

## LAND USE CONFLICT RISK ASSESSMENT

St Matthews Catholic School Mudgee –  
Secondary Campus  
48 Broadhead Road, Spring Flat  
(SSD 9872)



Alleanza

Submitted to  
NSW Department of Planning, Industry & Environment  
on behalf of



August 2020

## Table of Contents

<b>1 Introduction</b>	<b>3</b>
1.1 Scope of Works	3
1.2 Objective of this LUCRA	4
<b>2. Gather Information</b>	<b>5</b>
2.1 Nature of the land use change and development proposed	5
2.2 Nature of the precinct where the land use change and development is proposed	9
2.3 Topography, Climate and Natural Features	13
2.4 Site History	14
2.5 Site Inspection Outcomes	15
2.6 Consultation	20
<b>3. Land Use Conflict Risk Assessment</b>	<b>21</b>
3.1 Introduction	21
3.2 Initial risk identification and Risk Ranking	21
3.3 Risk Reduction Controls	25
3.4 Performance monitoring	25
3.5 Limitations / assumptions	25
3.6 Key documents / resources	25
<b>4. Conclusions and Recommendations</b>	<b>26</b>

This report has been prepared and reviewed by:



Oliver Klein BA MURP MPIA RP  
Director  
\_planning Pty Ltd  
L6, 58 Pitt Street  
Sydney NSW 2000

Date: 25 August 2020

## 1 Introduction

This Land Use Conflict Risk Assessment (LUCRA) is submitted to the NSW Department of Planning, Industry & Environment (DPI&E) in support of a State Significant Development (SSD) Development Application (DA) with respect to the proposed construction of a new secondary campus for the Trustees of the Roman Catholic Church for the Diocese of Bathurst at 48 Broadhead Road, Spring Flat (Mudgee).

The proposed development is for the construction of the new St Matthews Catholic School Mudgee – Secondary Campus for Years 7-12. The development is the initial stage of an overall transfer of the existing St Matthews Catholic School from its existing site at Lewis Street, Mudgee to the Broadhead Road site. The current DA only seeks consent for the development of the new secondary campus. The proposed student population under this DA is up to a maximum of 680 students.

The site is located at Lot 40 DP 756894 – 48 Broadhead Road, Spring Flat some 3km south-east of the centre of Mudgee. Whilst being a greenfield site it adjoins an area of semi-rural / semi-urban development and which has also been earmarked for future urban land release and residential development. Mudgee (and the site) sits within the Mid-Western Regional Council Local Government Area (LGA).

The site has frontages to both Broadhead Road to the west (approximately 415m at the western boundary) and Bruce Road to the south (approximately 300m to the southern boundary). The land has an area of about 12.14ha, and is generally level, undeveloped vacant rural land with a rectangular shape.

The EIS for the development was exhibited from Wednesday 27 May 2020 until Tuesday 23 June 2020. The DA generated a handful of submissions including one from NSW Department of Primary Industries. In raising no objection to the proposal, the NSW Department of Primary Industries noted that the Mudgee Gulgong Urban Release Strategy 2014 proposes the future of this site and adjoining land as large lot residential development, and that it is identified for future urban purposes in the Mid-Western Council Regional Comprehensive Land Use Strategy (2010).

Notwithstanding, it recommended that a land use conflict assessment be undertaken in relation to the adjoining lands that are used for agriculture. It sought mitigation measures to deal with any risk from current or potential agricultural land uses in the area. Accordingly, appropriate buffer zones were sought to mitigate or manage any identified risk.

The DPI&E in responding to the exhibition phase of the development re-iterated the need for a LUCRA, adding it must include details of:

- impacts of agricultural sprays.
- odour and dust due to intensive agricultural use.
- conflicts between school traffic and slow-moving agricultural vehicles on the surrounding roads.

### 1.1 Scope of Works

Based on the above, this LUCRA has been prepared with reference to the *Land Use Conflict Risk Assessment Guide* (NSW Department of Primary Industries) and *Buffer Zones to Reduce Land Use Conflict with Agriculture* (NSW Department of Primary Industries).

It sets out its structure from the suggested format within the *Land Use Conflict Risk Assessment Guide* and the methodology and key steps are taken directly from that guide.

The aims of a LUCRA are to:

- Identify and address potential land use conflict issues and risk of occurrence before a new land use proceeds or dispute arises;
- Objectively assess the effect of the proposed land use on neighbouring land uses;
- Increase the understanding of potential land use conflict to inform and complement development control and buffer requirements; and
- Highlight or recommend strategies to help minimise the potential for land use conflicts to occur and contribute to negotiation, proposal, implementation, and evaluation of separate strategies.

The key steps are to:

- Gather information about proposed land use change and associated activities;
- Evaluate the risk level of each activity;
- Identify risk reduction management strategies; and
- Record LUCRA results.

## **1.2 Objective of this LUCRA**

The objective of this LUCRA is to demonstrate that the development of St Matthews Catholic College at the site is unlikely to be affected by, and conversely affect, agricultural activity on adjoining land. The outcome is to demonstrate that the school is appropriately located and is suitably sited within the site to avoid any lasting and negative impacts.

## 2. Gather Information

This section sets out the nature of the proposed use; the context of the site; its adjacent land uses; and other background information, including the site's and locality's physical and climatological attributes.

### 2.1 Nature of the land use change and development proposed

The proposed development, as described in the EIS supporting the DA is set out below.

The SSD DA seeks consent for the construction of a new multi-purpose secondary education facility within the Mudgee Region that meets future demands for the developing region. The new secondary school to be known as St Matthews Catholic School Mudgee – Secondary Campus will cater for 680 secondary school students (4-Stream Year 7-12).

The development will comprise of:

- A cluster of five low-rise school buildings (1-2 storeys) including:
  - Block A - Professional Hub (office and administration);
  - Block B - Spiritual Hub (Chapel);
  - Block C - Community Hub (Multi-purpose hall, Music/Dance Studio and canteen);
  - Block D – STEM Research Hub (teaching spaces); and
  - Block E - Knowledge and Learning Hubs (General Teaching spaces);
- Yarning Circle (Outdoor learning area);
- Outdoor Student Assembly Area and COLA;
- Student free-play area;
- Staff and student amenities;
- Associated site landscaping and public domain improvements;
- On-site parking and access arrangements off Bruce Road, including:
  - On-grade car park for staff, students and visitors (82 spaces – including 2 accessible spaces);
  - A 25-bay student drop-off and pick-up area;
  - A 3-bay bus drop-off and layover area;
  - Bus turning area and servicing access;
  - Dedicated separate driveway for service vehicles; and
  - Bicycle parking for 36 bicycles;
- Associated earthworks, civil works, perimeter roadworks, fencing, services and utilities connections and augmentation, including:
  - Roadworks to Broadhead Road and Bruce Road to the full extent of the site frontages;
  - Roadworks to the Broadhead Road and Bruce Road intersection to cater for bus movements;
  - Footpath along the site frontage of Broadhead Road and suitable pedestrian crossing to connect to existing footpath;
  - Stormwater infrastructure upgrades adjacent to and within the site, including new culverts and drains, levee, and bioswale;
  - Connection to existing sewer line within the site; and
  - Electrical and water connections into the site.

The location of the site is shown in **Figure 1** over. This shows the general semi-rural / semi-urbanised nature of the site and its context. This is addressed further below. The proposed development's spatial arrangement is shown in **Figure 2** over. Note, the proposed development is confined to an area adjacent to the corner of Broadhead and Bruce Roads in the south-west of the site, away property boundaries of the immediately adjacent agricultural land.



**Figures 3 to 5** show architectural renderings of the proposed nature and scale of the school buildings in their setting. Generally, the majority of school related activity at the site, including traffic movements is focused to the south-western corner of the site. Access will be limited to the northern unused portion of the site via fencing of a type typically used on rural properties.



**Figure 3 – Broadhead Road elevation / rendering looking across Sawpit Gully (Alleanza)**



**Figure 4 – Bruce Road elevation / rendering looking to the north-west (Alleanza)**



**Figure 5 - Render of proposed school - internally looking north (Alleanza)**

Photographs of the site are included at **Figures 6** and **7**.



**Figure 6 – View across the site looking east from Broadhead Road.**



Figure 7 – View to the north from within the site

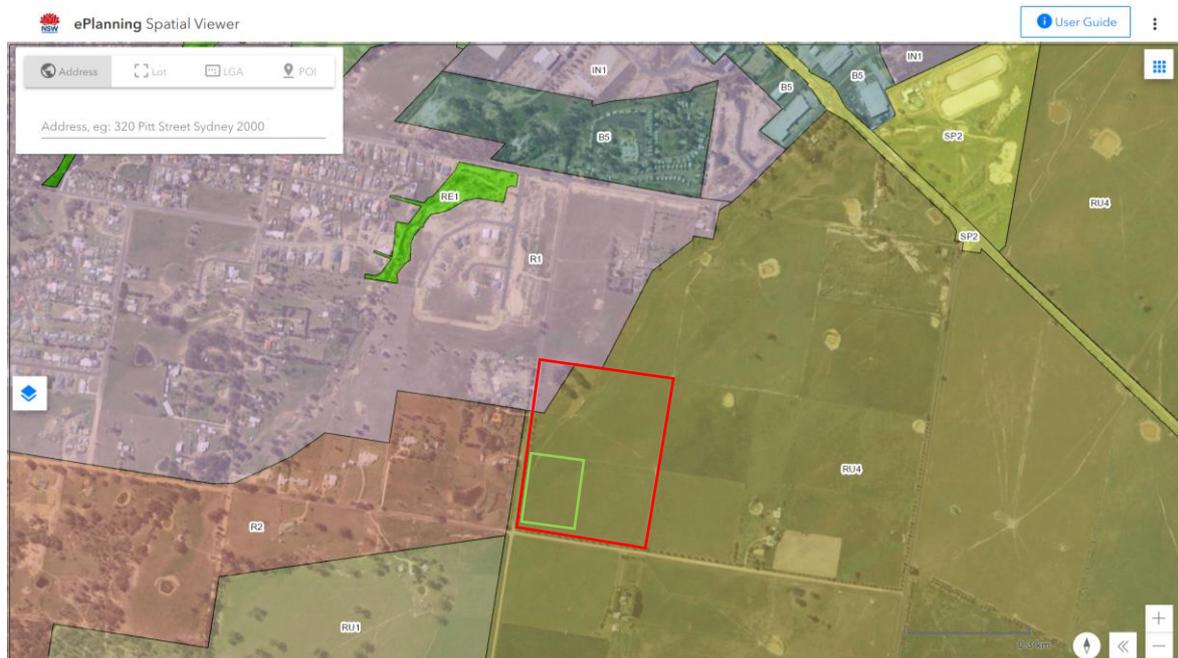
## 2.2 Nature of the precinct where the land use change and development is proposed

The precinct within which the school is to be located is generally at the southern extent of the urbanised area of present-day Mudgee. It is however an area in transition and is under progressive development that is converting rural and semi-rural land to urbanised uses. The current zoning of the land and adjacent sites within the precinct is shown on **Figure 8**.

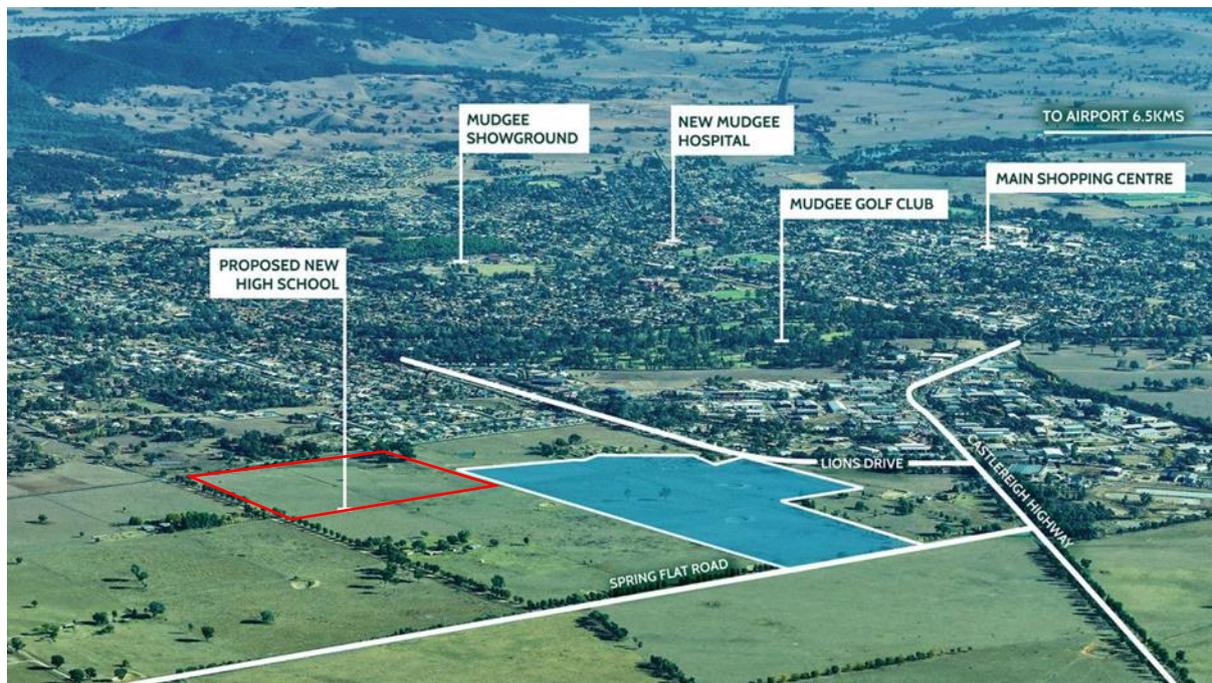
As is seen, the school site is zoned RU4 - Primary Production Small Lots, as is other land to its immediate east and north towards the Castlereagh Highway, as well as over Bruce Road to the south. The school is permitted with consent in the RU4 zone by both the *Mid Western Regional Local Environmental Plan 2012* and *State Environmental Planning Policy (Educational Establishments and Child Care Facilities) 2017*. Relevantly, the area immediately adjacent the school location to its west is zoned R2 – Low Density Residential. It is this area that the school would have the most direct relationship to and with. It is understood from discussions with Council that a current DA for the redevelopment of this land for residential purposes is under consideration.

Similarly, further to the north-west of the site is a recently developed and occupied residential subdivision which is zoned R1 – General Residential. In fact, part of the northern extent of the subject site is also zoned R1 – General Residential. This reinforces the general path, pattern, and trend for new residential into this part of Mudgee. At the time of the rezoning of the lands in 2012, the inherent conflicts of land use change would have been considered by Council and accepted as reasonable.

Further, and notwithstanding the RU4 zoned land to the north and east, recent DA consent has also been granted to a new 206-dwelling retirement village (with option for an additional 60-80-bed Residential Aged Care Facility) at 38 Spring Flat Road, the site to the immediate north-east of the subject site – see **Figure 9**. The relevance of this is set out further below.



**Figure 8 – Zoning plan over aerial photograph – site and context (ePlanning Spatial Viewer)**

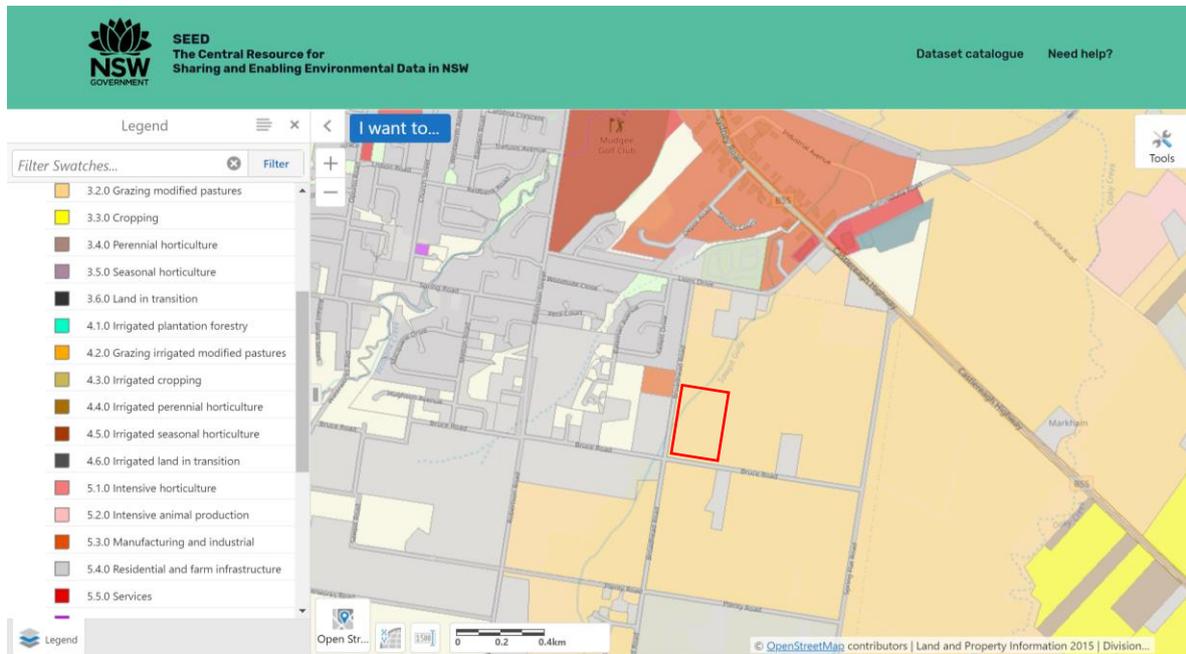


**Figure 9 – Marketing photograph for the sale of 38 Spring Flat Road (Domain)**

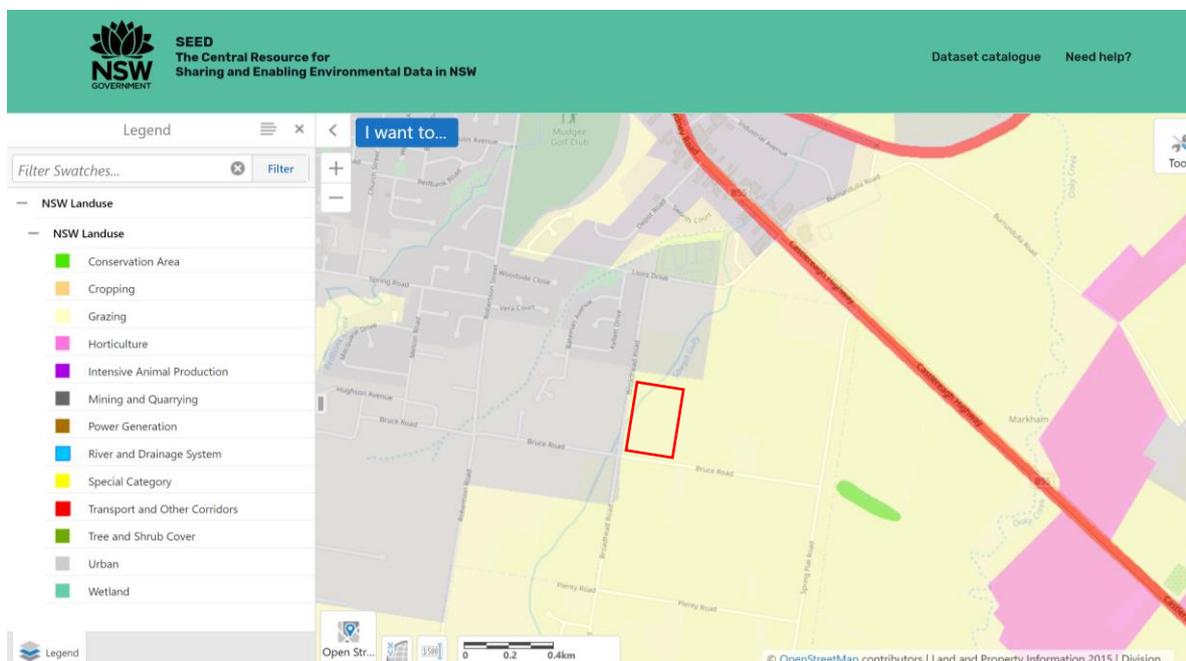
Council's Mudgee and Gulgong Urban Release Strategy generally sets out the path of continued urbanisation in this part of Mudgee from 2015 to 2035. The subject site and adjacent rural land is not

identified for any intensification of residential use, but is identified as an area able to immediately accommodate additional residential housing stock to assist in meeting housing need and housing choice within the locality. The northern part of the subject site is identified as supporting adjacent housing objectives and growth with smaller (600m<sup>2</sup>) lots.

In terms of the land-based attributes of the subject site and adjacent rural land, reference was made to the NSW Government SEED webpage. **Figures 10-14** are derived from that webpage. Discussion follows.

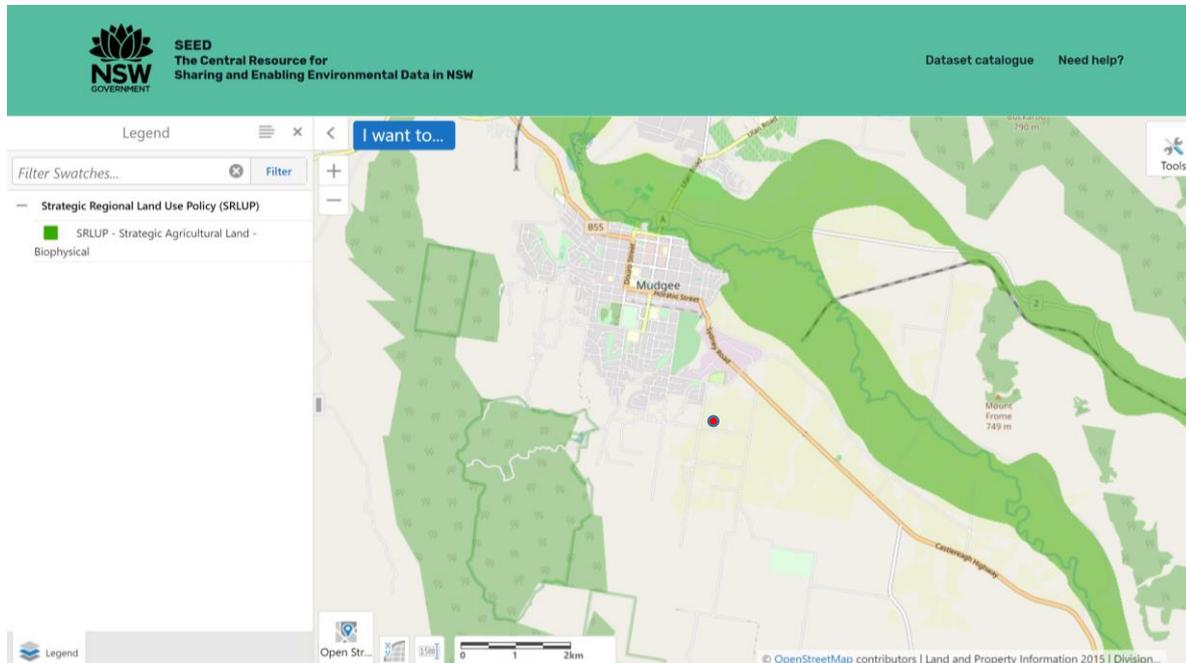


**Figure 10 - Land Use 2017 (SEED)**



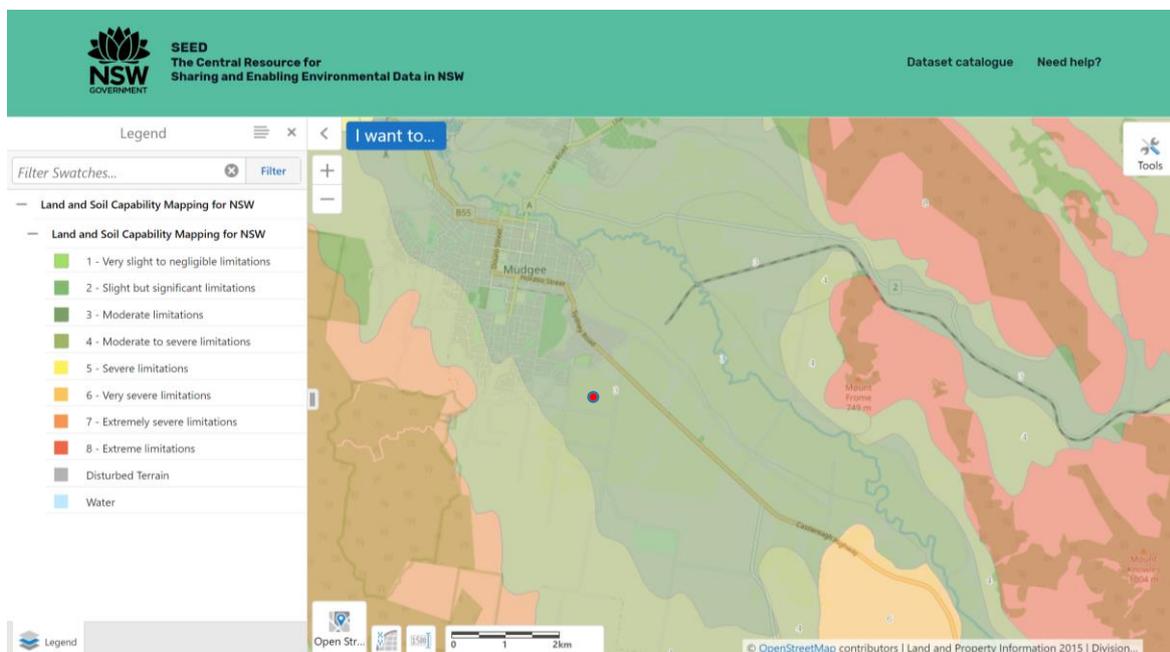
**Figure 11 - Land Use 2007 (SEED)**

**Figures 10 and 11** set out the mapped land uses at and around the site over a 10-year period from 2007 to 2017. This shows the land to be presently categorised as 'Grazing – Modified Pastures' (in 2017) and 'Grazing' (in 2007). It does to some degree also highlight the urbanisation of the general area. More relevantly it does show the site to sit at the extreme western edge of these areas of grazing and abutting urbanised land. To that end the agricultural influences upon the site occur mainly to the south and west, north-west.



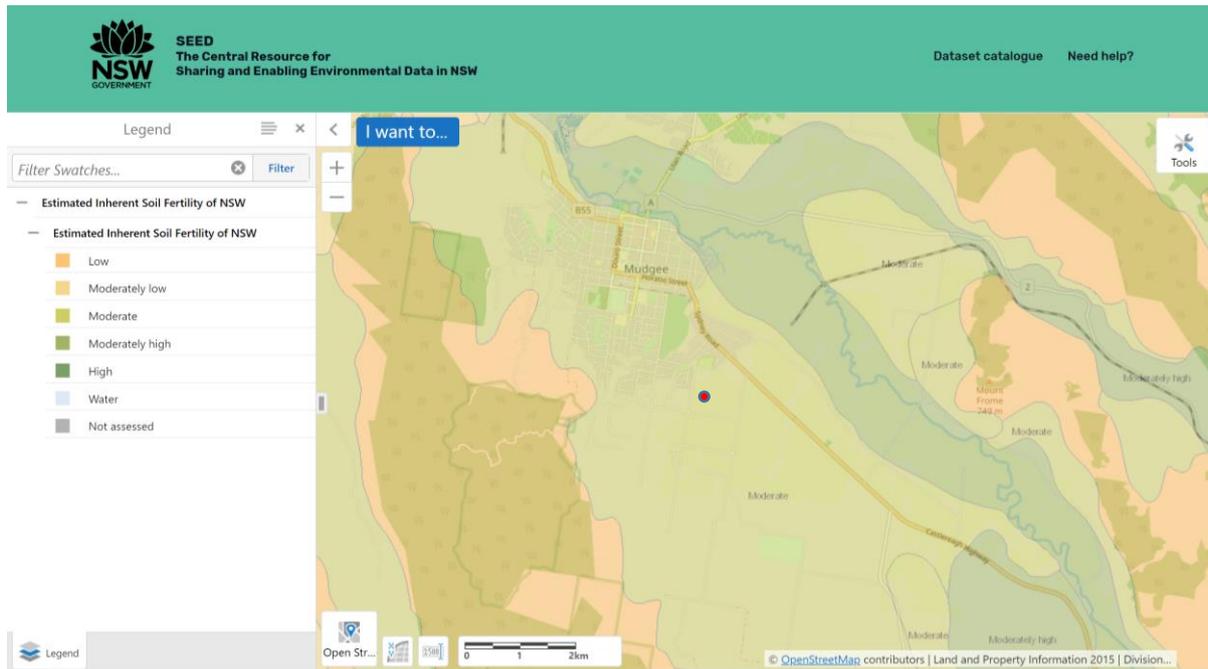
**Figure 12 - Strategic Agricultural Land – Biophysical (SEED)**

**Figure 12** shows the site and adjacent area is not identified as Strategic Agricultural Land from a biophysical standpoint.



**Figure 13 - Land and Soil Capability (SEED)**

**Figure 13** highlights the site as being subject to 'Moderate Limitations' with respect to land and soil capability.



**Figure 14 - Estimated Inherent Soil Fertility (SEED)**

Lastly, **Figure 14** indicates the site and environs to be broadly of 'Moderate' inherent soil fertility.

To that end, the site and its environs are not exceptional agricultural lands and are, as indicated above, suitable lands for grazing, noting the modified nature of the lands and semi-rural / semi-urban context.

In its submission the Department of Primary Industries indicated the site and its environs to be suitable or desirable viticulture lands due to the soil qualities in this location. Generally, viticulture activity around Mudgee occurs well removed from the township, and predominantly to the north. Some wineries are located to the south generally along the Castlereagh Highway alignment. Putting soil qualities to the side, there would be other locational considerations for viticulture than soil alone in the context of land at and around Mudgee.

## 2.3 Topography, Climate and Natural Features

### ***Topography***

The site is generally flat in the context of its size. It falls from RL 491 at its junction of Broadhead Road and Bruce Road to RL 483 at its north-eastern boundary. With a fall of about 8m over a diagonal length of over 510m, a moderate grade of less than 2% results.

### ***Climate***

In terms of temperature, the site, like Mudgee is broadly temperate with cool winters and warm to hot summers. Of relevance, winds are predominantly from the south-south east and from the west. North and north-easterly winds are less common. The strongest winds are mainly from the west and south-east. See **Figure 15** over. Accordingly, the impacts of agricultural odours from immediately adjacent agricultural uses are unlikely to significantly affect the school site.

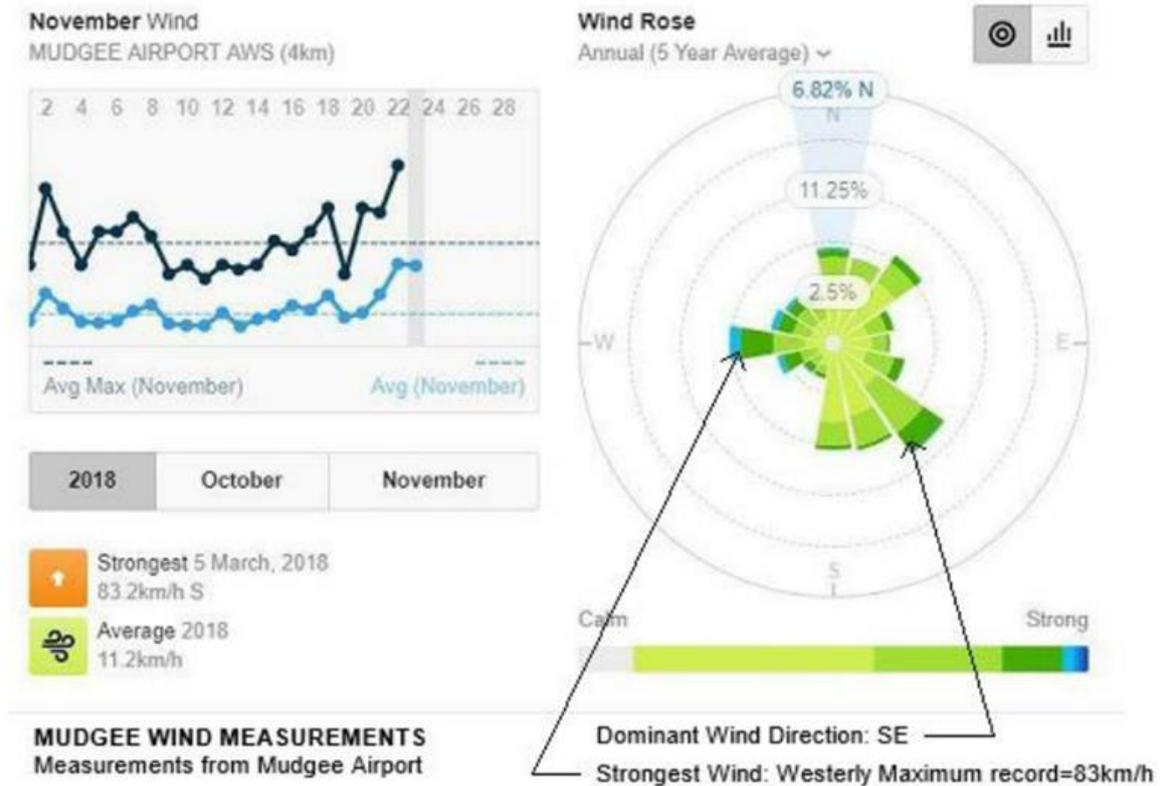


Figure 15 – Wind data (extract from Architectural Design Statement (Alleanza))

## Natural Features

The site is disturbed and generally free of any significant natural features. It is lined by planted trees along the Broadhead Road and Bruce Road frontages. A stand of remnant native vegetation is located in the far north-western pocket of the site away from the proposed school location and adjacent residential development. Sawpit Gully (see **Figure 16**) along with an existing sewer main bisect the site in a south-west to north-easterly direction.

## 2.4 Site History

It appears from the data above and that collected as part of the current SSD DA process that there have been few uses of the land. As the land is cleared and generally unserviced it is presumed that it has been consistently used for low-scale and low-intensity grazing, like adjacent land.

The DA's contamination assessment indicates from field observations by Martens in May 2019 that:

- The site was unused and largely covered by grass, with mature trees located at the northwest corner of site;
- A dam is located in the northwest portion of site;
- A power box was located near mature trees in northwest portion of site;
- Stockpiles are located in northwest corner of site; and
- Topsoil consisting of silty clay, with underlying alluvium up to maximum termination depth of 7.0m.

Laboratory and analytical testing results confirmed (amongst other things) the following:

- No asbestos was found at the site.
- Overall, the site is not considered to generally have a risk of contamination and the site is considered suitable for the proposed land use.

- No further investigations or remediation is considered necessary.

This points to the site being used for livestock grazing, however not to any intensified extent that it includes an existing or former plunge dip (or cattle dip) to immerse livestock in liquid pesticide or other treatment. This is likely to have occurred elsewhere, if at all.

The site is also in a disturbed state through previous stormwater management works to Sawpit Gully which extends through the site (see **Figure 16**). An existing sewer main also runs alongside the gully in a south-west to north-easterly direction through the site.

The site is otherwise devoid of an indication of prior or consistent ongoing land use.



**Figure 16 – Sawpit Gully looking south-west towards Broadhead Road**

## 2.5 Site Inspection Outcomes

Three site visits undertaken in May 2019, July 2019, and January 2020 have provided key insights to the nature, use and operation of land at and around the site.

The site itself is devoid of any current use. Rural land to the south and west is generally large-lot rural-residential development. Most of the land in the immediate vicinity is not used for any immediately obvious agricultural purpose. Much of the adjacent land is open and unused.

Low-intensity and low-scale grazing however was observed however at 38 Spring Flat Road (the site of the approved but yet to commence retirement village development) to the north-east of the subject site. Grazing is shown in photos at **Figures 17** and **18**.

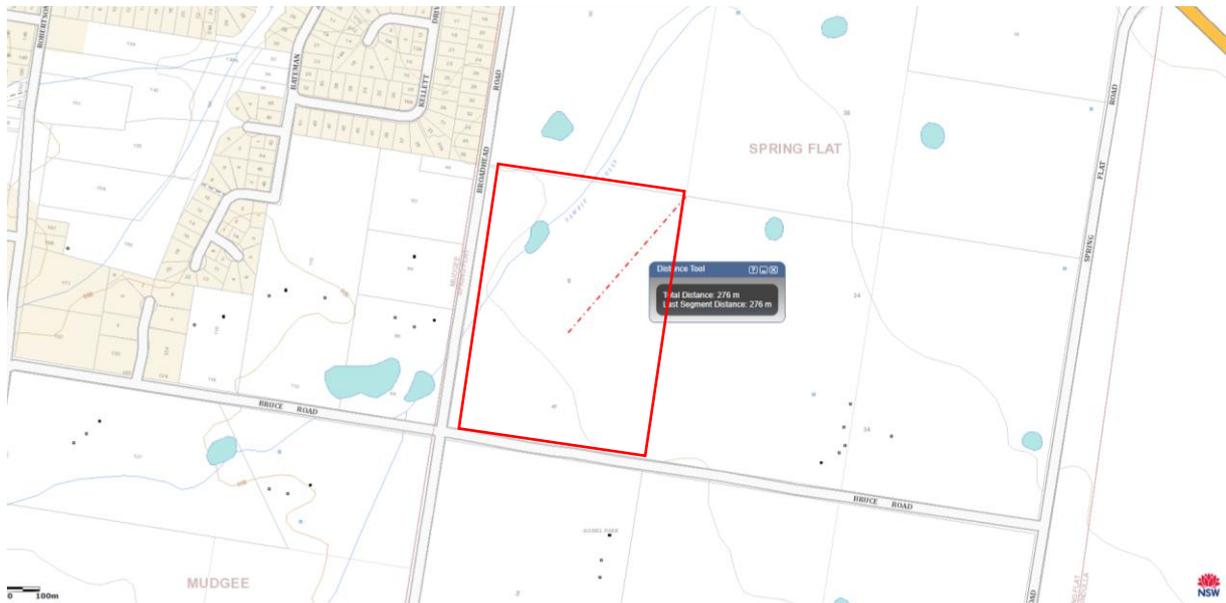


**Figure 17 – Sawpit Gully looking north-east towards 38 Spring Flat Road**



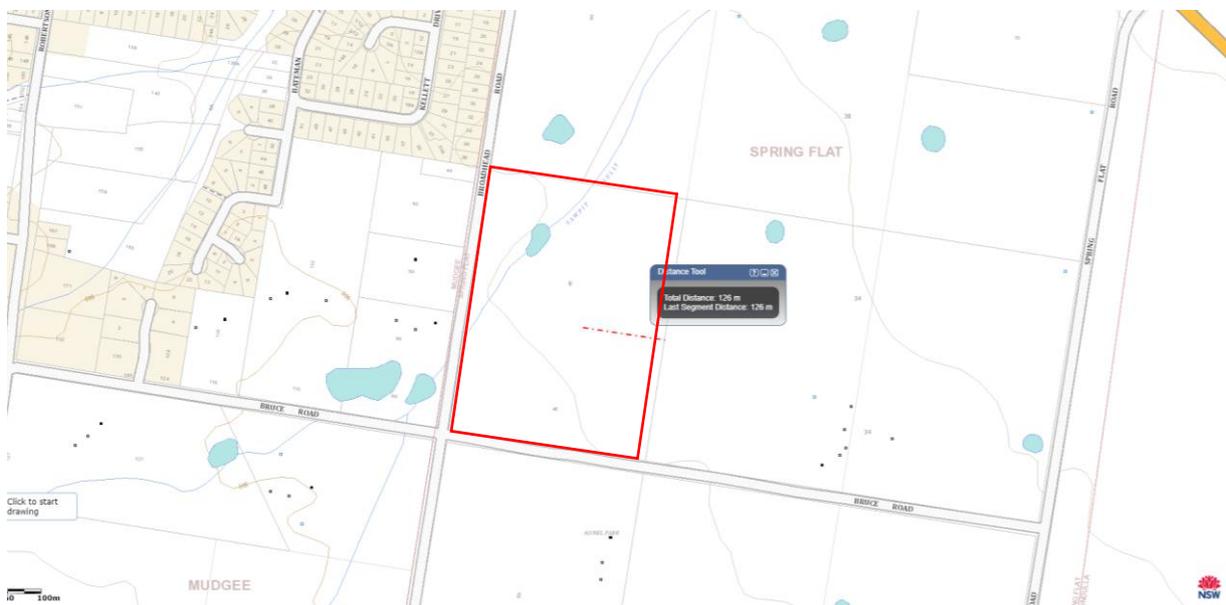
**Figure 18 – Sawpit Gully looking north-east towards 38 Spring Flat Road**

Based on the proposed location of the school development site, the adjacent low-scale / low-intensity grazing is about 275m removed from the school use and vice versa – see measurements taken using the SixMaps site in **Figure 19** below.



**Figure 19 – Distance from school to site boundary with 38 Spring Flat Road (SixMaps)**

Even with the potential for grazing on the adjacent land to the east, this is some 125m from the school site – see **Figure 20**. The site to the immediate south would be within 50m from the school accommodation across the proposed car park to the site boundary. However, as noted it does not display any consistent or ongoing low-scale or low-intensity grazing uses.



**Figure 20 – Distance from school to site boundary with adjacent site on Bruce Road (SixMaps)**

All other adjacent land is otherwise cleared and unused residentially-zoned land or used for residential 'suburban' purposes to the west and north-west. See **Figures 21-25** over.



**Figure 21 – Property to the immediate south of proposed school site on Bruce Road**



**Figure 22 – Property to the immediate east of proposed school site at 227 Bruce Road**



**Figure 23 – Property further south of proposed school site along Broadhead Road**



**Figure 24 – Properties further north-west of proposed school site along Broadhead Road**



**Figure 25 – Properties further north-west of proposed school site along Broadhead Road**

## **2.6 Consultation**

No consultation was undertaken with any authorities, neighbours or the like given the generally benign and low-intensity and low-scale agricultural uses observed and self-evident at and around the site.

The findings of this LUCRA are derived from three site visits undertaken in May 2019, July 2019, and January 2020 and from desktop review of relevant strategic and statutory planning sources, as well as relevant environmental database resources.

### 3. Land Use Conflict Risk Assessment

#### 3.1 Introduction

This section sets out the methodology for the LUCRA and carries out the risk assessment on the basis of a number of known agricultural activities that may have some potential of impacting upon the school use, whether through loss of amenity, including visual, light, noise and air pollution impacts, chemical (pesticides / herbicides) and odour impacts, vehicular impacts and the like.

The DPI&E has specifically requested that possible impacts arising, relating principally to rural amenity issues such as the following be addressed:

- air quality due to agricultural 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. the use of netting, planting of monocultures and impacts on views.

The LUCRA Guide also recommends environmental protection issues including:

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

Direct impacts from neighbouring land uses on farming operations can also cause conflict, such as:

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

#### 3.2 Initial risk identification and Risk Ranking

The risk identification around the above activities is assessed through the following Risk Matrix, Probability Table, and Measure of Consequence. Each is set out below and over.

The risk ranking matrix yields a risk ranking from 25 to 1. It covers each combination of five levels of 'probability' (as letters A to E as defined in the Probability Table) and 5 levels of 'consequence', (as numbers 1 to 5 as defined in the Measures of Consequence 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**.

The objective is to achieve a risk ranking score of 10 or lower (within the green scale range). Where a score is over 10 this will require management or mitigation measures to be employed.

#### Risk Matrix

Probability		A Almost Certain	B 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

**Probability Table**

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

**Measure of Consequence**

<b>Level 1</b>		<b>Descriptor: Severe</b>
<b>Description</b>		<ul style="list-style-type: none"> <li>Severe and/or permanent damage to the environment</li> <li>Irreversible</li> <li>Severe impact on the community</li> <li>Neighbours are in prolonged dispute and legal action involved</li> </ul>
<b>Example / Implication</b>		<ul style="list-style-type: none"> <li>Harm or death to animals, fish, birds or plants</li> <li>Long term damage to soil or water</li> <li>Odours so offensive some people are evacuated or leave voluntarily</li> <li>Many public complaints and serious damage to Council's reputation</li> <li>Contravenes Protection of the Environment &amp; Operations Act and the conditions of Council's licences and permits. Almost certain prosecution under the POEO Act</li> </ul>
<b>Level 2</b>		<b>Descriptor: Major</b>
<b>Description</b>		<ul style="list-style-type: none"> <li>Serious and/or long-term impact to the environment</li> <li>Long-term management implications</li> <li>Serious impact on the community</li> <li>Neighbours are in serious dispute</li> </ul>
<b>Example / Implication</b>		<ul style="list-style-type: none"> <li>Water, soil or air impacted, possibly in the long term</li> <li>Harm to animals, fish or birds or plants</li> <li>Public complaints. Neighbour disputes occur. Impacts pass quickly</li> <li>Contravenes the conditions of Council's licences, permits and the POEO Act</li> <li>Likely prosecution</li> </ul>
<b>Level 3</b>		<b>Descriptor: Moderate</b>
<b>Description</b>		<ul style="list-style-type: none"> <li>Moderate and/or medium-term impact to the environment and community</li> <li>Some ongoing management implications</li> <li>Neighbour disputes occur</li> </ul>
<b>Example / Implication</b>		<ul style="list-style-type: none"> <li>Water, soil or air known to be affected, probably in the short term</li> <li>No serious harm to animals, fish, birds or plants</li> <li>Public largely unaware and few complaints to Council</li> <li>May contravene the conditions of Council's Licences and the POEO Act</li> <li>Unlikely to result in prosecution</li> </ul>
<b>Level 4</b>		<b>Descriptor: Minor</b>
<b>Description</b>		<ul style="list-style-type: none"> <li>Minor and/or short-term impact to the environment and community</li> <li>Can be effectively managed as part of normal operations</li> <li>Infrequent disputes between neighbours</li> </ul>
<b>Example / Implication</b>		<ul style="list-style-type: none"> <li>Theoretically could affect the environment or people but no impacts noticed</li> <li>No complaints to Council</li> <li>Does not affect the legal compliance status of Council</li> </ul>
<b>Level 5</b>		<b>Descriptor: Negligible</b>
<b>Description</b>		<ul style="list-style-type: none"> <li>Very minor impact to the environment and community</li> <li>Can be effectively managed as part of normal operations</li> <li>Neighbour disputes unlikely</li> </ul>
<b>Example / Implication</b>		<ul style="list-style-type: none"> <li>No measurable or identifiable impact on the environment</li> <li>No measurable impact on the community or impact is generally acceptable</li> </ul>

**Initial Risk Evaluation**

<b>Activity</b>	<b>Identified Potential Conflict</b>	<b>Risk Ranking</b>
Visual Impacts	Loss of or reduced visual amenity associated with rural industry e.g. the use of netting, planting of monocultures and impacts on views.	D x 5 = <b>2</b>
Light Impacts	Loss of amenity due to lighting impacts associated with grazing.	E x 5 = <b>1</b>
Noise and Vibration Impacts	Loss, or reduced use and enjoyment, of neighbouring land e.g. noise from machinery	D x 4 = <b>5</b>
Air Quality Impacts	Loss of or reduced air quality due to agricultural and rural industrial activities (whether through odour, pesticides, dust, smoke and particulates).	C x 4 = <b>8</b>
Chemical Pollution	Loss of use of open areas of the school due to chemical contamination of the school through spraying and other application of chemicals in grazing.	E x 5 = <b>1</b>
Traffic Impacts	Agricultural vehicles accessing sites impacting upon general and school-related traffic movements.	C x 4 = <b>8</b>
Environmental protection issues	Soil erosion leading to land and water pollution	E x 5 = <b>1</b>
	Clearing of native vegetation, and	E x 5 = <b>1</b>
	Stock access to waterways.	E x 5 = <b>1</b>
Impacts from the school on farming operations	Harassment of livestock from straying domestic animals	E x 5 = <b>1</b>
	Trespass upon grazing land	D x 5 = <b>2</b>
	Changes to storm water flows or water availability to grazing land	E x 5 = <b>1</b>
	Poor management of pest animals and weeds	E x 5 = <b>1</b>

**Discussion**

Based on the risk assessment it is highly unlikely that placing the two land uses moderately in proximity to each other is likely to generate any risks that are lasting and detrimental to one or the other land use. All risk ranking results are under 10 and accordingly a management strategy to address impacts is not warranted.

This is largely founded on the distance (at least 275m) of the proposed school from any existing agricultural activities and the distance of the proposed school from adjoining land that has capacity to undertake low-intensity grazing activities, which is the most common agricultural activity within this part of Mudgee.

**Buffer zones**

The NSW Department of Primary Industries guide *Buffer Zones to Reduce Land Use Conflict with Agriculture* sets out a range of buffer zones between competing or conflicting land uses (ie agriculture and sensitive land uses). It recommends using the LUCRA Guide to determine if a buffer zone is required to be formally implemented. Of a range of agricultural uses and industries, 'stock grazing' allows for the shortest distance based on its generally passive low impact nature. The 'stock grazing' buffer is 50m, which the school satisfies in all directions where it addresses or adjoins agricultural land.

By comparison, indoor pig farms, cattle farm lots, and indoor or outdoor poultry farms require at least 1km. After 'stock grazing' (50m) the next least offensive agricultural activity is grain silos (100m) followed by rabbit farming (150m). See over for the table as derived from *Buffer Zones to Reduce Land Use Conflict with Agriculture*.

**Table 1: Suggested evaluation distances between agriculture and sensitive receptors**

Agricultural Land Use	Distance (meters)	Source
Pig Farms (indoor)	(1)1000 <sup>a</sup> (2) 500	Living and Working in Rural Areas Handbook (2007) For facilities holding less than 200 pigs - Draft Standard Instrument LEP (2017)*
Pig Farms (outdoor)	500	National Environmental Guidelines for Outdoor Rotational Piggeries - Revised: Australian Pork Limited (2013)
Poultry (broiler & eggs) indoor and outdoor	(1)1000 <sup>b</sup> (2) 500	Living and Working in Rural Areas Handbook (2007) and Level 1 Odour Modelling case study For facilities holding less than 1000 birds - Draft Standard Instrument LEP (2017)*
Dairies	500 <sup>c</sup>	Including for facilities holding less than 50 head - Draft Standard Instrument LEP (2017)*
Cattle Feedlots	1000 <sup>d</sup> 500	Living and Working in Rural Areas Handbook (2007) For facilities holding less than 50 head - Draft Standard Instrument LEP (2017)*
Sheep or goat Feedlots	500	Living and Working in Rural Areas Handbook (2007)
Rabbits	150 <sup>e</sup>	Rabbit Farming: Planning and Development Control Guideline: NSW DPI (2002)
Other intensive livestock	250	SEPP (Exempt and Complying Development Codes) 2008
Stock grazing	50	Living and Working in Rural Areas Handbook (2007)
Stock yards	200	SEPP (Exempt and Complying Development Codes) 2008 –Inland Code
Outdoor Cropping/sugar cane/turf farms	300	Living and Working in Rural Areas Handbook (2007)
Outdoor horticulture	250	SEPP (Exempt and Complying Development Codes) 2008
Protected cropping (greenhouses)	250	SEPP (Exempt and Complying Development Codes) 2008
Silos/grain storage bunkers	100	SEPP (Exempt and Complying Development Codes) 2008 –Inland Code
Fan assisted silos (Macadamia nuts)	300	Living and Working in Rural Areas Handbook (2007)

### 3.3 Risk Reduction Controls

#### Management Strategy

Given all risk ranking results are under 10 and the accepted buffer control for stock grazing is 50m (which the proposed school location satisfies) a management strategy to address impacts is not warranted in this instance.

Identified Potential Conflict	Management Strategy (Method of Control)	Revised Risk Ranking	Performance Target
N/A	N/A	N/A	N/A

#### 3.4 Performance monitoring

No performance monitoring is considered relevant given the above findings.

#### 3.5 Limitations/assumptions

This LUCRA has been prepared principally based on a desktop assessment of the material as cited in Section 3.6 below, along with three site visits undertaken in May 2019, July 2019, and January 2020, review of photography taken at those site visits, and publicly-available aerial photography.

#### 3.6 Key documents / resources

This LUCRA has been prepared with reference to the following:

- Land Use Conflict Risk Assessment Guide (NSW Department of Primary Industries);
- Buffer Zones to Reduce Land Use Conflict with Agriculture (NSW Department of Primary Industries);
- Mid-Western Regional Council – Mudgee and Gulgong Urban Release Strategy (Hill PDA);
- *Mid-Western Regional Local Environmental Plan 2012*;
- ePlanning Spatial Viewer;
- SixMaps; and
- SEED - The Central Resource for Sharing and Enabling Environmental Data in NSW

#### **4. Conclusions and Recommendations**

Based on the above, it can be concluded that the proposed new St Matthews Catholic School Mudgee – Secondary Campus is unlikely to have any new or ongoing impact upon any nearby existing and potential agricultural activities. The propensity for new or intensified agricultural activity in this locality is low given the general urban release strategy of Council and the progressive expansion of urban uses in this part of Mudgee.

Conversely, the passive and low-scale and low-intensity nature of the predominant agricultural use in Spring Flat (low-intensity cattle grazing) is unlikely to affect the use of the site as a school.

Consequently, it can be concluded that no land use conflict arises, and accordingly no management or mitigation measures or regime is applicable in this instance.