

# Agricultural Land Capability Study

Submitted to Wollondilly Shire Council  
on behalf of Morehuman Property Group

16 May 2024

The logo for GYDE, featuring the word in a bold, white, sans-serif font. The letters are positioned over a diagonal split background: a dark teal upper half and a light olive green lower half.

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## Acknowledgment of Country



**Towards Harmony by Aboriginal Artist Adam Laws**

Gyde Consulting acknowledges and pays respect to Aboriginal and Torres Strait Islander peoples past, present, Traditional Custodians and Elders of this nation and the cultural, spiritual and educational practices of Aboriginal and Torres Strait Islander people. We recognise the deep and ongoing connections to Country – the land, water and sky – and the memories, knowledge and diverse values of past and contemporary Aboriginal and Torres Strait communities.

Gyde is committed to learning from Aboriginal and Torres Strait Islander people in the work we do across the country.

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## **1. Introduction**

This Agricultural Land Capability Study has been prepared by Gyde Consulting on behalf of Morehuman Property Group to accompany a planning proposal for land at 1838 Barkers Lodge Road, 1455 Burragorang Road & 1475 Burragorang Road, Oakdale (the site).

The proposal involves rezoning the site from zone RU1 Primary Production to a combination of zone R2 Low Density Residential, zone E2 Environmental Conservation and zone E3 Environmental Management.

During pre-lodgement consultation in relation to the planning proposal, Wollondilly Shire Council has requested that, in accordance with the Wollondilly Rural Lands Strategy, an agricultural land capability study be prepared to support the proposal. The study includes a Land Use Conflict Risk Assessment and consideration of the relevant Ministerial Directions relating to rural land.

## **2. Agriculture in Wollondilly Shire**

Agriculture and rural lands play an important role within Wollondilly Shire.

According to Department of Primary Industries' Agricultural and Land Use Dashboard, the total gross value of agricultural commodities produced in the Wollondilly LGA in the 2020/21 financial year was over \$86 million.

The Shire is home to 184 agricultural businesses, with 570 people being employed in agriculture-related jobs. It is estimated a total of 363 square kilometres (or 36,300 ha) of land is used for agricultural production within the LGA, mostly for grazing.

The highest value agricultural commodities produced in the LGA include poultry, nursery plants, milk, cattle and calves, cabbages and eggs.

### 3. Site Description and Characteristics

The site comprises 3 adjoining lots, being Lots 1, 2 and 6 in DP 734561 and is shown outlined red in Figure 1. The total site area is 23.9 ha

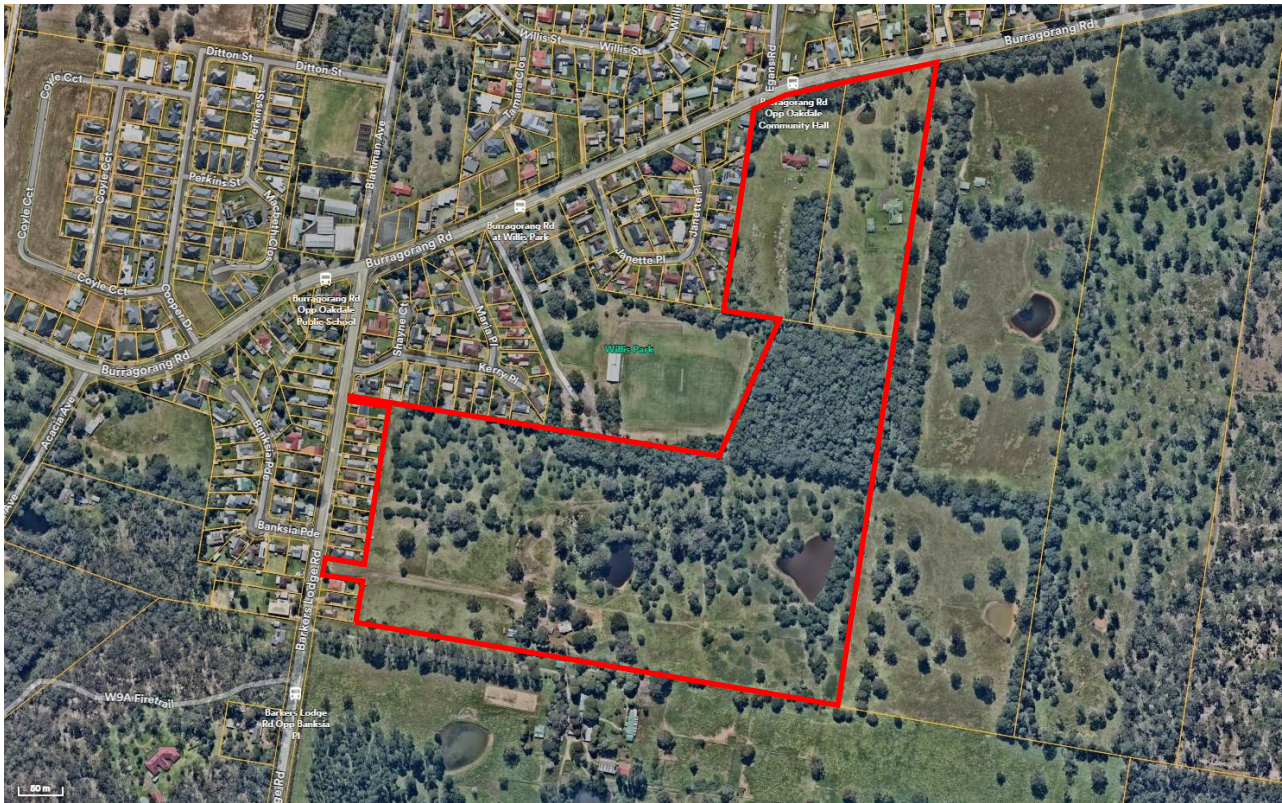


Figure 1 Subject Site (Source: Nearmap)

Lots 1 and 2 are approximately 2.59 ha and 2.97 ha in size respectively and front Burragorang Road. These lots are located opposite the Oakdale Community Hall and 6 residential dwellings. The western boundary of Lot 1 forms the rear boundary of 6 residential dwelling lots in Janette Place. It is noted that, despite their primary production zoning, Lots 1 and 2 would be better described as large lot residential from a land use perspective. Both lots contain large dwellings and detached sheds and mostly comprise mown grass and a scattering of trees. The south east corner of Lot 1 contains a more in-tact stand of native vegetation.

Lot 6 is accessible from Barkers Lodge Road, where it has 2 points of connection. The northern access handle, located adjacent to a dwelling at 1862 Barkers Lodge Road is 5 metres wide, while the southern access handle, located between 1836 and 1840 Barkers Lodge Road, is 20.1 metres wide. Of note, the southern access includes splays at its frontage to Barkers Lodge Road, suggesting provision was made at the time of subdivision for a public road to be constructed at a later date to facilitate subdivision of Lot 6.

The western boundary of lot 6 adjoins 15 residential dwelling lots along Barkers Lodge Road, while its northern boundary adjoins 8 residential dwelling lots in Kerry Place as well as the southern boundary of Willis Park, which contains sporting fields and other recreation facilities. Lot 6 contains a dwelling and various outbuildings as well as 2 farm dams. The lot is partially cleared but retains a significant amount of native vegetation, including 2 threatened ecological communities, namely Shale Sandstone Transition Forest and Sydney Turpentine-Ironbark Forest. Lot 6 is currently being utilised to agist a handful of horses.

The property to the south of Lot 6, which is 40 ha in area, is used for horse agistment, while the property to the east of Lot 6, which also adjoins Lot 2, is 16 ha in area and appears to be used for grazing purposes and also contains a dwelling.



## 4. Land capability

The site, again outlined red, is located within land mapped as Class 4 within DCCEEW Land and Soil Capability mapping as shown in Figure 2. This classification has “Moderate to severe limitations”.

Department of Primary Industries, Agriculture, noted in their pre-lodgement consultation response to Council that Class 4 land has potential for grazing and pasture improvement and that limitations can be managed.

As outlined above in Section 3, Lots 1 and 2 are ostensibly large lot residential properties, unlikely to be utilised for anything other than rural lifestyle purposes. As outlined in more detail in Section 5, Lot 6 contains areas of high value native vegetation, including 2.6 ha which has been excluded from grazing and retains dense vegetation. Consequently, while the overall site area is just under 24 ha, the area of land which may be suitable for grazing is less than 15 ha. The presence of scattered trees across Lot 6 may also limit the potential for pasture improvement initiatives.

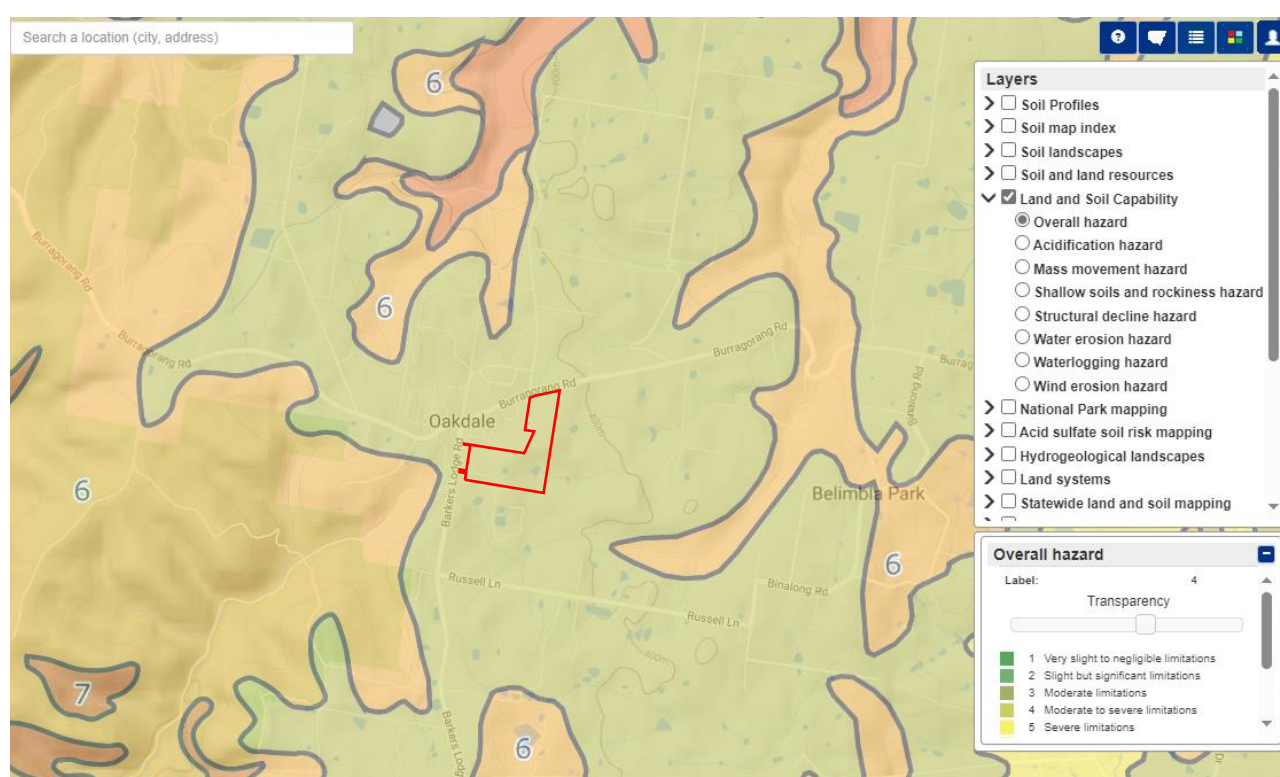


Figure 2 Land and Soil Capability (Source: DCCEEW)

It is noted that Oakdale does not contain any land mapped as Biophysical Strategic Agricultural Land, with the closest such land being located along the Nepean River some 15 km to the east of the site.

## 5. Biodiversity and environmental values

The site contains several native plant communities, including 2 threatened ecological communities as shown in Figure 3.



**Figure 3**      **Threatened Ecological Communities with the subject land (Biosis, 2024)**

The majority of the trees that constitute these threatened communities are proposed to be conserved under an environmental zoning (either E2 or E3) under the planning proposal, which is considered to be a more appropriate zoning than the current RU1 Primary Production zoning.

## 6. Rural land fragmentation and land use conflict

The location of the land, which directly adjoins existing residential development to the north and west, will ensure that fragmentation of rural land and the risk of land use conflict is minimised. As demonstrated in Figure 4, the proposed rezoning will not increase the length of interface between urban and rural-zoned land.

A rural land use conflict risk assessment (LUCRA) prepared for the site to support a previous planning proposal is included at Appendix A to this study. While the LUCRA identified several potential sources of land use conflict, it noted that the potential for conflict is insignificant in many cases due to mitigating factors including the site's connection to existing residential development. The assessment also noted that the low intensity nature of the adjoining rural uses means that they are unlikely to be significantly affect the subject land.

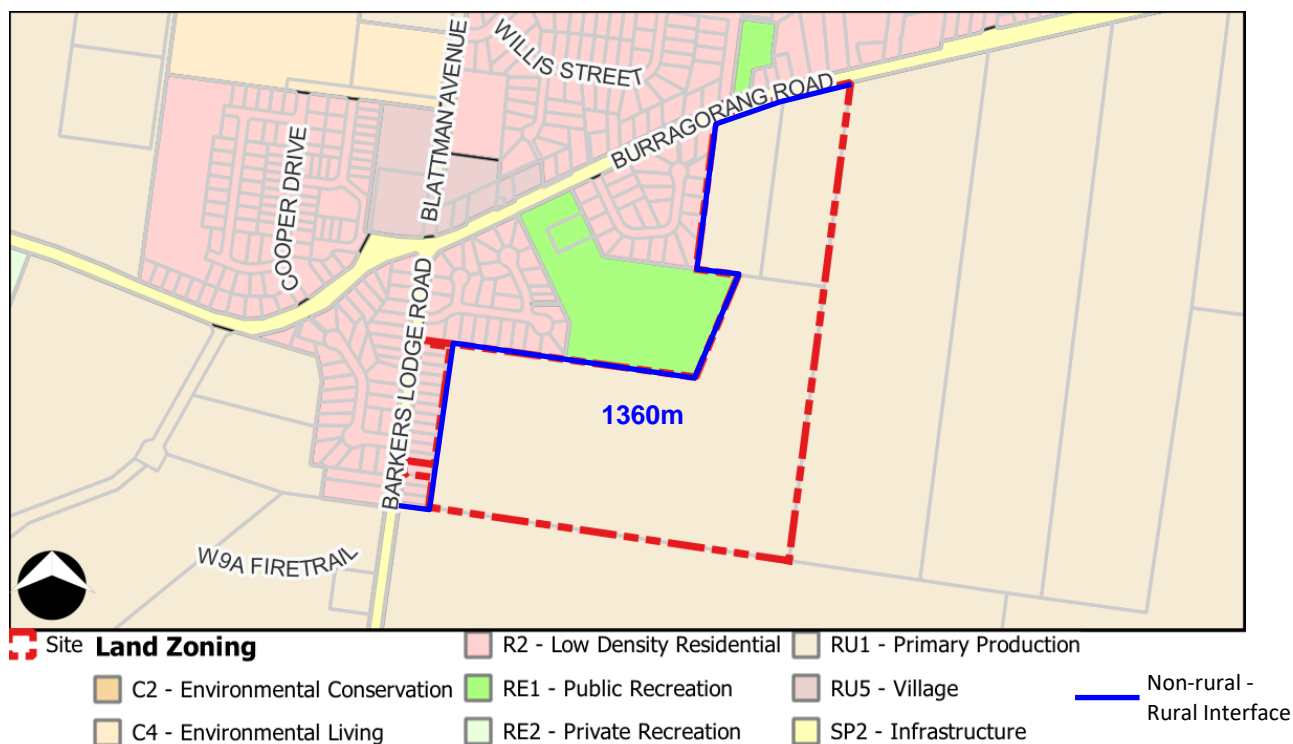
The assessment noted that sources of potential conflict which will require mitigation are:

- Potential impact of residential development and activity on sensitive habitat areas, which can be addressed through a combination of zoning, urban design, land management and education processes.
- Potential land use conflict with adjoining rural uses, which can be addressed through education of future residents and fencing.
- Bushfire hazard, which can be addressed by complying with design and management practices contained in Planning for Bushfire Protection.

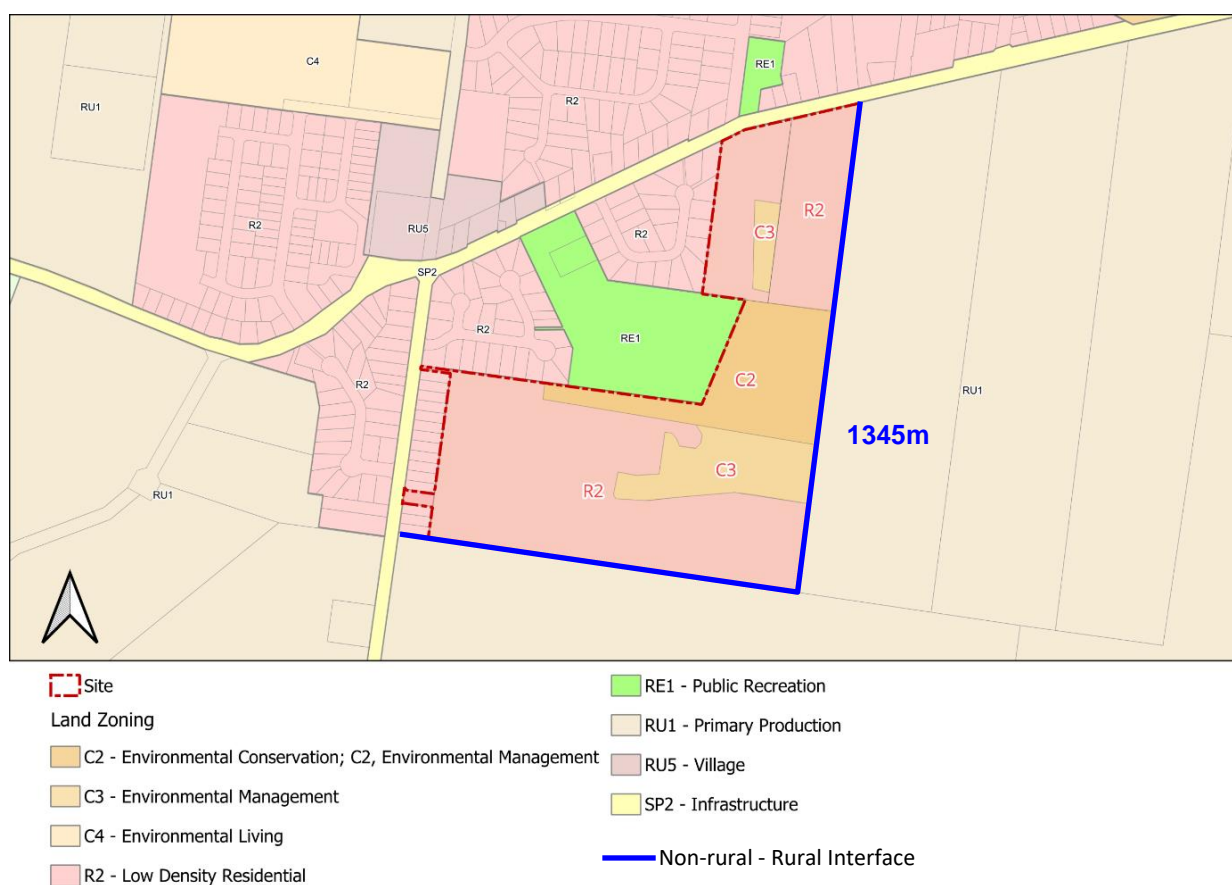
The assessment concluded that subject to appropriate risk mitigation measures being implemented through the planning, engineering design and construction stages, all potential land use conflict activities can be reduced to a "low" risk rating.



## Existing zoning



## Proposed zoning



**Figure 4 Urban-Rural Interface under existing and proposed zoning**

## 7. Rural infrastructure and industries

The proposed use of the site for a low density residential subdivision will not affect the viability of surrounding agricultural uses, which are limited to small-scale equine and grazing activities. The topography and soils within the site itself are such that the site is not suited to high-value agricultural production. The site is also not considered suited to infrastructure or facilities supporting rural industries or supply chains.

## 8. Ministerial Directions

Planning Proposals are to consider a suite of Local Planning Directions (also referred to as Ministerial Directions) which are grouped by focus areas. Focus area 9 relates to Primary Production and contains 2 directions of relevance to the proposal. These directions, and an assessment of the proposal against each, are contained in Appendix B to this study.

The proposal was found to be inconsistent with Direction 9.1 Rural Zones, however the inconsistency is justified by this study. The proposal was found not to be inconsistent with Direction 9.2 Rural Lands.

## 9. Conclusion

This study has been prepared to support a planning proposal seeking to rezone approximately 24 ha of land at Oakdale from zone RU1 Primary Production to a combination of low density residential and environmental zones.

The study has found that the subject site has limited value for rural purposes due to its relatively small lot sizes, proximity to residential areas, the presence of areas of high value native vegetation and limited soil capability.

A land use conflict risk assessment has concluded that, in practice, the risk for land use conflict is insignificant in many cases. All potential land use conflict activities can be reduced to a “low” risk rating through the implementation of appropriate mitigation measures.

# **Appendix A**

## Rural Land Use Conflict Assessment

**GYDE**

# **Appendix B**

Ministerial Directions – Primary Production

**GYDE**



## Local Planning Direction 9.1 – Rural Zones

### Objective

The objective of this direction is to protect the agricultural production value of rural land.

### Application

This direction This direction applies when a relevant planning authority prepares a planning proposal that will affect land within an existing or proposed rural zone (including the alteration of any existing rural zone boundary).

### Direction 9.1

(1) A planning proposal must:

- a) not rezone land from a rural zone to a residential, employment, mixed use, SP4 Enterprise, SP5 Metropolitan Centre, W4 Working Waterfront, village or tourist zone.
- b) not contain provisions that will increase the permissible density of land within a rural zone (other than land within an existing town or village).

### Consistency

A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are:

- a) justified by a strategy approved by the Planning Secretary which:
  - i. gives consideration to the objectives of this direction, and
  - ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or
- b) justified by a study prepared in support of the planning proposal which gives consideration to the objectives of this direction, or
- c) in accordance with the relevant Regional Strategy, Regional Plan or District Plan prepared by the Department of Planning and Environment which gives consideration to the objective of this direction, or
- d) is of minor significance.

### Assessment of Planning Proposal against Direction

The planning proposal is inconsistent with this direction as it proposes to rezone land from RU1 Primary Production to R2 Low Density Residential.

The inconsistency is justified by this Agricultural Land Capability Study which gives due consideration to the objectives of the direction.

The inconsistency is also considered to be of minor significance for the following reasons:

- The proposal only seeks to rezone approximately 17 ha of land to a residential zone
- 2 of the 3 lots (totalling 5.6 ha) that make up the site constitute de-facto large lot residential development.
- The area of land proposed to be rezoned to a residential zone that could be considered rural from a land use perspective is approximately 10.8 ha only.

## Local Planning Direction 9.2 – Rural Lands

### Objective

The objectives of this direction are to:

- a) protect the agricultural production value of rural land,
- b) facilitate the orderly and economic use and development of rural lands for rural and related purposes,
- c) assist in the proper management, development and protection of rural lands to promote the social, economic and environmental welfare of the State,
- d) minimise the potential for land fragmentation and land use conflict in rural areas, particularly between residential and other rural land uses,
- e) encourage sustainable land use practices and ensure the ongoing viability of agriculture on rural land,
- f) support the delivery of the actions outlined in the NSW Right to Farm Policy.

### Application

This direction applies when a relevant planning authority prepares a planning proposal for land outside the local government areas of Lake Macquarie, Newcastle, Wollongong and LGAs in the Greater Sydney Region (as defined in the Greater Sydney Commission Act 2015) other than Wollondilly and Hawkesbury, that:

- a) will affect land within an existing or proposed rural or conservation zone (including the alteration of any existing rural or conservation zone boundary) or
- b) changes the existing minimum lot size on land within a rural or conservation zone.

### Direction 9.2

(1) A planning proposal must:

- a) be consistent with any applicable strategic plan, including regional and district plans endorsed by the Planning Secretary, and any applicable local strategic planning statement
- b) consider the significance of agriculture and primary production to the State and rural communities
- c) identify and protect environmental values, including but not limited to, maintaining biodiversity, the protection of native vegetation, cultural heritage, and the importance of water resources
- d) consider the natural and physical constraints of the land, including but not limited to, topography, size, location, water availability and ground and soil conditions
- e) promote opportunities for investment in productive, diversified, innovative and sustainable rural economic activities
- f) support farmers in exercising their right to farm
- g) prioritise efforts and consider measures to minimise the fragmentation of rural land and reduce the risk of land use conflict, particularly between residential land uses and other rural land use
- h) consider State significant agricultural land identified in chapter 2 of the State Environmental Planning Policy (Primary Production) 2021 for the purpose of ensuring the ongoing viability of this land
- i) consider the social, economic and environmental interests of the community.

(2) A planning proposal that changes the existing minimum lot size on land within a rural or conservation zone must demonstrate that it:

- a) is consistent with the priority of minimising rural land fragmentation and land use conflict, particularly between residential and other rural land uses
- b) will not adversely affect the operation and viability of existing and future rural land uses and related enterprises, including supporting infrastructure and facilities that are essential to rural industries or supply chains
- c) where it is for rural residential purposes:
  - i. is appropriately located taking account of the availability of human services, utility infrastructure, transport and proximity to existing centres
  - ii. is necessary taking account of existing and future demand and supply of rural residential land.

## Consistency

A planning proposal may be inconsistent with the terms of this direction only if the relevant planning authority can satisfy the Planning Secretary (or an officer of the Department nominated by the Secretary) that the provisions of the planning proposal that are inconsistent are:

- (a) justified by a strategy approved by the Planning Secretary and is in force which:
  - i. gives consideration to the objectives of this direction, and
  - ii. identifies the land which is the subject of the planning proposal (if the planning proposal relates to a particular site or sites), or
- (b) is of minor significance.

## Assessment of Planning Proposal against Direction

The planning proposal is not considered to be inconsistent with this direction as per the following assessment against the principles listed under item (1) of this direction. (Note that item (2) does not apply as the planning proposal does not change the existing minimum lot size on land within a rural or conservation zone).

Direction / principle	Comment
(1) A Planning Proposal must:	
a. be consistent with any applicable strategic plan, including regional and district plans endorsed by the Planning Secretary, and any applicable local strategic planning statement	The proposal is considered consistent with relevant directions within the Western City District Plan and Wollondilly Local Strategic Planning Statement, as outlined in sections 6.1 and 6.2 of the planning proposal.
b. consider the significance of agriculture and primary production to the State and rural communities	While it is acknowledged that agriculture and primary production are of vital significance to the State and rural communities, including within Wollondilly Shire, the site is not used for primary production or agriculture (apart from the agistment of a small number of horses on Lot 6).

- c. identify and protect environmental values, including but not limited to, maintaining biodiversity, the protection of native vegetation, cultural heritage, and the importance of water resources

A Biodiversity Development Assessment Report has been carried out for the site (refer to Appendix E of the Planning Proposal). The findings of that report have informed the proposed zoning of the site, which will conserve the majority of existing vegetation under an Environmental Conservation or Environmental Management zone (6.74 ha or 28% of the site area). This area will be subject to a vegetation management plan to be funded in perpetuity under a community title scheme. Unavoidable clearing will be offset in accordance with the NSW biodiversity offset scheme.

Archaeological and Aboriginal Cultural Heritage Assessment (ACHA) reports have been prepared for the site by consultants Biosis in consultation with 20 registered Aboriginal parties (RAPs) (see Appendix H of the Planning Proposal).

The ACHA notes that 2 Aboriginal Heritage Information Management System (AHIMS) sites AHIMS 52-2-4494/BR-IF-01 and AHIMS 52-2-4493/BR-IF-02 are located within the study area - both isolated artefact sites. Neither site was able to be located during the archaeological survey carried out for the project, and no further Aboriginal sites or objects were identified during the survey

A Water Cycle Management Strategy Report incorporating a Water Cycle Management Plan (WCMP) and flood assessment has been prepared for the site by Colliers International Engineering & Design (NSW) (see Appendix J of the Planning Proposal).

Given the site's location within the Sydney drinking water catchment, Council and Water NSW require that development have a Neutral or Beneficial Effect (NorBE) on water quality.

The WCMP employs a combination of rainwater tanks, gross pollutant traps and bioretention basins to treat stormwater runoff from the site. The industry-standard MUSIC model was used to demonstrate that the WCMP would reduce mean annual pollutant loads by more than 50 percent, satisfying NorBE requirements.

The details of the water quality treatment train are subject to further detailed design and modelling at DA stage, however the preliminary assessment of Water Quality measures undertaken for the site shows that the treatment train of distributed rainwater tanks in combination with end-of-line bioretention and detention basins will be sufficient to satisfy the water quality targets set by Council guidelines.



<p>d. consider the natural and physical constraints of the land, including but not limited to, topography, size, location, water availability and ground and soil conditions</p>	<p>The subject site contains areas of relatively intact native vegetation in addition to cleared areas and areas containing scattered trees and/or low condition vegetation.</p> <p>The site contains 3 farm dams in total. Ephemeral 1<sup>st</sup> order watercourses are mapped within Lot 1 and Lot 6.</p> <p>A <u>Preliminary Geotechnical Assessment</u> was prepared for the subject site by Geo-Environmental Engineering Consulting, included at <i>Appendix L</i>. The report found that the site is underlain by the Blacktown Soil Landscape Group, which typically comprise heavy clays, have low fertility and may be strongly acidic.</p> <p>A geotechnical assessment has considered soil conditions on the site and determined that the soil comprises heavy clays with low fertility and high acidity.</p> <p>NSW Land and Soil Capability Mapping indicates the site is located in an area classified as Class 4 “moderate to severe limitations”.</p>
<p>e. promote opportunities for investment in productive, diversified, innovative and sustainable rural economic activities</p>	<p>The proposal is not inconsistent with the promotion of investment in rural economic activities.</p>
<p>f. support farmers in exercising their right to farm</p>	<p>The proposal is not inconsistent with farmers exercising their right to farm, being deemed compatible with the existing rural operations of adjoining landowners.</p>
<p>g. prioritise efforts and consider measures to minimise the fragmentation of rural land and reduce the risk of land use conflict, particularly between residential land uses and other rural land use</p>	<p>The location of the land, which directly adjoins existing residential development to the north and west, will ensure that fragmentation of rural land and the risk of land use conflict is minimised. As demonstrated in Figure 8 of this Planning Proposal, the proposed rezoning will not increase the length of interface between urban and rural-zoned land.</p>
<p>h. consider State significant agricultural land identified in chapter 2 of the State Environmental Planning Policy (Primary Production) 2021 for the purpose of ensuring the ongoing viability of this land</p>	<p>At the time of writing, there was no State significant agricultural land identified in the SEPP.</p> <p>It is also noted that there is no regionally mapped biophysical strategic agricultural land (BSAL) within or adjacent to the Study Area.</p>
<p>i. consider the social, economic and environmental interests of the community.</p>	<p>The proposal has had regard to the social, economic and environmental interests of the community. The social and economic benefits of the proposed housing and additional local population it would support are considered to outweigh any disbenefits from the loss of rural zoned land.</p>

	<p>The proposal includes the offer of a voluntary planning agreement to upgrade community infrastructure including local parks and sporting facilities, shared pathways and the Oakdale Community Hall.</p> <p>An economic assessment has shown that the housing and increased population that would result from the proposed rezoning would generate appreciable benefits to the local commercial uses currently operating in Oakdale, helping to make these businesses more sustainable and providing potential to attract new businesses to the local area.</p> <p>High value environmental land will be conserved under appropriate zoning and ongoing management regimes.</p>
<p>(2) A planning proposal that changes the existing minimum lot size on land within a rural or conservation zone must demonstrate that it:</p>	
<p>a. is consistent with the priority of minimising rural land fragmentation and land use conflict, particularly between residential and other rural land uses</p>	<p>The planning proposal does not change the existing minimum lot size on land within a rural or conservation zone.</p>
<p>b. will not adversely affect the operation and viability of existing and future rural land uses and related enterprises, including supporting infrastructure and facilities that are essential to rural industries or supply chains</p>	
<p>c. where it is for rural residential purposes:</p>	
<p>i. is appropriately located taking account of the availability of human services, utility infrastructure, transport and proximity to existing centres</p> <p>ii. is necessary taking account of existing and future demand and supply of rural residential land.</p>	