Public largely unaware and few complaints to Council • May contravene the conditions of Council's Licences and the POEO Act • Unlikely to result in prosecution
Level: 4	Descriptor: Minor

Description	☐ Minor and/or short-term impact to the environment and community ☐ Can be effectively managed as part of normal operations ☐ Infrequent disputes between neighbours
Example/ Implication	• Theoretically could affect the environment or people but no impacts noticed • No complaints to Council • Does not affect the legal compliance status of Council
Level: 5	Descriptor: Negligible
Description	☐ Very minor impact to the environment and community ☐ Can be effectively managed as part of normal operations ☐ Neighbour disputes unlikely
Example/ Implication	• No measurable or identifiable impact on the environment • No measurable impact on the community or impact is generally acceptable

Probability (Measure of Likelihood of Risk) table

Level	Descriptor	Description
A	Almost Certain	Common or repeating occurrence
B	Likely	Known to occur, or it has occurred
C	Possible	Could occur or 'I've heard it happening'
D	Unlikely	Could occur in some circumstances, but not likely to occur
E	Rare	Practically impossible

Risk Rating

The risk ranking matrix yields a risk ranking from 25 to 1. It covers each combination of five levels of 'probability' - a letter A to E as defined in **Probability (Measure of Likelihood of Risk) table** - and 5 levels of 'consequence', - a number 1 to 5 as defined in **Measure of Consequence (Severity of Environmental Impact) table** - to identify the risk ranking of each impact. For example, an activity with a 'probability' of D and a 'consequence' of 3 yields a risk rank of 9

	Probability				
Consequence	A	B	C	D	E
1	25	24	22	19	15
2	23	21	18	14	10
3	20	17	13	9	6
4	16	12	8	5	3
5	11	7	4	2	1

A risk rating of 19-25 would normally be deemed as an unacceptable risk. A risk rating of less than 10 would normally be deemed as an acceptable risk.