

Soil - Pasture - Livestock - Profit

18/4/2024 Mr & Mrs Nocera C/- Proficient Constructions (Aust) Pty Ltd PO Box 885 Narellan NSW 2567

Dear Mr. & Mrs. Nocera,

RE: Land Use Conflict Risk Assessment (LUCRA) for 80 Silverdale Road, The Oaks

MNC Agronomy has been commissioned on your behalf (as owners) c/- Chad Ghassbie, Proficient Constructions (Aust) Pty Ltd, to undertake a detailed Land Use Conflict Risk Assessment for 80 Silverdale Road, The Oaks. The purpose of the LUCRA is to identify and assess the potential for land use conflict to occur between neighboring land uses.

In this case, LUCRA will identify the potential effects of the proposed land use change to Lot 3 DP 1201486, 80 Silverwater Road, The Oaks, on the neighboring rural properties, ranking the probability of occurrence, and consequence of the impact, of each potential conflict. We then evaluate the type and level of management strategies required to prevent, or minimise, such effects.

Regards,

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Proposed Development

It is our understanding that the proposal seeks to amend The Wollondilly Local Environment Plan 2011 (WLEP 2011) for land at 80 Silverdale Road, The Oaks (Lot 3 DP1201486) to enable the future subdivision development consisting of 9 residential lots and 1 large rural lots. The proposed amendments to the WLEP 2011 will be:

- 1) Amend the Land Zone Map from RU2 Rural Landscape to R5 Large Lot Residential
- Change the minimum lot size from 40ha (current) to between 4247m² (minimum) and 26.56ha (maximum retained rural lot)
- 3) Amend the heights of building map to 9m in line with adjoining residential development on Browns Road (to the south).

The following site image illustrates the current boundary of Lot 3 DP 1201486:



Figure 1 – Site plan showing approximate boundary of Lot 3 DP 1201486

The following land zone map illustrates the boundary of Lot 3 DP 1201486 in relation to adjacent land use zones:



Figure 2 – Land Zone map showing approximate boundary of Lot 3 DP 1201486

The Siteplus Site Subdivision plan (below) illustrates the proposed R5 lots adjacent to the established R2 lots on Browns Road (to the South) with a large RU2 lot (26.56ha) to be retained as rural lot:



Figure 3 – SitePlus Site Subdivision Plan 18/10/23

80 SILVERDALE RD, THE OAKS

MNC AGRONOMY PTY LTD 2024



The detailed Siteplus subdivision plan shows the proposed R5 blocks in detail:

Figure 4 – SitePlus Detailed Subdivision Plan 18/10/23

Current Site, Adjoining and Surrounding Land use & Key Features

Currently utilised intermittently for grazing of beef cattle, the proposed R5 rezoning land has a permanent pasture base providing year-round ground cover and protection of the soil from erosion and degradation. The current agricultural land use is classified as non-intensive.

Directly to the east of the subdivision site (proposed to remain as part of the 26.56ha rural holing), the topography is extremely steep, but is well protected with a strong vegetation belt of large established eucalypts, as will as moderate to small under canopy vegetation maintaining ground cover and also minimizing erosion. It is proposed that this large and established vegetation belt be maintained to further enhance the recommended buffer zones between the proposed residential blocks and the remaining agricultural land.

Defined and maintained vehicular tracks link the top proposed R5 zone to the remainder of the current RU2 zones to the east and north, with a continued theme of heavy vegetation on steep and largely inaccessible areas, with a strong perennial pasture base on flat to gently undulating areas currently utilised by grazing stock.

To the far east, east of the proposed 25.56ha Rural lot to remain, there are established and operating chicken sheds. Although this is classified as intensive agriculture, as these are located >500 meters from the development, with a raod reserve, stockproof fencing, a vegetation buffer and a steep escarpment in between, these are deemed to pose no risk of conflict and therefore no further consideration has been given in this report.

To the north across the northern boundary, and to the west across Silverdale Road, agricultural land is utilised for grazing by livestock and also is classified as non-intensive. There is no intensive agriculture evident in the proximity of the development nor are there any significant supporting infrastructure (e.g. stock yards or processing sheds) noted.

To the south, the Browns Road subdivision supports established residences. The proposed development will adjoin Browns Road at the south, continuing a loop road back to Silverdale Road to North.



Figure 5 – Surrounding farmland map (Google Earth 14/3/2024)

To the south, off Browns Road, the developed subdivision comprising of R2 zoned residential lots will link directly to the proposed 15m road reserve which will run between the proposed R5 lots and the steep vegetated zone to the east, linking back up to Silverdale Road at the north of the property (please see Figure 4 above).

Silverdale Road is directly to the west, with RU2 farmland to the west of Silverdale Road. Farmland continues around to the north of the proposed subdivision, with a significant buffer between the R5 proposed blocks given the 15m road reserve will run between the most northerly R5 blocks and a large dam located on the northern boundary of the property. There is also a significant buffer of vegetation between the improved pastures to the north and the proposed R5 blocks.

Residential Development and Primary Industry Buffers

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.

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 NSW Right to Farm Policy was developed in 2015 partly in response to the increase in land use conflict noted by Local Government. The consistent application of separation distances is recognised in the Guideline as having a role in implementing this policy.

The Guideline reinforces 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 importance for buffers for new residential developments to not rely on adjacent rural landholdings to provide buffer zones to the new development is also reinforced.

The Living and Working in Rural Areas Handbook is still the most comprehensive publication pertaining to buffer/ separation distance. However, since 2007 there have been changes with respect to buffers and industry best practice management by agricultural sectors and various policies, guidelines, regulations and legislation. Relevant changes have been incorporated into the 2011 Guidelines.

The suggested evaluation distances in the Guideline between sensitive receptors and agricultural activities relevant to the proposal are as follows:

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

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.

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.

Where new residential development/ dwellings are proposed on existing land with dwelling entitlements, 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.

Land Use Conflict Risk Assessment (LUCRA)

This LUCRA has been prepared given the proposed residential land use of the site and 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.

The DPI Factsheet Land use 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 effecting 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 (e.g. noise from machinery); and
- Visual amenity associated with rural industry (e.g. 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. A risk ranking matrix has been utilised to identify potential land use conflicts. The risk ranking matrix assesses the environmental, public health and amenity impacts according to:

- 1) Probability of occurrence
- 2) Consequence of the impact

PROBABILITY	А	В	С	D	E	
Consequence						
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	

The risk ranking matrix then gives a risk ranking from 25 to 1. A rank of 25 is the highest magnitude of risk; a highly likely, very serious event. A rank of 1 represents the lowest magnitude or risk; an almost impossible or very low consequence event.

Level	Descriptor	Description
A	Almost certain	Common or repeating occurrence
В	Likely	Known to occur, or 'it has happened'
С	Possible	Could occur, or 'I've heard of it happening'
D	Unlikely	Could occur in some circumstances, but not likely to occur
E	Rare	Practically impossible

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 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
Description Example/ Implication	 Moderate and/or medium-term impact to the environment and community Some ongoing management implications
	 Moderate and/or medium-term impact to the environment and community Some ongoing management implications Neighbour disputes occur 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
Example/ Implication	 Moderate and/or medium-term impact to the environment and community Some ongoing management implications Neighbour disputes occur 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
Example/ Implication	 Moderate and/or medium-term impact to the environment and community Some ongoing management implications Neighbour disputes occur 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 Descriptor: Minor Minor and/or short-term impact to the environment and community Can be effectively managed as part of normal operations
Example/ Implication	 Moderate and/or medium-term impact to the environment and community Some ongoing management implications Neighbour disputes occur 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 Descriptor: Minor Minor and/or short-term impact to the environment and community Can be effectively managed as part of normal operations Infrequent disputes between neighbours Theoretically could affect the environment or people but no impacts noticed No complaints to Council
Example/ Implication Level: 4 Description Example/ Implication	 Moderate and/or medium-term impact to the environment and community Some ongoing management implications Neighbour disputes occur 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 Descriptor: Minor Minor and/or short-term impact to the environment and community Can be effectively managed as part of normal operations Infrequent disputes between neighbours Theoretically could affect the environment or people but no impacts noticed No complaints to Council Does not affect the legal compliance status of Council

LUCRA Site Assessment - 80 Silverdale Road, The Oaks NSW – Table 1

Site Feature	Comments	Potential conflict	
Runoff and Erosion Management during development construction	There currently is a drainage line running through the proposed blocks and into a storage dam to the north of the proposed subdivision. Stormwater and runoff engineering assessments have been carried out as part of the DA and will address the storage capacity of the dam.	Moderate	
Biosecurity threats	Extensive, pasture based grazing stock present low- probability as vectors of disease threats. Weed and pest encroachment are real threats, and will be minimised via the 50m dwelling to farmland buffer zone.	Low	
Dust	With a perennial pasture based grazing operations in all surrounding farmland, the only sources of dust will be from livestock in dry (drought) conditions, oversowing of the pastures with drill- rigs (once per year) and slashing/mulching if done in dry times. Cultivation is a possibility, but due to undulating nature is unlikely. The most likely source of dust so from the gravel driveways with truck movements.	Low	
Noise	Given the location of the subdivision, and the natural vegetation buffer and altitude change between the residential blocks and the farmland below, it is unlikely any noise impacts will occur.	Low-Moderate	

Farm chemical/spray drift	Spreading of fertiliser and spraying of chemicals will occur on the neighbouring farmland. Given the heavy vegetation adjacent to the subdivision, and the location of the majority of the farm land at least 100m away, significant drift is not expected.	Low-Moderate
Visual amenity degradation	Non-intensive agriculture of adjacent land will maintain high level of visual farmland appeal, although there may be small infrastructural builds such as storage sheds, livestock handling facilities etc. However, due to geographic layout these are likely to be visible from the residential blocks and vice versa.	Low-moderate
Residential subdivision design	A 55m building buffer from dense vegetation (fire risk) will be adhered to on each residential block. The development has been adequately engineered and designed to manage traffic and stormwater runoff. The geography of the location of the proposed subdivision effectively is an extension of the current Browns Road housing subdivision, following the upper escarpment of the ridgeline, not encroaching or affecting the remaining farmland on neighbouring or existing lots below.	Low
Odour	Rural activities (e.g. spreading of fertilisers, spraying, grazing livestock) do have potential to impact on adjoining residences. However, with adjoining land utilised for grazing stock and a 50m buffer (see residential buffer notes) the risk of odour is periodic and low.	Low-Moderate
Vehicle access	The site will be accessed off Silverdale Road (main road) and Browns Road. Potential traffic impacts will be addressed in the traffic assessment component of the DA.	Low-Moderate

Residential buffer distances		
	With a 15m road reserve to the east and north, there will only be a very small strip of available grazing land between the road reserve and the heavily timbered step undulation (which is 55m from proposed dwellings). A stockproof fence will be erected at least 50 m from proposed dwellings (between the road reserve and the timbered/steep undulation) so stock access is not possible. The road reserve and the dwelling setback on each residential block will provide a minimum 50m between grazing stock land and dwellings.	
	To the north, a catchment dam with a small amount of grazing land is currently used for livestock grazing, but is fenced off and won't be available to stock when the proposed subdivision proceeds.	

LUCRA Risk Evaluation Table - 80 Silverdale Road, The Oaks NSW -Table 2

Activity	Identified Potential Conflict	Risk Ranking	Control Methods/Mitigating Factors	Revised Risk Ranking
Runoff and Erosion Management during development construction	Potential for contaminated runoff and erosion to adjacent farmland and waterways	C3 - 13 Unacceptable	Sedimentation and erosion controls will be implemented for the construction phase of the development.	D5 - 2 acceptable
Surface water changes and stormwater management from proposed development	Increase in impermeable surfaces and runoff with potential risk of erosion during heavy rain events. Need for appropriate management of stormwater to avoid potential impacts on neighbouring farm land.	C3 - 13 Unacceptable	Stormwater runoff would be captured by drainage system, with design of the residential development in accordance with Councils Development Control Plan.	D5 - 2 acceptable
Rubbish incursion	Potential for residential rubbish to disperse into adjoining land.	C3 - 13 Unacceptable	Stormwater management system to capture litter and rubbish. Residential fencing to minimise potential airborne travel of rubbish, whilst the residences will be serviced by council's waste collection service.	D4 - 5 acceptable

Biosecurity threats	Introduction and spread of weeds, pests and diseases. Various weed species including Giant Parramatta Grass, lantana, blackberry, wild tobacco, smartweed, Bahia grass, fireweed, purple top, Amaranthus are currently present on the lot and neighbouring lots.	C3 - 13 Unacceptable	Exclusion fencing during construction, maintaining and re- establishing groundcover quickly once disturbed. Maintenance of buffer zones. Residential and rural landowners have responsibility under the Biosecurity act.	D4 - 5 acceptable
Domestic animals	Straying domestic animals near livestock	C3 - 13 Unacceptable	All residential lots will be securely fenced with domestic animal proof fencing and council policies around ownership of pets and associated responsibility will remain with owners.	E3 - 6 acceptable
Noise	Noise from livestock, farm machinery and associated farm infrastructure	B5 - 7 Acceptable	Farm noise is likely but is expected to be of very minor impact to the local community with minimal neighbour disputes likely.	B5 - 7 acceptable
Farm chemical/spray drift	Selective and non-selective chemicals possibly could drift from the targeted area into residential backyards and vice-versa.	C3 - 13 Unacceptable	With buffer zones and APVMA label guidelines adhered to, this will alleviate the potential problem.	D4 - 5 acceptable

Visual amenity degradation	Construction of buildings, sheds and	B3 - 17 Unacceptable	Extensive primary production	C4 - 8
	large structures may cause a visual		enterprises on surrounding	Acceptable
	amenity issue for the R5 lot owners,		properties means construction of	
	and likewise the rural landowners		buildings for intensive agriculture is	
	regarding the dwellings built on the		not allowed. Sheds etc must be at	
	proposed subdivision.		least 150m from boundaries, which	
			leaves no place to build within	
			eyesight due to topography around	
			site. All R5 buildings will be subject to	
			council restrictions.	

Discussion

The detailed land use conflict risk assessment (LUCRA) detailed previously has identified and assessed a range of potential land use conflicts between the proposed residential development and the surrounding land uses (namely non-intensive primary production to the east and north).

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

- Runoff and erosion management during development construction.
- Surface water changes and stormwater and management from proposed development.
- Agricultural/ Horticultural sprays
- Threats to biosecurity
- Domestic animals
- Rubbish incursion
- Noise
- Dust generation
- Odour
- Visual amenity degradation
- Vehicle access

Of the above, water runoff, stormwater/erosion management, threats to biosecurity, domestic animals, and vehicle access can be managed through standard measures that do not involve or require buffers. These 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 anyway.

Potential impacts from adjoining agricultural activities, including possible noise, dust, and odour were not considered high risk or likely to need specific intervention given the site context and nature of the agricultural activity. However, even with low risk there is still the potential for conflict when introducing new residential uses in proximity. The inclusion of the 50m separation buffer between dwellings and the farming land (used for grazing) will effectively reduce potential impacts from the adjoining activities and is deemed sufficient in this case given the large vegetation buffer directly to the east and North East of the proposed stock proof fence. This also works in conjunction with the bushfire APZ which requires dwellings be built a minimum of 55m from the heavy vegetation (i.e. in practice the stockproof fence will be erected between 50 and 55m from the dwellings).

Overall, the identified potential risks are generally low and acceptable, and do not require high levels of intervention or management. Some limited risks were identified; however, these can be readily managed to an acceptable outcome. This LUCRA has demonstrated that the proposed development is acceptable, and the proposal 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 a 50m setback from dwellings to the land used by grazing stock to the east and north of the development site, will help ameliorate this to an acceptable level. Stormwater and traffic management would be subject to engineering design solutions which are being covered in the DA.

Recommendations

To comply with primary production setbacks for grazing stock, and to minimise any potential conflicts as outlined above, a stock proof fence should be built a minimum 50m from proposed dwellings. This 50m buffer will include a 15m road reserve, a varying front of residential block buffer (i.e. front yard) which will also be fenced between the road reserve and the boundary of the residential block. There will also be a small strip of maintained grassland between the road reserve and the farm boundary fence (again, of varying width depending on APZ and front of dwelling location). Please see the following map illustration:



Figure 6: Illustration of proposed stockproof fence boundary to satisfy 50m dwelling to grazing land buffer zone

With only a very small amount of grazing land between the farmland boundary fence and the vegetation/escarpment, the biodiversity layer established east of the fence does act to substantially fortify and increase the physical buffer in place. Actions recommended to maintain this buffer are:

- Maintain existing and established large tree species (in the biodiversity layer) for rural amenity reasons as well as enhanced mitigation benefits.
- Utilise this zone between the residential boundaries and the farmland boundaries as a buffer zone where weeds are controlled regularly utilising selective herbicides and/or mechanically (e.g. physical removal, mowing or forestry mulcher).
- Ensure fence, stock-grid and gates (access to the remaining farmland) are maintained in working order at all times.

Should you have any questions or require any clarification regarding this report, please contact me at your earliest convenience.

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., & Fletcher, S.

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

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