



**Goulburn Mulwaree Council**

**Tarago Village Housing Strategy**

**June 2022**

Version	Comment	Date
1	For Exhibition	October 2021
2	Adopted Resolution 2022/215	21 June 2022



p: (02) 4823 4444  
e: [council@goulburn.nsw.gov.au](mailto:council@goulburn.nsw.gov.au)  
w: [www.goulburn.nsw.gov.au](http://www.goulburn.nsw.gov.au)

Locked Bag 22, Goulburn NSW 2580

# Contents

<a href="#">1</a>	<a href="#">Executive Summary</a> .....	4
<a href="#">2</a>	<a href="#">Purpose of this Strategy</a> .....	6
<a href="#">3</a>	<a href="#">Locality Map</a> .....	7
<a href="#">4</a>	<a href="#">Regional Context</a> .....	8
<a href="#">5</a>	<a href="#">Tarago Snapshot</a> .....	9
<a href="#">6</a>	<a href="#">Tarago – Strengths/Weaknesses</a> .....	10
<a href="#">7</a>	<a href="#">Analysis</a> .....	12
<a href="#">7.1</a>	<a href="#">Geography</a> .....	12
<a href="#">7.2</a>	<a href="#">Goulburn Mulwaree Local Environmental Plan 2009</a> .....	13
<a href="#">7.3</a>	<a href="#">Environment and Biodiversity</a> .....	15
<a href="#">7.4</a>	<a href="#">Water Supply</a> .....	16
<a href="#">7.5</a>	<a href="#">Effluent Management</a> .....	17
<a href="#">7.6</a>	<a href="#">Bushfire Hazard</a> .....	18
<a href="#">7.7</a>	<a href="#">Flooding</a> .....	19
<a href="#">7.8</a>	<a href="#">Slope</a> .....	20
<a href="#">7.9</a>	<a href="#">Site Contamination – Lead</a> .....	21
<a href="#">8</a>	<a href="#">Potential Investigation Areas – Urban Infill</a> .....	22
<a href="#">9</a>	<a href="#">Potential Investigation Areas – Urban Expansion</a> .....	24
<a href="#">10</a>	<a href="#">Conclusion and Next Steps</a> .....	31

## Executive Summary

Villages offer an alternate lifestyle to the larger towns, but are also limited due to distance, size, and servicing. For instance, the majority of the Goulburn Mulwaree local government area (LGA) is located within the Sydney drinking water catchment (SDWC), however, the only urban areas which have reticulated water and sewer services are Goulburn and Marulan. This means that within villages, urban density is restricted to the environmental capacity of individual lots for the provision of on-site services such as effluent disposal whilst maintaining water quality in the drinking water catchment or avoiding the contamination of existing bores used to supplement residential water supply.

Given the above context, the growth of villages is considered in relation to the environmental capacity of the locality rather than for the provision of land supply to meet the overall demand for housing in the Goulburn Mulwaree LGA. Land supply is in effect already limited due to fundamental constraints such as the lack of reticulated water and sewer, water quality management, bushfire hazard, flooding, slope, access etc.

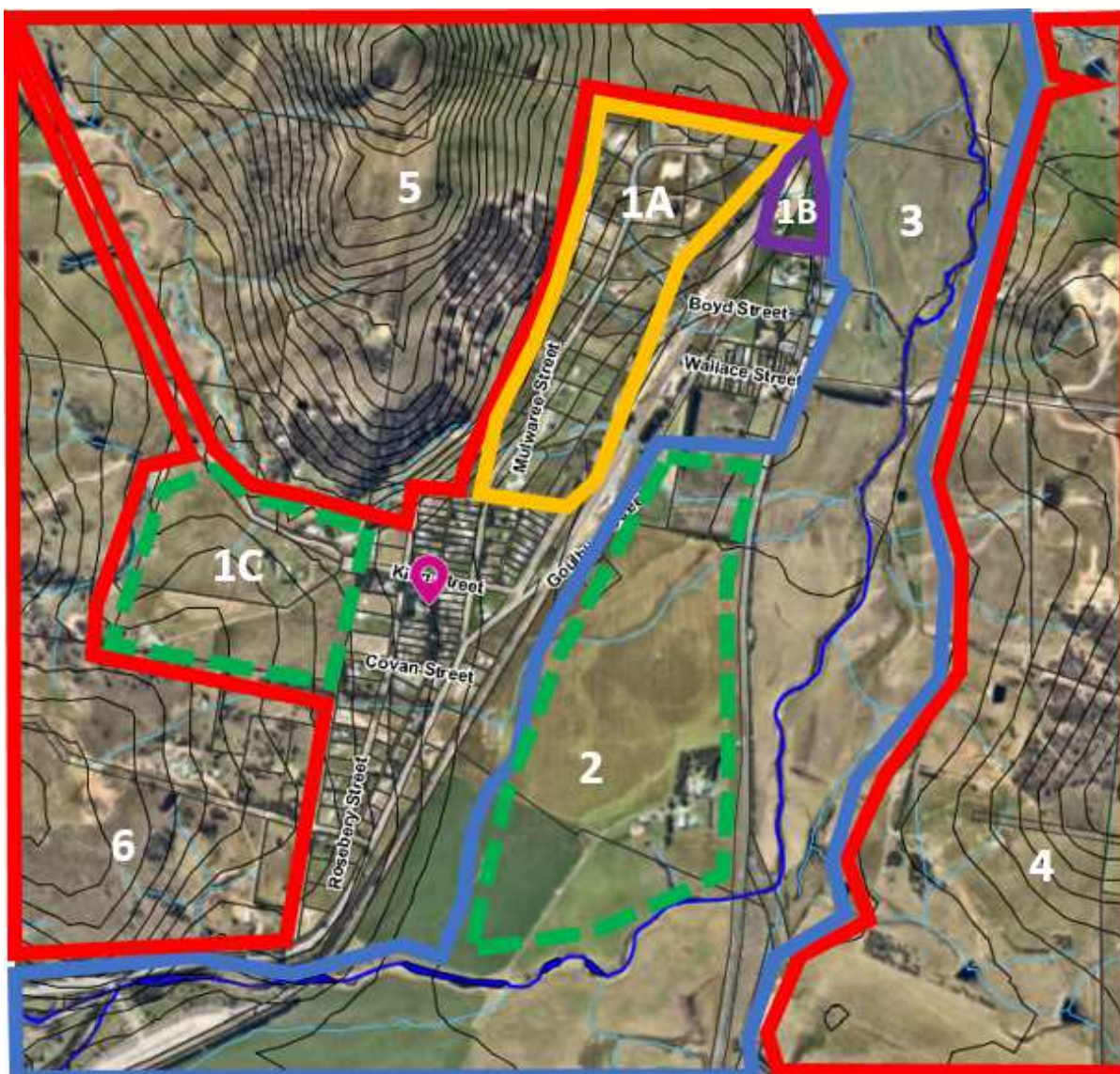
The main factors in determining the potential for growth in Tarago are the identification of lot sizes which can support a dwelling and on site effluent disposal systems. This is further complicated by the need to maintain water quality in the SDWC and the potential for contamination of local bores.

The Mulwaree River and local groundwater cannot be relied upon to provide a consistent supply of water for a reticulated system. Further complications also arise as the costs of adding supplementary water sources adds to the cost of raw water treatment. Should reticulated water be proposed, then water usage would increase and reticulated sewer would also be required.

Reticulated sewer is limited as the need to discharge treated water is problematic, as the Mulwaree River lacks consistent natural flows meaning that discharged waste water could pond and negatively affect the water quality of the river.

Costs associated with reticulated water and sewer systems would be relatively high and would require connection of all residents. Given that existing residents have already paid for on site services, and given the limited potential for significant increases in density in the village, such systems may not be feasible (for either Council or the residents).

Constraints are also likely due to sections of surrounding area affected by relatively steep slopes, or conversely, flat areas in vicinity of the Mulwaree River, likely to be affected by flooding or a high water table (limiting the effectiveness of on site sewer management) .



This Strategy has applied the known constraints to land use to various precincts in and around Tarago. Criteria used for assessment of suitable areas include:

- Are contiguous to existing RU5 Village zoned land.
- Are excluded from areas where slope is greater than 15%.
- Proximity to water courses i.e. suitable buffer distances for onsite effluent management areas (EMAs) to water courses.
- Drainage and elevation in relation to the Mulwaree flood plain/flood potential.
- Lack of obvious biodiversity value.
- Bushfire hazard and connectivity to existing road network for evacuation.
- Proximity to railway line (noise/potential contamination corridor).
- Proximity to haulage routes.
- Avoidance of State significant agricultural land.
- Exclusion of Crown Land.

The most suitable area for village expansion is Precinct 1C (**shown left**).

Further individual site specific studies would be required to determine suitability for any extension to the RU5 Village zone, and prior to any reduction of minimum lot size.

# Purpose of this Strategy

## Background

A previous Tarago Village Plan (2017) was prepared by Elton Consulting for Veolia. This earlier Strategy was intended to provide guidance on the growth of Tarago in relation to the community seeking grants from the Veolia Foundation. Whilst the Strategy considered future growth in relation to residential development and the RU5 Village zone it is unclear what data/information supported the conclusions reached. Areas identified for growth in this earlier Strategy (upon further investigation) are generally deemed unsuitable for a variety of reasons (noting this area is largely identified as that land zoned RU6 Transition which is flood liable, low lying with a high water table and is located on State significant agricultural land). The Strategy does provide a basis for planning moving forward in relation to potential capital works projects, urban design/street landscaping and recreational/open space planning.

The *Goulburn Mulwaree Local Strategic Planning Statement* (2020) and *Goulburn Mulwaree Urban and Fringe Housing Strategy* (2020) have identified that housing supply is to be focused on existing serviced centres (Goulburn and Marulan). However, it is understood that existing villages also play a support role within the rural catchments around Goulburn and Marulan. Furthermore, growth is important for sustaining existing services and ensuring the further development of villages into the future. Villages offer an alternate lifestyle to the larger towns, but are also limited due to distance, size, and servicing. For instance, the majority of the Goulburn Mulwaree LGA is located within the Sydney drinking water catchment, however, the only urban areas which have reticulated water and sewer services are Goulburn and Marulan. This means that within villages, urban density is restricted to the environmental capacity of individual lots for the provision of on-site services such as effluent disposal whilst maintaining water quality in the drinking water catchment or avoiding the contamination of existing bores used to supplement residential water supply.

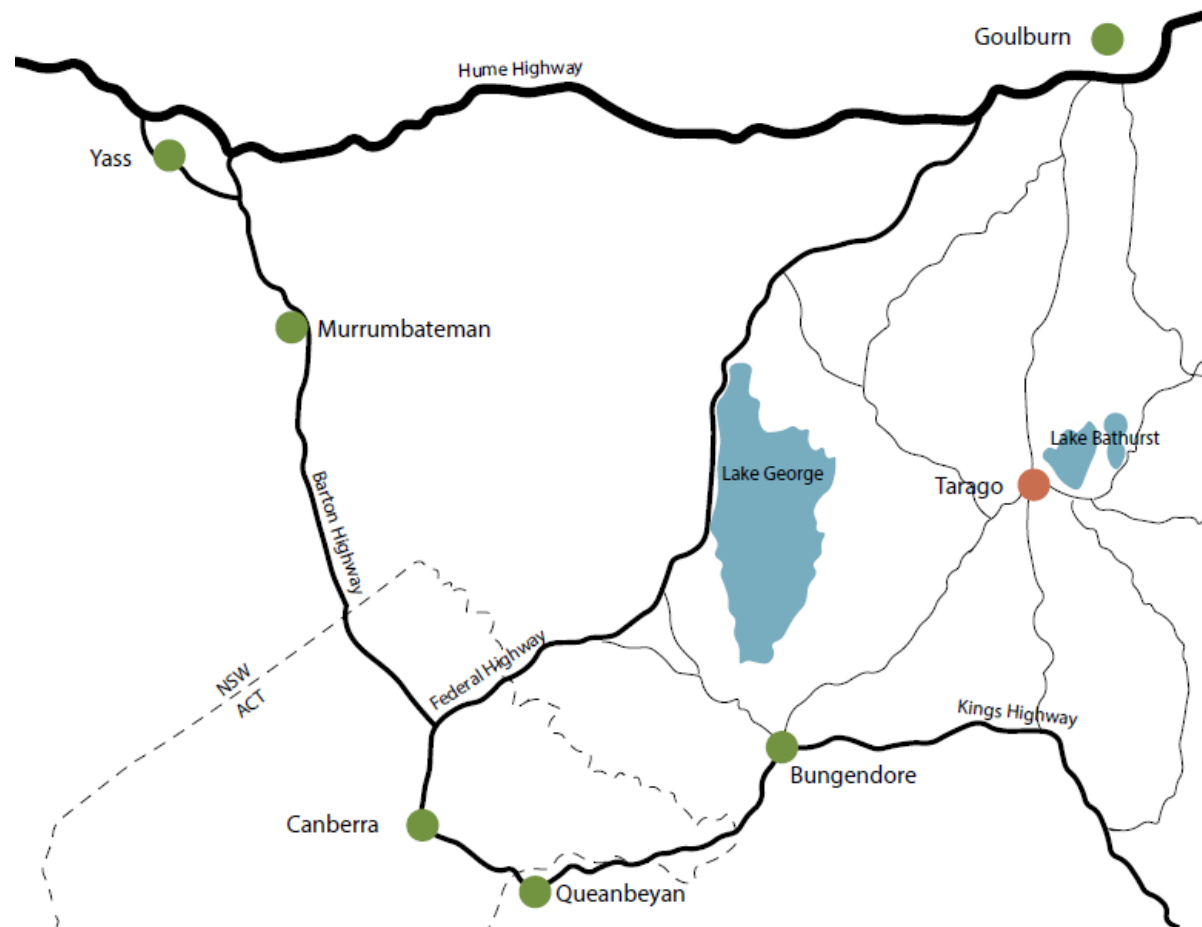
Given the above context, the growth of villages is considered in relation to the environmental capacity of the locality rather than for the provision of land supply to meet the overall demand for housing in the Goulburn Mulwaree local government area (LGA). Land supply is in effect already limited due to fundamental constraints such as the lack of reticulated water and sewer, water quality management, bushfire hazard, flooding, slope, access etc.

## Purpose

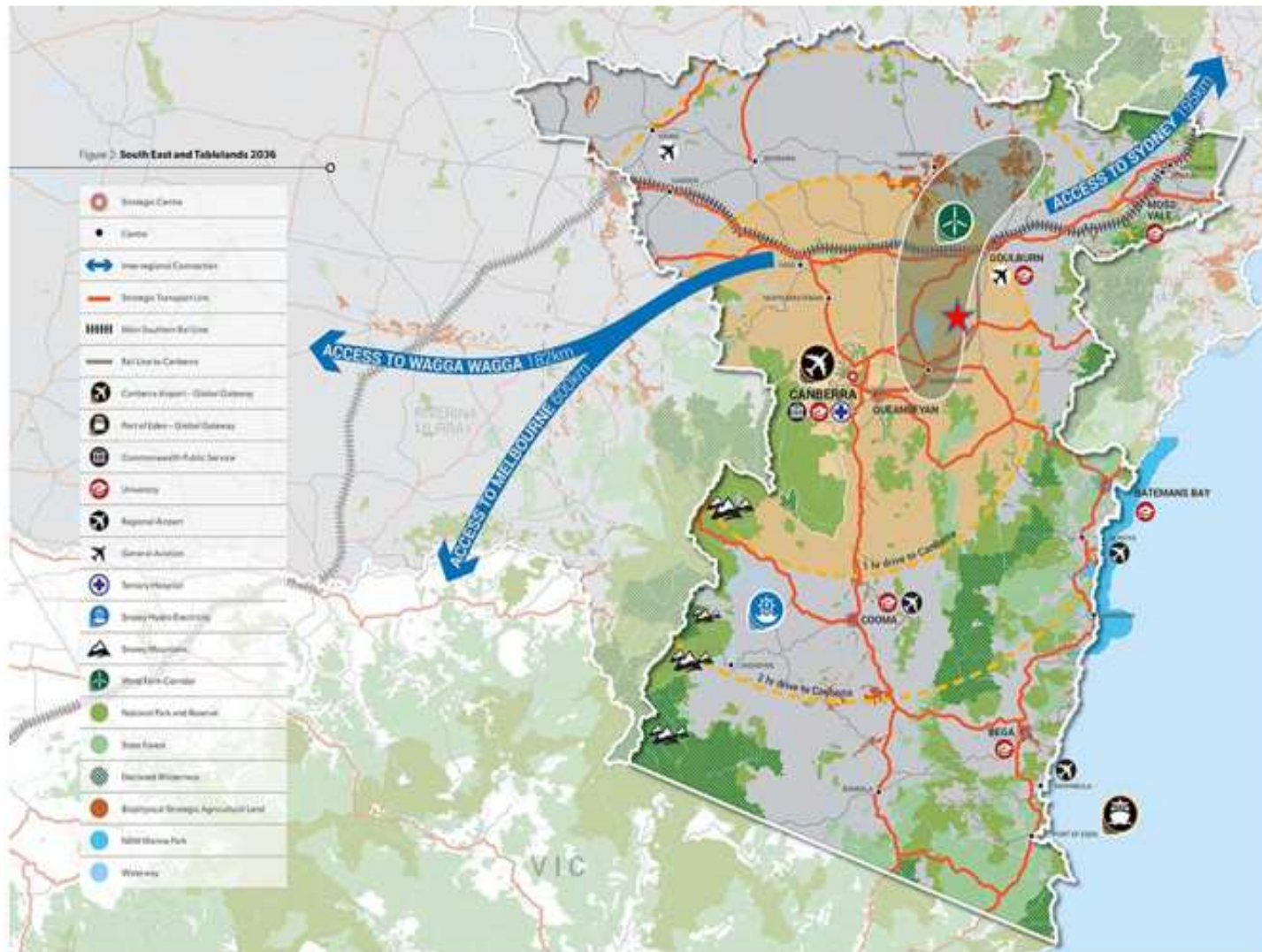
This Strategy:

- assesses land use constraints and opportunities for housing; and
- identifies areas for urban/village centre growth potential (i.e expansion of the RU5 Village zone).

## Locality Map












## Regional Context



★ Tarago

## Tarago Snapshot

<b>Population</b> 	Total Population (incl. rural catchment) – 425 people and 195 dwellings in 2016.	<b>Land Zones</b> 	RU5 Village with RU2 Rural Landscape to W and NW; IN3 Heavy Industrial to SW; RU6 Transition to S and SE and E3 Environmental Management south of the RU6; RU1 Primary Production to East with E3 Environmental Management near Lake Bathurst.
<b>Internet Connection</b> 	As at 2016 census only 71% had internet connectivity.	<b>Water Supply</b> 	Bores and water tanks – no reticulated system.
<b>Unemployment</b> 	–2.3% (lower than GM percentage of 6.3%); higher than LGA percentages of older workers and pre retirees and empty nesters and retirees.	<b>Sewer Supply</b>	Individual septic systems/on site effluent management.
<b>Lot sizes (LEP minimum)</b>	Lot sizes range from 1500m <sup>2</sup> to 1ha (NW of Village) and 20ha (SW village).	<b>Haulage Routes &amp;</b> 	Heavy haulage routes and rail through village.
<b>Land contamination</b> 	Potential lead contamination along haulage routes and railway line.	<b>Bushfire hazard</b>	The area surrounding Tarago is identified as bushfire prone, a large portion of the village area is also identified as bushfire prone.
<b>Heavy Industry</b> 	Proximity to IN3 Heavy Industrial (Veolia and Heron sites)	<b>Flooding</b> 	Proximity to Mulwaree River may result in flooding in lower areas around the village. Lack of formalized drainage within the village may also result in overland flows

## Tarago – Strengths/Weaknesses

Strengths	Weaknesses
<p><b>Rail</b>            Rail -Tarago is located along a railway line linking the Main Southern Line between Sydney and Melbourne to Canberra. Tarago has its own railway station.</p>	<p><b>Rail</b>            Rail - The train timetable does not provide for regular stops (the train needs to be booked to stop in advance). The timetable does not provide for commuters (trains either too late or too early). The railway line has also been historically used for freight with some contamination risk.</p>
<p><b>Proximity to Employment</b>            Close proximity to heavy industry and extractives e.g. Veolia and Heron. Some rural work may also be available.            Within commuting distance by car to Goulburn, Canberra and Queanbeyan.</p>	<p><b>Proximity to Employment</b>            Limited range of jobs associated with nearby rural or heavy industry. Reliance on local heavy industry/extractives.            Internet coverage also an issue for working from home. Otherwise main employment would be based in larger centres such as Goulburn, Canberra or Queanbeyan.</p>
<p><b>Services/Facilities</b>            Primary School; Pre-school;            Church; Hall; Park/tennis courts; Showground; Pony Club            Telephone/internet/Electricity;            Police Station; Rural Fire Station;            Train/bus service (limited to school start/finish times).            Council Waste collection –recycling only, rural waste vouchers for general waste at Lumley Road Transfer Station;            Loaded Dog Hotel;            Service Station/Australia Post/Take away;            Real Estate Agent;            Community Groups: CWA; Men’s Shed; Progress Association (Tadpai); Show Society; Pony Club; Land care Group.</p>	<p><b>Services/Facilities</b>            No reticulated water system.            No reticulated sewer – on site sewer systems only. Growth resulting in increased on-site septic systems may result in impacts on groundwater collection (bores) resulting from on-site sewer contamination. A relatively high water table in some locations limits on site effluent disposal systems.            Telephone/internet – only 71% coverage as at the last census. This will impact those wanting to work from home, home businesses, education, and emergency assistance.            Limited street drainage system (small sections only such as within the north Mulwaree Street area) other than table drains, possible issues with storm water and overland flows.</p>

Strengths	Weaknesses
<p><b>Natural Hazards</b> Some higher sections of Tarago would be likely to be above the flood level (1% AEP and PMF). However, no flood studies are available at this stage to determine where the flood levels reach and impacts on access in/out of the village for evacuation etc.</p> <p>A central section of the village is not identified as bushfire prone.</p>	<p><b>Natural Hazards</b> Flooding on low lying areas in proximity to Mulwaree River. Access to village would be cut from Goulburn via Braidwood Road during periods of inundation.</p> <p>Lack of formalised drainage infrastructure can lead to overland flows inundating Bungendore Road from surround slopes.</p> <p>Locality is identified as bushfire prone land around central section of the village.</p>
<p><b>Environment</b> Proximity to Mulwaree River, Lake George and Lake Bathurst.</p> <p>Biodiversity – Precincts 1 and 2 (Investigation Areas) are relatively free of native vegetation/habitat.</p>	<p><b>Environment</b> Steeply sloping sections contain remnant areas of native vegetation.</p> <p>Mulwaree River flood plain/flooding.</p> <p>Surrounded by bushfire prone land.</p>
<p><b>Contamination</b> Lead contamination is likely to be restricted to rail/haulage route corridors.</p>	<p><b>Contamination</b> Proximity to rail, haulage routes and heavy industry increases the risk of site contamination.</p> <p>There is known contamination from Transport for NSW works on the side line for the railway. Lead contamination is also spread by wind/dust and through overland flows, so some contamination may be present outside the rail/haulage route corridor.</p>



## Analysis

### Geography

Tarago village is located in a generally north south lineal arrangement which mainly follows the railway line to the west. A small section of the village along Wallace and Boyd Streets expands to the east around road network connectors between Bungendore Road/Collector Road, Braidwood Road and, Lumley Road.

The railway line itself runs in a predominantly north/south alignment through this valley and is roughly parallel to the Mulwaree River.

The area containing the Mulwaree River is relatively flat (as shown in the diagram with 5m contours). The area is located within the Sydney drinking water catchment. Lake Bathurst is located to the north west of the village and has an immediate catchment which is largely separate from the immediate catchment for Tarago and the Mulwaree at that point.

The land starts rising above the flood plain of the river to the west which is likely why the railway line is located where it is (to both take advantage of the relative flat area and but with slightly increased elevation to avoid some levels of flooding).

Ridges rising to the west/ south west of the village would assist with protecting the village from heavy industry located to the south west. This would also assist with reducing visual and noise impacts. However, prevailing westerly and south westerly winds at certain times of year would potentially carry odour (Veolia) and dust.



## Goulburn Mulwaree Local Environmental Plan 2009 - Zoning

The central village area has a RU5 Village zoning which permits a wide range of uses including:

Centre-based child care facilities; Community facilities; Dwelling houses; Light industries; Neighbourhood shops; Places of public worship; Recreation areas; Recreation facilities (indoor); Recreation facilities (outdoor); Respite day care centres; and Schools.

The area to the west and north-west of the village is zoned RU2 Rural Landscape.

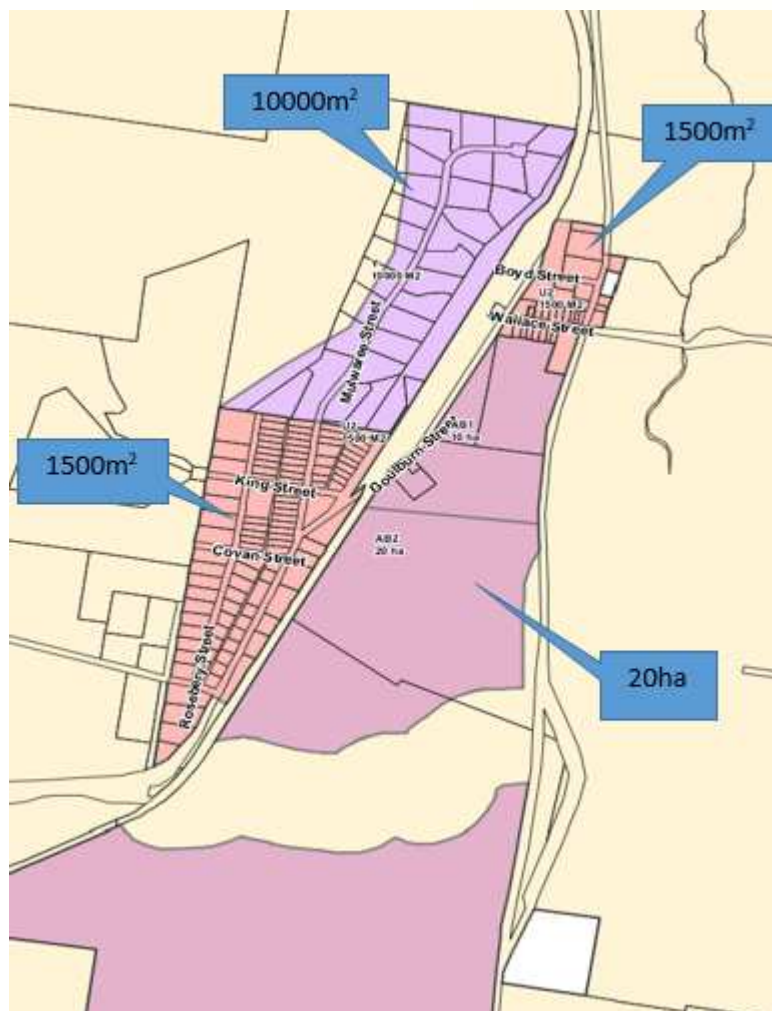
The area to the south west of the village is zoned IN3 Heavy Industrial and takes in the Veolia and Heron sites (former Woodlawn Mine).

A small area of RU6 Transition zone is located to the south of Wallace Street, east of the railway line and Bungendore Road and west of Braidwood Road.

E3 Environmental Management Zone is located immediately south of the RU6 Transition zone area also between Bungendore Road and Braidwood Road.

RU1 Primary Production is located to the east with E3 Environmental Management zone identified around Lake Bathurst.

**Zoning – GMLEP 2009**



## Goulburn Mulwaree Local Environmental Plan 2009: Minimum Lot Size

The older sections of the village have a minimum lot size under GM LEP 2009 of 1500m<sup>2</sup>. A newer section of the village (North Mulwaree Street precinct) to the north west of the village has a 10 000m<sup>2</sup> (1ha) minimum lot size.

The RU6 Transition zone has a 10ha minimum in the northern section (south of Wallace St) and a 20ha minimum in the southern section (north of the Mulwaree River).

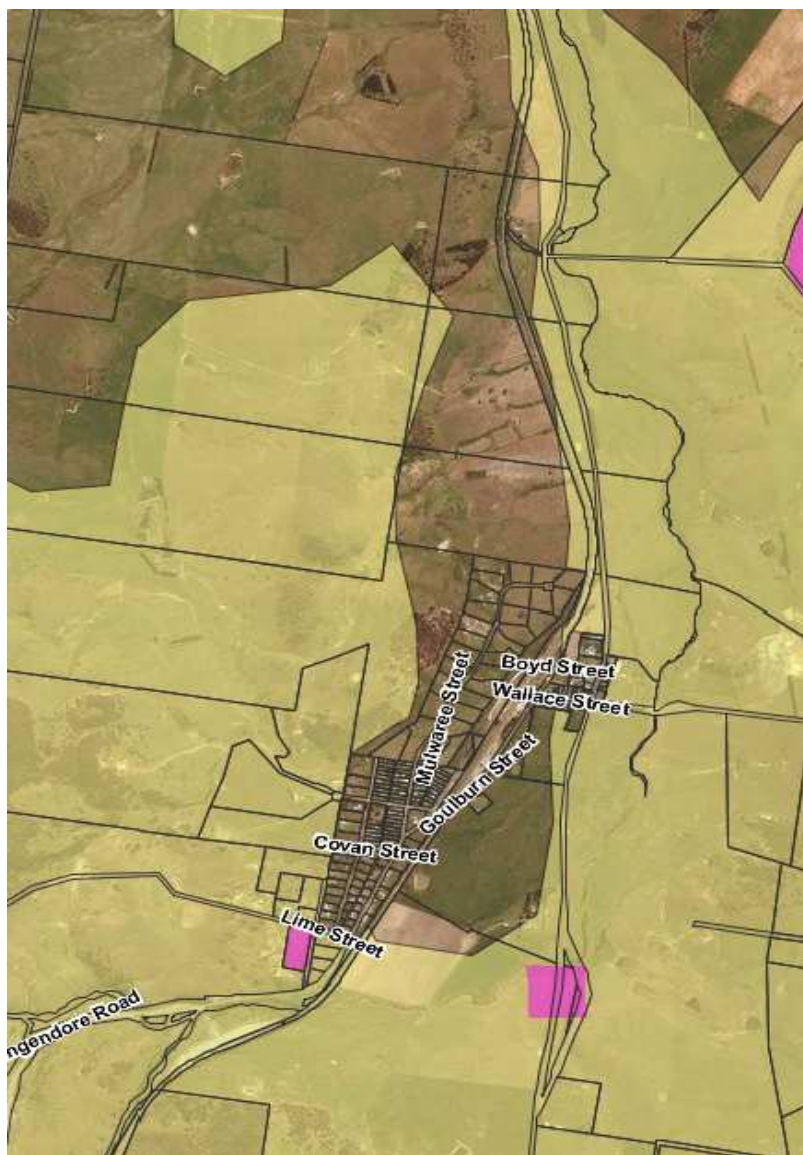
In rural villages (especially those within the Sydney drinking water catchment) minimum lot sizes are typically based on water quality impacts from development as a result of on- site effluent disposal systems. Different areas have varying capacity for on-site waste water management systems based on rainfall, soil type, slope, proximity to water courses etc.

A basic assessment of further growth capacity for the RU5 Village zoned area based upon existing zoning and minimum lot sizes in **Attachment 3** (excluding any consideration of individual site constraints) has found that:

- There are currently 47 lots that are vacant which meet the lot size requirements for a dwelling.\*
- There are currently only 24 lots with any subdivision potential, of the lots a maximum of 69 lots can be created – which is a net increase of 45 lots. \*

A further increase of 45 dwellings at an occupancy rate of 2.4 people per household would see a maximum population increase of 108 people. Census data from 2016 suggests a slightly lesser occupation rate of 2.17 people per household.

**Tarago (including some catchment outside the GM LGA) had only 195 dwellings in 2016 (census). The identified growth potential would be significant in relation to the existing number of dwellings and population. \* Note these figures are approximations only.**



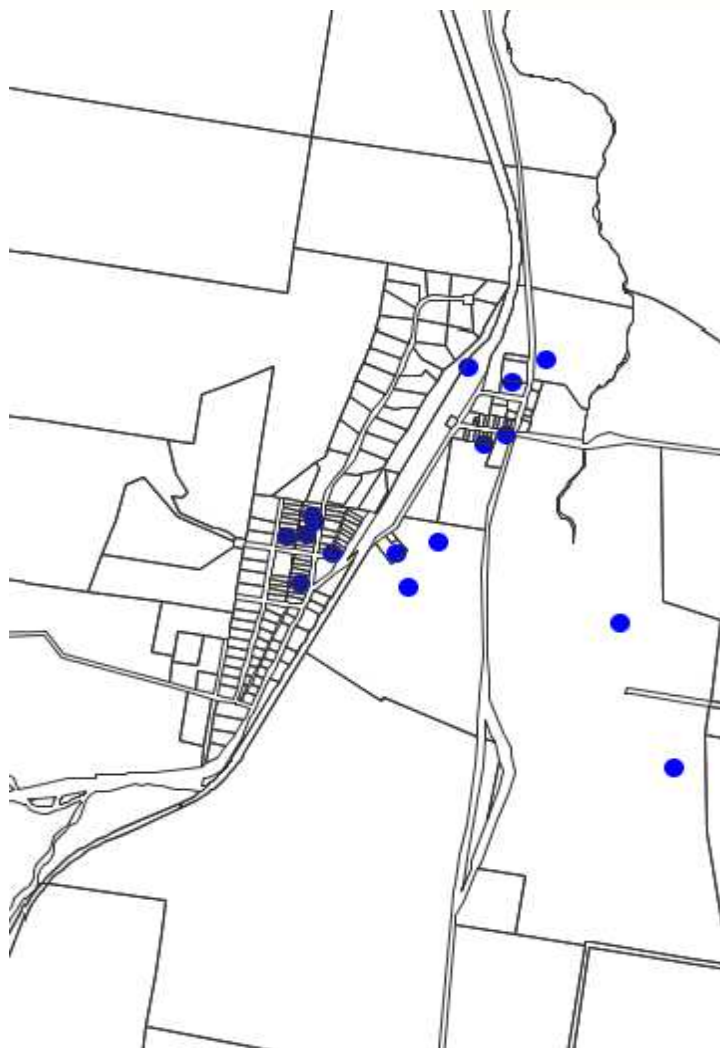
## Environment and Biodiversity

Areas to the east, west and south of Tarago are mapped under GM LEP 2009 as being of high environmental value (shown yellow on the map).

Areas such as the Mulwaree River and Lake Bathurst are also mapped on the NSW BOSET mapping as being of biodiversity value (**Attachment 1**).

The South East and Tablelands Regional Plan identifies a State and regional biodiversity corridor running north south between Bungendore and Goulburn.

The minimum searchable area on the BioNet Atlas is a 10 x 10 km square. Centring this on Tarago means the search area includes a large part of the nearby wetlands at Lake Bathurst, which has numerous recorded species listed as threatened species under the NSW BC Act and/or MNES under the Commonwealth EPBC Act. However BioNet mapping shows that there are no recent records for any of these in the immediate vicinity of Tarago Village. The majority of threatened species known or predicted to be present in the general area by database searching are either wetlands species or woodland/forest species that are not likely to be significantly impacted by development of previously cleared land.



## Water Supply

There is no reticulated water system in place for the village of Tarago. Water is currently sourced on site from bores (as indicated left on the map in blue) or from roof water tanks.

There is no reliable raw water source for the establishment of a reticulated water service for Tarago. Surface water relies on the Mulwaree River, which does not continually flow and ponds in drier conditions. Ponds are difficult for water quality as they tend to have issues with de-solved oxygen and other contaminants. Another potential supply would be the use of groundwater as well as the use of existing rainwater tanks. There are complexities associated with a water treatment plant that treats water from two distinctly different water types of raw water due to the different chemical regimes required and would be significantly more expensive. It is also not known whether the groundwater supply can be sustained for a village supply given the data appeared fairly anecdotal in nature.

Dual raw water supply sources for Goulburn has taken a lot of work including modifications to the Goulburn water treatment plant as the Wingecarribee water (supplied via the Highland Source Pipeline) is chemically different to water sourced from local catchments and water treatment plants are designed specifically around raw water quality. This cost of treating water from various sources (i.e. the river and groundwater) would similarly then be passed on to Tarago ratepayers, making the typical residential bill very expensive.

The 2011 *Goulburn Mulwaree Integrated Water Catchment Management Plan* (IWCM) recommended the status quo due to the significant cost with the provision of any water and sewer services.



## Effluent Management

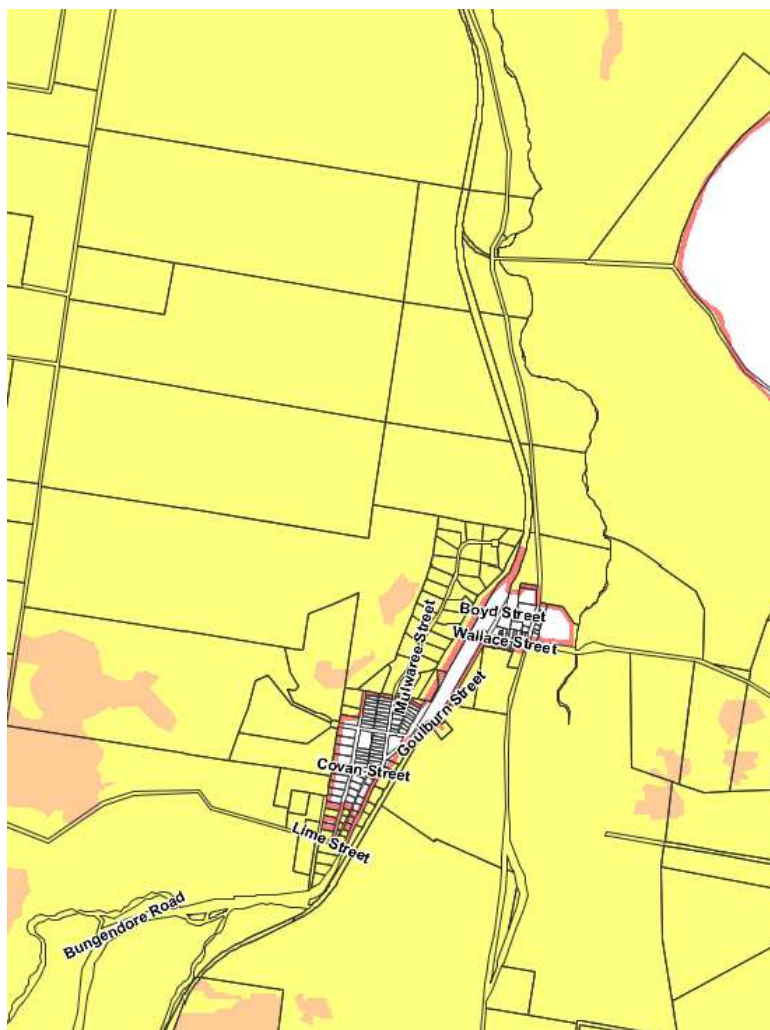
Tarago is located within the Sydney drinking water catchment (SDWC) and in close proximity to the Mulwaree River. Maintaining water quality is clearly an important consideration for future planning.

Currently there is no reticulated sewerage system, with effluent management occurring on site within individual lots. On site effluent management areas (EMAs) within the SDWC are not permitted within 100m of a water course. As can be seen from the opposing map, there are a significant number of identified water courses (including the river) in and around Tarago

Another complicating factor is that the increase in on site effluent management systems may also affect groundwater quality for the village which is partly reliant on water supply from bores.

A section of Tarago between Braidwood Road and the Railway Line has a high water table which is around 0.7m below ground level (GL), this would make onsite effluent management very problematic.

Should reticulated water be proposed, then water usage would increase and reticulated sewer would also be required. Reticulated sewer is limited as discharging treated water into the Mulwaree River is inappropriate due to inconsistent natural flows that may result in discharged waste water ponding and negatively affecting riverine water quality. A sewer system in this area would therefore require irrigation. The costs of a sewer system are high and will require the connection of all residents to obtain the nutrient load for the plant to function noting that separate investment by existing households has already been made into on site systems.



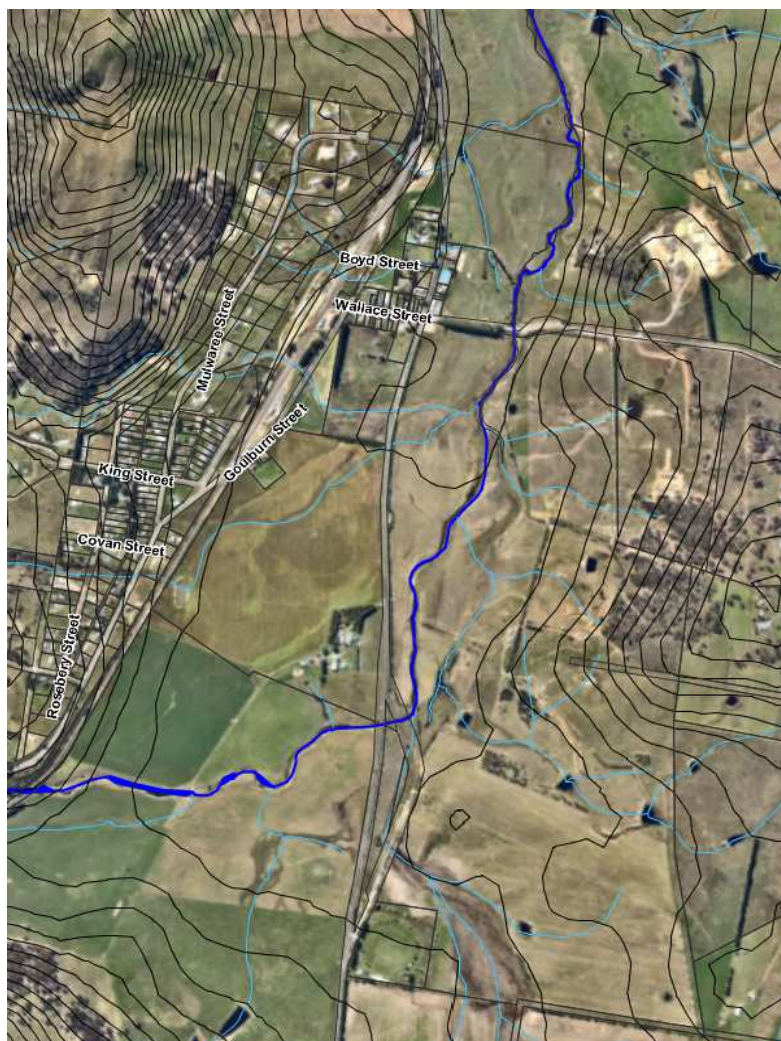
## Bushfire Hazard

The village is surrounded and partly encroached by area identified as bushfire prone land (**as indicated in yellow and red left on the map**).

Considerations include: the overall ability to defend the village, evacuation, connectivity, water supply for fire fighting purposes would all need to be considered as a part of any proposal for village expansion or significant increase in density from levels currently planned.

Issues with communications may also need to be addressed given poor levels of existing internet connectivity.

A Bushfire Strategy prepared in accordance with the *NSW Planning for Bushfire Protection Guidelines 2019* would need to be undertaken.



## Flooding

The location of the Mulwaree River to the east of the village and the extent of the flood plain around the river is suggestive of potential flood risk. The contour map identifies a relatively wide section of floodplain between the Mulwaree River and Braidwood Road/Railway line.

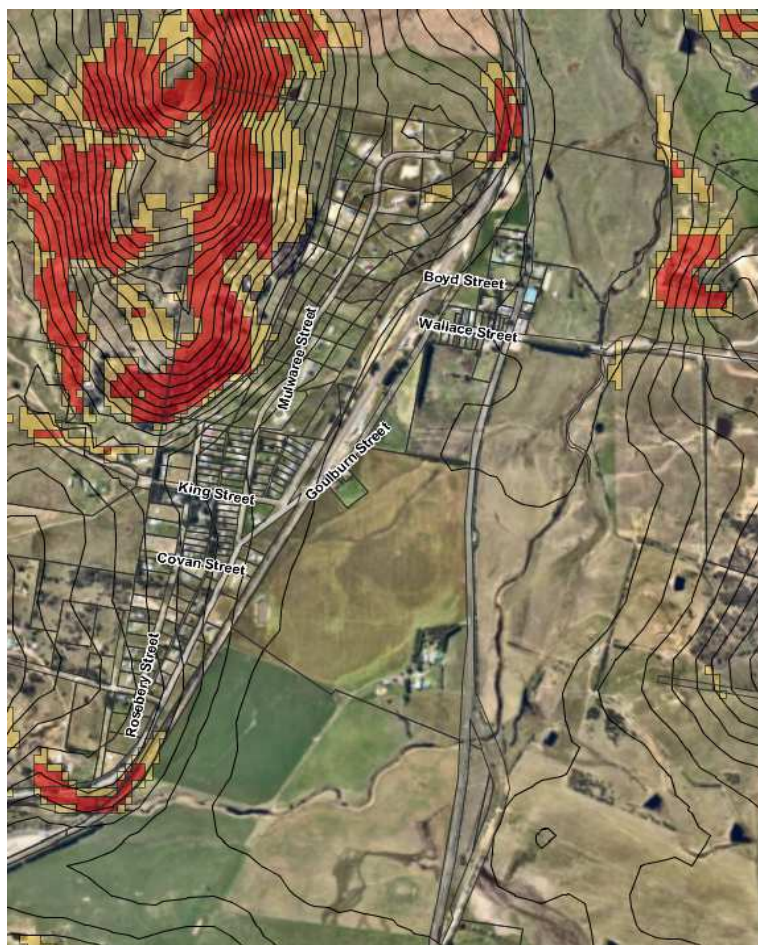
Currently there are no flood studies available for the Mulwaree River in the Tarago locality.

Flood affectation and risk would need to be considered before any further consideration of additional development could occur.

Braidwood Road in Lake Bathurst is subject to inundation. Council's Operations Business Unit has been in discussions with Transport for NSW in relation to mitigation measures for Braidwood Road.

Areas of overland flow from the slopes to the west of the village result in inundation of local streets such Roseberry Street through to Bungendore Road. This is as a result of a lack of a street drainage system in Tarago. It is noted that there are some sections of kerb and gutter but this does not link up into a managed system.

Future developemnt will also need to assess drainage impacts on the railway line and downstream development.



## Slope

The areas to the north west of the village and immediately to the south are considered to be too steep to support additional residential development (especially if on site effluent disposal is proposed).

Slope also poses greater risk in relation to bushfire hazard and presents difficulties for access.

Erosion on steeper sites is also considered to be a constraint.

■ 15 - 20 % Slope

■ > 20 % Slope



#### Legend

- Site boundary
- Rail corridor
- Rail corridor fence
- Area of lead contamination within the rail corridor

#### Sampling locations

- Deposited dust and lead (from dust deposition gauge)
- TSP and lead (from high volume air sampler)
- Continuous PM10 and PM2.5 (from particle counter)
- Regional meteorological monitoring from DPIE Air quality monitoring station (see location inset)

## Site Contamination – Lead

Extracts from the **Tarago Lead Management: Action Plan** prepared by Ramboll (July 2020) for John Holland (copied from Google Source).

*“Lead contaminated ballast within the rail formation and surrounding soils occur within an area of approximately three hectares within the corridor and this area is here-in referred to as “the site”.”*

*“Potential for offsite migration of contamination (lead) from the site has been considered through assessment of lands adjacent the site and (where requested) more broadly within the surrounding area. High lead concentrations arising from the site appear limited to adjacent land and have migrated through surface water and airborne dust. Specific impacts have been identified in soil, surface water, internal dust and sediment within rainwater tanks. Affected property owners have been notified and rectification works are underway.*

*The main routes of ecological exposure appear to be via dust deposition and overland flow.”*

Further consideration of potential contamination in relation to the above would need to occur as a part of any planning assessment of the village for development capacity.

## Potential Investigation Areas – Urban Infill

Urban infill within the existing RU5 Village Zone, is largely limited by the lack of reticulated sewer services. Therefore water quality impacts from development in relation to the Sydney drinking water catchment is the main constraint to the reduction of minimum lot sizes for development. Accordingly Water NSW was consulted in the preparation of this Draft Strategy as it has undertaken Strategic Land and Water Capability Analysis (SLWCA – refer **Attachment 4**) for the drinking water catchment which identifies land in terms of risk to water quality based on sewered and unsewered scenarios and on the size of lots.

In relation to the potential for infill (the reduction of lot sizes within the existing RU5 zone), Water NSW has advised:

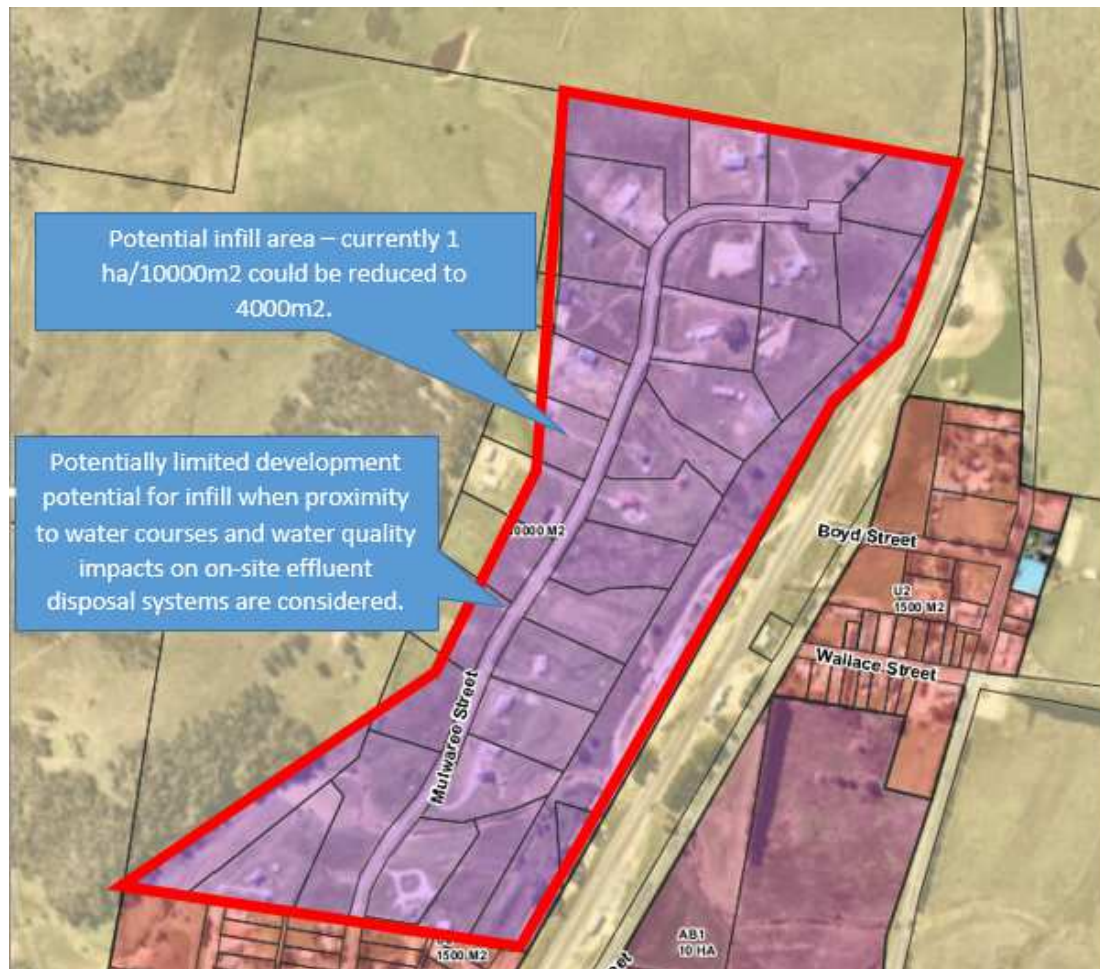
***“Capacity for reduction of lot sizes (if any) in the existing RU5 area, and capacity for any expansion?”***

*The existing RU5 area in the North-West [Precinct 1A] has a 10,000m<sup>2</sup> Minimum Lot Size (MLS). For unsewered lots 4,000m<sup>2</sup> to 2 ha, the relevant SLWCA water quality risk varies from LOW to EXTREME. Most of the site carries a MODERATE risk to water quality except for areas along the existing waterways where the risk to water quality from unsewered development varies from HIGH to EXTREME. This area has some capacity to be reduced to smaller allotments (4,000m<sup>2</sup> (min)), subject to constraints presented by existing watercourses and the need to accommodate Effluent Management Area (EMA) buffers. This area is not well suited for small lots of 2,000 – 4,000m<sup>2</sup> as most of the risk across the site then becomes HIGH. So there is some capacity here to reduce the MLS below the current 10,000m<sup>2</sup> lot size.*

*The existing RU5 areas in the South-West already have a MLS of 1500m<sup>2</sup>. Given the current MLS, the residential unsewered SLWCA is largely irrelevant. Applying the most relevant SLWCA (lot sizes of 2,000 – 4,000m<sup>2</sup>), the risk across these site varies from MODERATE to EXTREME with areas of HIGH and EXTREME risk being located around existing watercourses. Water NSW does not have SLWCAs that go as low as 1,500m<sup>2</sup> for unsewered areas. As the risk is already MODERATE for a MLS of 2,000m<sup>2</sup>, we would generally not be supportive of a further reduction of lot sizes below the current 1,500 m<sup>2</sup> MLS for this area.*

*The RU5 zoning also occurs in the North-East of Tarago. This area has a MLS of 1,500m<sup>2</sup>. The SLWCA for unsewered residential development for lots sizes 2,000 – 4,000 m<sup>2</sup> indicates that the risk varies from MODERATE to EXTREME, with HIGH and EXTREME risks to water quality being associated with waterways. As the risk is already MODERATE for a MLS of 2,000 m<sup>2</sup>, we would generally not support a further reduction of lot sizes below the current 1,500m<sup>2</sup> MLS for this area.*

*Conclusion: Based on the above, the only real opportunity for further development within the existing RU5 zone is in the North-West where there is an opportunity for the MLS to be reduced to 4,000m<sup>2</sup> on lands with MODERATE risk.*



*We also note that there may be opportunity to expand the current village zone slightly further in the north and west beyond the limits of the current RU5 zoning. However, steep slopes start to become a significant site constraint and more detailed site investigations regarding slopes and soils would need to be conducted to consider this possibility further.”*

Based on the above, there is some potential for the existing RU5 Village zoned area (where the 10 000m<sup>2</sup> or 1ha minimum lot size applies) to have a reduction in minimum lot size down to 4000m<sup>2</sup>. However, it should be noted that this area is steeply sloping and contains a number of water courses. Effluent Management Areas (EMAs) must be located at least 100m from a water course in the Sydney drinking water catchment, therefore capacity for infill is somewhat limited in this area.

As per the Water NSW advice above, the reduction of lot sizes within the RU5 Village zone where the current minimum lot size is 1500m<sup>2</sup> would not be supported.

Based on the above, opportunities for urban infill within the RU5 Village zone are very limited (i.e. only some select few lots within the Precinct 1A area with a 1ha minimum lot size) have any capacity for subdivision.

A basic assessment of further growth capacity for the RU5 Village zoned area (refer **Attachment 3**) using existing zoning and minimum lot sizes (excluding any consideration of individual site constraints) has found that:

- There are currently 47 lots that are vacant which meet the lot size requirements for a dwelling.\*
- There are currently only 24 lots with any subdivision potential, of these lots a maximum of 69 lots can be created – which is a net increase of 45 lots. \*

*\* Note: The assessment of development potential has only used minimum lot size requirements and existing lots sizes to determine capability site constraints have not been factored into the above figures and so actual lot yields may be significantly lower.*

A further increase of 45 dwellings at an occupancy rate of 2.4 people per household would see a maximum population increase of 108 people. Census data from 2016 suggests a slightly lesser occupation rate of 2.17 people per household.

Therefore, based on current zoning and minimum lot sizes in the LEP there is some small capacity for growth in the short term.

## Potential Investigation Areas – Urban Expansion

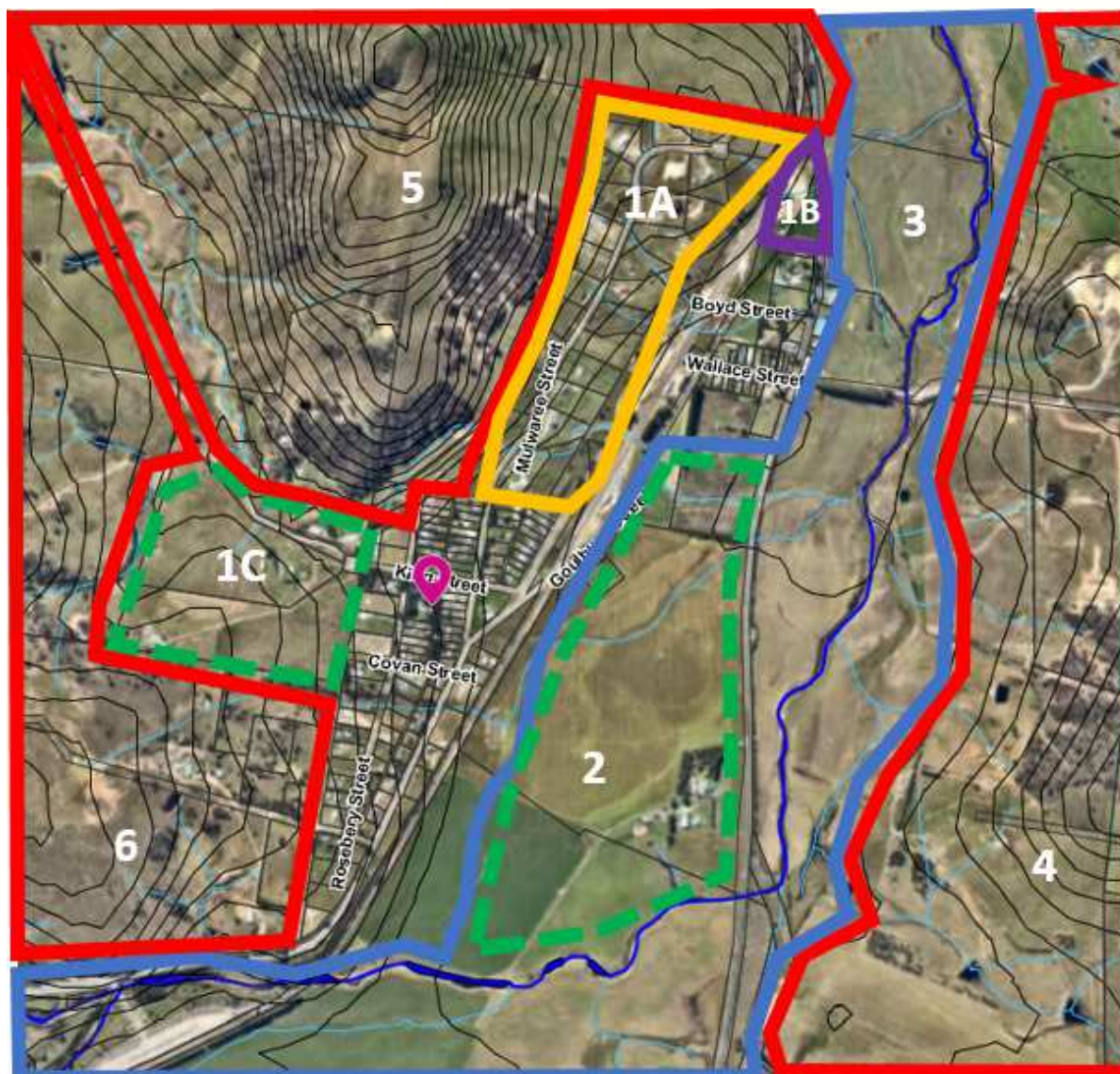
Criteria for the identification of potential village expansion are largely based on land development constraints and the identification of sites which are contiguous to existing urban areas.

It is assumed that due to the costs and environmental constraints relating to the introduction of reticulated water and sewer servicing, that this infrastructure would unlikely in Tarago. Therefore, assumptions are made in relation to lots capacity for development based on water quality impacts from sewer, proximity to water courses, slope etc.

The following criteria has been applied to the Tarago village to ensure that investigation sites:

- Are contiguous to existing RU5 Village zoned land.
- Are excluded from areas where slope is greater than 15%.
- Proximity to water courses (given the 100m effluent management area (EMA) buffer).
- Drainage and elevation in relation to the Mulwaree flood plain/flood potential.
- Lack of obvious biodiversity value.
- Bushfire Hazard and connectivity to existing road network for evacuation.
- Proximity to railway line (noise/potential contamination corridor).
- Proximity to haulage routes.
- Avoidance of State Significant Agricultural Land.
- Excludes Crown Land (**Attachment 5**).

Tarago has been categorised based on the above criteria into precincts.



Precincts 1 C and 2 in green were identified for further investigation for the expansion of the RU5 Village zone. Precinct 1C is considered to be relatively unconstrained due to slope (elevated above the flood plain but not steep), lesser density of water courses, cleared land with non native grass land, two road access from Covan and King Streets (for bushfire evacuation) and is contiguous. Water NSW has advised:

*For the smaller western area, the SLWCA for unsewered lots of 4,000 m<sup>2</sup> - 2 ha shows that the water quality risk varies from LOW to EXTREME with most of the land having a LOW to MODERATE risk except for the edge of the waterway in the north which has an EXTREME Risk. For lots 2,000 – 4,000m<sup>2</sup> the water quality risk varies from LOW to EXTREME with the land generally having a LOW, MODERATE and HIGH risk with a small area of EXTREME risk in the north associated with the waterway.*

***Conclusion: Based on the above, the smaller western investigation area [1C] has some capacity for unsewered development, with the least risk to water quality being presented for a minimum lot size (MLS) of 4,000m<sup>2</sup> – 2 ha. Smaller lot sizes (2,000 – 4,000 m<sup>2</sup>) may be possible in areas of LOW to MODERATE risk, but this would need further site investigation regarding site constraints. We would generally not be supportive of any MLS below 2,000 m<sup>2</sup>.***



**Above- Precinct 1C – View from King Street looking south toward the end of Covan Street**

### ***Precinct 1C – Extent of Investigation Area (ha).***

Precinct 1 B was identified during the public consultation period of the Strategy. This precinct contains the norther portion of Lot A DP 440822 with the southern portion zoned RU5 Village and the northern portion zoned RU1 Primary Production. This site is contiguous with the RU5 village zone and has potential access from Boyd Street. Water NSW have advised in relation to a rezoning of the northern portion:

*“We have assessed the site’s capability for residential development based on the land being unsewered and taking into account preliminary Strategic Land and Water Capability assessments for the site (see below).*



*For unsewered residential development of lots 2000m<sup>2</sup> – 4000m<sup>2</sup>, the risk to water quality varies from MODERATE to EXTREME (see Map 1). The areas of EXTREME risk are associated with the water course that cuts across the middle of the site. Areas of EXTREME risk have a very low land use capability while areas of HIGH risk have a low land use capability. The site is generally unsuitable for unsewered development with lot sizes of 2000m<sup>2</sup> – 4000m<sup>2</sup>.*

*For unsewered development of lots 4000m<sup>2</sup> – 2ha, the risk to water quality similarly varies from MODERATE to EXTREME (see Map 2). The areas of EXTREME risk are associated with the water course that cuts across the middle of the site. As indicated above, areas of EXTREME risk have a very low land use capability while areas of HIGH risk have a low land use capability. However, there is more available land in the MODERATE risk category which has a corresponding moderate land use capability. These areas occur in the south of the site (Map 2) and mainly overlap with the current RU5 Village zoned portion of the lot, although a small area of MODERATE risk also occurs immediately north of the RU5 land. There is some capacity of the site to accommodate unsewered lots of 4000m<sup>2</sup> – 2ha in size in the MODERATE risk areas. Further site-specific investigations would need to be conducted including flood risk, ground water and water quality considerations. Development capability may also be influenced by the need to accommodate Effluent Management Areas (EMAs) and appropriate buffer distances from the water course and farm dams etc.*

Based on the above there is some capacity for reduction of the lot size for the northern portion to lots with a minimum lot size of 4000m<sup>2</sup>. This would be subject to consideration of flooding and more detailed water quality assessment analysis.

Precinct 2 is low lying and whilst contiguous may be affected by flooding furthermore it is also identified as State Significant Agricultural Land by NSW Department of Primary Industries (Agriculture). It would appear to be dominated by introduced plant species and has been cropped for lucerne. It is currently zoned Ru6 Transition which is limiting for agriculture and a zone change to a more flexible rural zone should be considered as a part of any future Agricultural Land Use Strategy.

It is closer to the railway line/corridor and may be more affected by potential contamination. It is also close to the haulage routes of Braidwood Road and Bungendore Road. Water NSW has advised that *“the water table in the flat area (between Braidwood Rd and the railway, i.e. the investigation area over the larger parcel of land in the south-east) is around 0.7m below GL. this would make onsite effluent management very problematic”*.

Water NSW further advised in relation to minimum lot size:



*“The larger parcel of land in the south-east is much more constrained. The southern half of the investigation area is effectively floodplain and therefore potentially flood-prone. For unsewered lots, 4,000m<sup>2</sup> to 2 ha, the water quality risks varies from LOW to EXTREME, with most of the site having a MODERATE or EXTREME water quality risk. The EXTREME water quality risk is associated with the floodplain area in the south and the tributaries of the waterways in the north. For lots 2,000 – 4000m<sup>2</sup>, the water quality risk varies from MODERATE to EXTREME. Again the floodplain areas in the south carry the EXTREME risk with EXTREME risk being associated with waterways in the north. A larger proportion of the site is affected by a HIGH risk rating than compared with the SLWCA for lots 4,000m<sup>2</sup> – 2 ha. Based on our information, the two main watercourses are deeply incised and would require 100m Effluent Management Area (EMA) buffers. Additionally we understand that the area has groundwater bores that are used for potable supply (e.g. the hotel).”*

**Left – Precinct 2 from Goulburn Street**

*Conclusion: The larger eastern area is highly constrained. It may be possible to extend the existing village zone slightly southwards, with a larger lot size of 4,000m<sup>2</sup> (min) but these areas would also need to comply with a 100m EMA buffer distance. The remainder of*

*the land has a very low capability for urban development with high risks for water quality. Overall we believe there is very limited opportunity for unsewered development in this investigation area.*

Precinct 2 is considered to be more constrained than Precinct 1 and less likely to have development potential. However, Precinct 2 is currently zoned RU6 Transition which was traditionally applied to areas around villages where there may have been potential for expansion. Although the use of the RU6 Transition zone does not mean that a site will in fact be suitable subject to further investigation of constraints etc.

Precinct 3 is dominated by the Mulwaree River and its flood plain and is considered to be unlikely to support development based on flooding and drainage constraints.



***Left-Precinct 3 and 4 – View across Precinct 3 – to Precinct 4 and Lumley Road.***

***Below-Precinct 5 – North Mulwaree Street looking to the South over the Village and flood plain***

Precincts indicated in red (4 – 6) are not identified for further development as they are steeper, have a greater density of watercourses, or, in the case of Precinct 4 – are not contiguous with existing zoned RU5 Village areas.



## Conclusion and Next Steps

In conclusion, the main factors in determining the potential for growth in Tarago are the identification of lot sizes which can support a dwelling and on site effluent disposal systems. This is further complicated by the need to maintain water quality in the SDWC and the potential for contamination of local bores.

The Mulwaree River and local groundwater cannot be relied upon to provide a consistent supply of water for a reticulated system. Further complications also arise as the costs of adding supplementary water sources adds to the cost of water treatment. Should reticulated water be proposed, then water usage would increase and reticulated sewer would also be required.

Reticulated sewer is limited as the need to discharge treated water remains. Again, the Mulwaree River is a limiting factor as the lack of consistent natural flows would mean that discharged waste water could pond and negatively affect the water quality of the river.

Costs associated with reticulated water and sewer systems would be relatively high and would require connection of all residents. Given that existing residents have already paid for on site services, and given the limited potential for significant increases in density in the village, such systems may not be feasible (for either Council or the residents).

Constraints are also likely due to sections of surrounding area affected by relatively steep slopes, or conversely, flat areas in vicinity of the Mulwaree River, likely to be affected by flooding. Further assessment of bushfire constraints and preparation of a bushfire strategy would be required.

Responsibility and assessment of extent of potential lead contamination beyond the rail corridor should also be considered.

Three potential areas have been identified based on known constraints identified in this draft Strategy (Precincts 1A, 1B, and 1C), however further individual site specific studies would be required to determine suitability for any extension to the RU5 Village zone, and prior to any reduction of minimum lot size.

Technical studies required for any future planning proposals would include:

- Flood Risk and Management Study
- Bushfire Strategy
- Water Quality Assessment
- Contamination Assessment

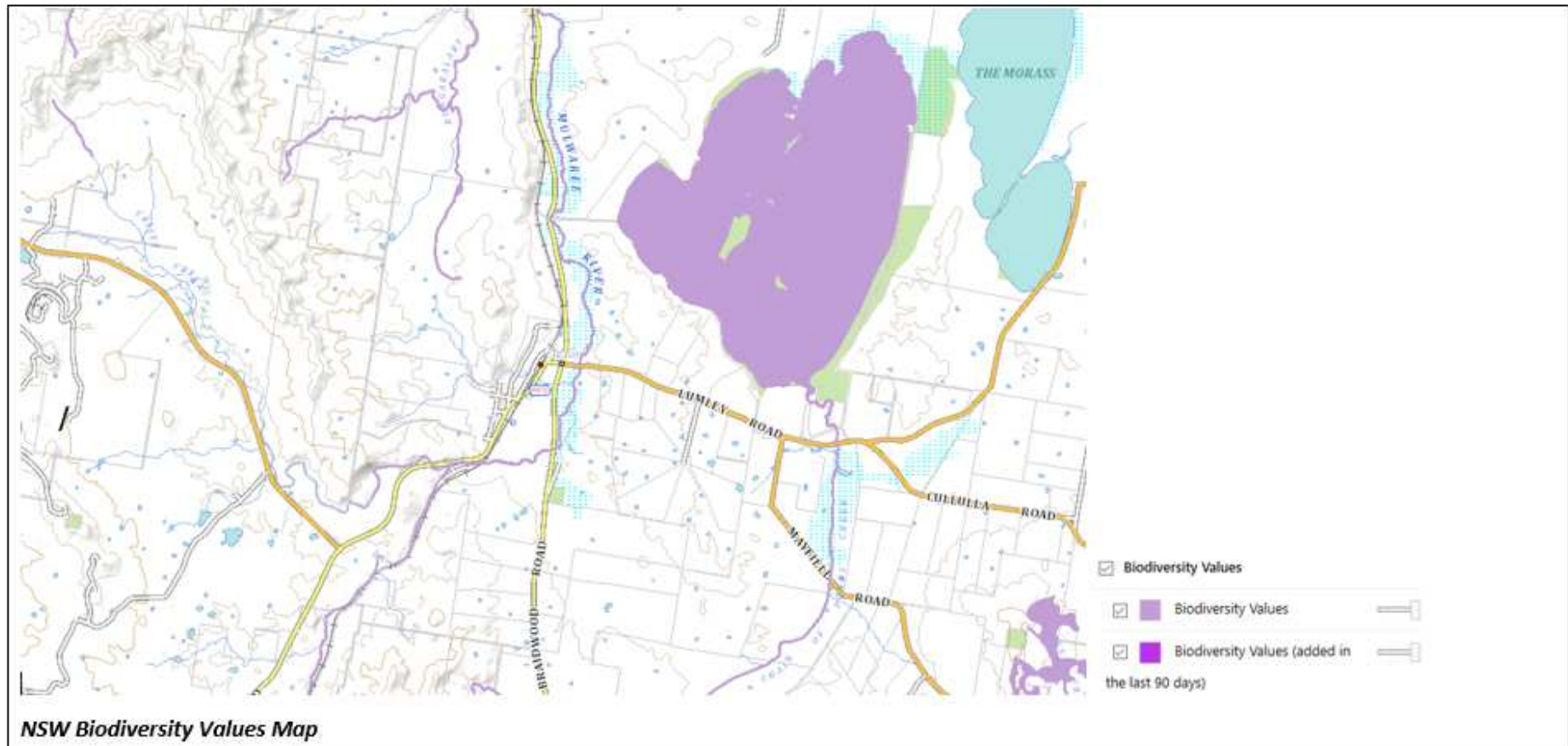
- Cost/Feasibility Analysis for Reticulated Water and Sewer (this would be required if any increase in existing minimum lot sizes are proposed within the current RU5 Village zone, such as within the North Mulwaree St precinct).
- Biodiversity Assessment
- Aboriginal Cultural Heritage Assessment.
- Agricultural Viability Study.
- Road and Rail Infrastructure including:
  - An assessment of adequacy for the level crossing on Goulburn Street;
  - Traffic and network assessment of intersection with Braidwood Road to determine adequacy (in relation to the scale of the development);
  - Adequacy of the level crossing on Goulburn Street;
  - Drainage impacts on the railway line
  - Flood impacts in relation to access roads etc.

#### **Site Specific Development Control Plan for Tarago:**

Should any rezoning occur a site specific amendment to the Goulburn Mulwaree Development Control Plan (DCP) may be required and would need to include the following detail:

- Road connectivity within new subdivisions to form a link between King and Covan Streets (Precinct 1).
- Restriction on development directly accessing Braidwood Road such as child care centres, education facilities and schools. Generally new residential development should also use secondary road access where available and avoid primary access to Braidwood Road.
- Management of noise and vibration for development near road/rail corridors.
- Facilitation of walking /cycling.
- New development should not impact the existing railway station.
- Identification of pathways and passive recreational routes through the village.

## Attachment 1 - Biodiversity Values Map and SEED – Vegetation Types





*Extract NSW SEED Portal – Vegetation Types – SE NSW Native Vegetation*

**P10 Eastern Tablelands Dry Forest; P14 -Western Tablelands Dry Forest; P51 - Tableland Lacustrine Herbfield**

## **Attachment 2 -Results of EPBC Protected Matters Search and BioNet Atlas Searches.**

Threatened entities predicted or known to be present within 5 km of Tarago Village.

V = Vulnerable

E = Endangered

CE = Critically Endangered

M = Migratory species listed under EPBC Act as MNES

The minimum searchable area on the BioNet Atlas is a 10 x 10 km square. Centring this on Tarago means the search area includes a large part of the nearby wetlands at Lake Bathurst, which has numerous recorded species listed as threatened species under the NSW BC Act and/or MNES under the Commonwealth EPBC Act. However BioNet mapping shows that there are no recent records for any of these in the immediate vicinity of Tarago Village. The majority of threatened species known or predicted to be present in the general area by database searching are either wetlands species or woodland/forest species that are not likely to be significantly impacted by development of previously cleared land.

Common Name	Scientific Name	Commonwealth	NSW
Natural Temperate Grassland of the South Eastern Highlands		CE	
White Box – Yellow Box – Blakely’s Red Gum Grassy Woodland and Derived Native Grassland		CE	CE
Austral Toadflax	<i>Thesium australe</i>	V	V
Australasian Bittern	<i>Botaurus poicilopterus</i>	E	E
Australian Painted Snipe	<i>Rostratula australis</i>	E	E
Basalt Peppercreess	<i>Lepidium hyssopifolium</i>	E	E
Black Faced Monarch	<i>Monarcho melanopsis</i>	M	
Black Falcon	<i>Falco subniger</i>		V
Black Gum	<i>Eucalyptus aggregate</i>	V	V
Blue Billed Duck	<i>Oxyura australis</i>		V
Buttercup Doubletail Orchid	<i>Diurus aequalis</i>	E	E
Button Wrinkelwort	<i>Rutidosis leptorhynchoides</i>	E	E
Curlew Sandpiper	<i>Calidris ferruginea</i>	CE	E
Delicate Pomaderris	<i>Pomaderris delicata</i>	CE	CE
Dwarf Kerrawang	<i>Commersonia prostrata</i>	E	E
Eastern Curlew	<i>Numenius madagascariensis</i>	CE	
Freckled Duck	<i>Stictonetta naevosa</i>		V
Glossy Black Cockatoo	<i>Calyptorhynchus lathamii</i>		V
Golden Sun Moth	<i>Synemon plana</i>	CE	E
Greater Glider	<i>Petauroides volans</i>	E	
Green and Golden Bell Frog	<i>Litoria aurea</i>	V	E
Grey Falcon	<i>Falco hypoleucos</i>	V	E

Grey Head Flying Fox	<i>Pteropus volans</i>	V	V
Hoary Sunray	<i>Leucochrysum albicans tricolor</i>	E	
Koala	<i>Phascolarctos cinereus</i>	V	V
Large Eared Pied Bat	<i>Chalinolobus dwyeri</i>	V	V
Large Fruited Groundsel	<i>Senecio macrocarpus</i>	V	
Little Eagle	<i>Hieraatus morphnoides</i>		V
Macquarie Perch	<i>Macquaria australasica</i>	E	
Magpie Goose	<i>Anseranas semipalmata</i>		V
Mauve Burr Daisy	<i>Calotis glandulosa</i>	V	V
Omeo Stork's Bill	<i>Pelargonium sp. Striatellum</i>	E	E
Painted Honeyeater	<i>Grantiella picta</i>	V	V
Pink Tailed Worm Lizard	<i>Aprasia parapulchella</i>	V	V
Regent Honeyeater	<i>Anthochaera phrygia</i>	CE	E
Round Leaved Wilsonia	<i>Wilsonia rotundifolia</i>		E
Rufous Fantail	<i>Rhipidura rufifrons</i>	M	
Satin Flycatcher	<i>Myiagra cyanoleuca</i>	M	
Scarlet Robin	<i>Petroica boodang</i>		V
Silky Swainson Pea	<i>Swainsona sericea</i>		V
Spotted Tail Quoll	<i>Dasyurus maculatus</i>	E	V
Striped Legless Lizard	<i>Delma impar</i>	V	V
Superb Parrot	<i>Polytelis swainsonii</i>	V	V
Tarengo Leek Orchid	<i>Prasophyllum petilum</i>	E	E
Thick Lipped Spider Orchid	<i>Caladenia tessellata</i>	V	E
Trailing Hop Bush	<i>Dodonaea procumbens</i>	V	V

White Bellied Sea Eagle	<i>Haliaeetus leucogaster</i>		V
White Fronted Chat	<i>Epthianura albifrons</i>		V
White Throated Needletail	<i>Hirundapus caudacutus</i>	V	
Yellow Spotted Tree Frog	<i>Litoria castanea</i>	CE	E
Yellow Wagtail	<i>Motacilla flava</i>	M	

### Attachment 3

#### Existing RU5 Village Zoned Land – Remaining Potential (Desk top only without consideration of constraints).

Property No.	Lot and Deposited Plan	Address	Dwelling on GIS/SSA map?	Dwelling Approval?	minimum lot size(s) FOR lot	minimum lot size(s) OF lot Tech1	Subdivision Potential?
1017256	6//612707	2 Boyd Street	Yes		1500m2	3035	Yes into 2
1017257	1//1073462	Boyd Street	No	No	1500m2	1545	No
1021524	1//871782	1-3 Braidwood Road	Retail		1500m2	1875	No
1017266	1//1064485	2 Braidwood Street	Service Centre		1500m2	1352	No
1015855	3//871782	2124 Braidwood Road	No	No	1500m2	1859	No
1017264	831//1176447	2135 Braidwood Road	Yes		1500m2	2441	No
1017264	A//440822	2135 Braidwood Road	Yes		100HA and 10000m2	3.195ha	No - Split min lot
1020883	3//1155857	2329 Braidwood Road	No		100HA and 10000m2	144.9ha	No - Split min lot
1017267	1//217733	4-6 Braidwood Street	No		1500m2	2359	No
1014846	1//347182	5 Braidwood Street	Church		1500m2	670.3	No
1017231	1//371482	7 Braidwood Road	Pre School		1500m2	1113	No
1017268	90//750033	8-22 Braidwood Road	School		1500m2	809m	No
1017268	1//795089	8-22 Braidwood Road	School		1500m2	809m	No
1023685	2/7/448719	Bungendore Road	No	Yes	1500m2	6576m	Yes into 4 lots
1023692	3/7/448719	Bungendore Road	No	No	1500m2	5615m	Yes into 3 lots

1017335	130//793043	10 Goulburn Street	Yes		1500m2	1608m	No
1023516	8//1234223	11 Goulburn Street	No		100HA and 10000m2	8393m	No - Split min lot
1017336	131//793043	12 Goulburn Street	Yes	Yes	1500m2	1610m	No
1017337	132//793043	14 Goulburn Street	Yes	Yes	1500m2	1612m	No
1017338	1//843893	16-18 Goulburn Street	Yes		1500m2	3231m	Yes into 2 lots
1023658	7//1234223	17 Goulburn Street	No	Yes	1500m2	3394m2	Yes into 2 lots
1017331	126//793043	2 Goulburn St	No	No	1500m2	1599m	No
1017339	135//793043	20 Goulburn Street	No	No	1500m2	1618m	No
1023657	6//1234223	21 Goulburn Street	Yes	Yes	1500m2	2938m	No
1017340	1/6/448719	22 Goulburn Street	Yes		1500m2	1366m	No
1023403	5//1234223	25 Goulburn Street	Yes	Yes	1500m2	5571m	Yes into 3 lots
1017293	9/5/448719	26 Goulburn St	Yes	Yes	1500m2	1391m	No
1017293	8/5/448719	26 Goulburn St	No	No	1500m2	1391m	No
1023401	4//1234223	31 Goulburn Street	Yes	Yes	1500m2	5063m	Yes into 3 lots
1017280	100//1124085	32 Goulburn Street	Yes		1500m2	6179m2	Yes into 4 lots
1023418	3//1234223	37 Goulburn Street	Yes	Yes	1500m2	2733m	No
1017332	127//793043	4 Goulburn Street	Yes	Yes	1500m2	1614m	No
1023417	2//1234223	41-43 Goulburn Street	Yes	Yes	1500m2	2869m	No

1023416	1//1234223	47 Goulburn Street	No	No	1500m2	6581m	Yes into 4 lots
1017333	128//793043	6 Goulburn Street	Yes		1500m2	1603m	No
1017334	129//793043	8 Goulburn Street	Yes	Yes	1500m2	1606m	No
1024171	10/5/448719	Goulburn St	No	No	1500m2	1265m	No
1017279	20//1120182	3 King Street	Yes		1500m2	?	
1017279	19//1120182	3 King Street	Yes		1500m2	?	
1017302	20//800406	7 King St	Yes	Yes	1500m2	1416	No
1017302	19//800406	7 King St	Yes	Yes	1500m2	1416	No
1014848	1//90435	8 King St	Yes		1500m2	5666m	Yes into 3 lots
1017329	21//800406	9 King St	Yes	Yes	1500m2	173.0m	No
1017329	22//800406	9 King St	Yes	Yes	1500m2	173.0m	No
1022593	1/7/448719	11 Lime Street	Yes		1500m2	6045	Yes into 4 lots
1023252	4/7/448719	19 Lime Street	Yes	Yes	1500m2	?	
1022731	7//1212719	101 Mulwaree Street	Yes	Yes	100HA and 10000m2	10000m	No - Split min lot
1022746	22//1212719	102 Mulwaree Street	Yes	Yes	10,000m2	10200m	No
1022732	8//1212719	109 Mulwaree Street	Yes	Yes	100HA and 10000m2	10000m	No - Split min lot
1017277	A//157114	11 Mulwaree Street	Yes		1500m2	1739m	No
1022745	21//1212719	114 Mulwaree Street	Yes	Yes	10,000m2	11800m	No
1022744	20//1212719	116 Mulwaree Street	Yes	Yes	10,000m2	10000m	No
1022733	9//1212719	121 Mulwaree Street	?	No	100HA and 10000m2	10100m	No - Split min lot
1022742	18//1212719	122 Mulwaree Street	No	Yes	10,000m2	10100m	No
1022734	10//1212719	123 Mulwaree Street	Yes	Yes	100HA and 10000m2	10100m	No - Split min lot

1022735	11//1212719	129 Mulwaree Street	Yes	Yes	100HA and 10000m2	10100m	No - Split min lot
1017276	1415//1148755	13 Mulwaree Street	Yes		1500m2	2580m	No
1022736	12//1212719	131 Mulwaree Street	No	No	100HA and 10000m2	13100m	No - Split min lot
1022737	13//1212719	141 Mulwaree Street	Yes	Yes	10,000m2	10100m	No
1017290	9//800406	14-16 Mulwaree	No	No	1500m2	1416m	No
1017290	10//800406	14-16 Mulwaree	No	No	1500m2	1412m	No
1022743	19//1212719	142 Mulwaree Street	Yes	Yes	10,000m2	10000m	No
1022741	17//1212719	144 Mulwaree Street	Yes	Yes	10,000m2	10100m	No
1022738	14//1212719	145 Mulwaree Street	Yes	Yes	10,000m2	10000m	No
1022739	15//1212719	149 Mulwaree Street	No	No	10,000m2	10000m	No
1022740	16//1212719	150 Mulwaree Street	No	No	10,000m2	10000m	No
1017289	8//800406	18 Mulwaree St	Yes	Yes	1500m2	1416m	No
1017275	12/1/448719	19 Mulwaree Street	No	Yes	1500m2	1492m	No
1017275	13/1/448719	19 Mulwaree Street	Yes	Yes	1500m2	1492m	No
1017275	11/1/448719	19 Mulwaree Street	No	Yes	1500m2	1492m	No
1017292	6/5/448719	2 Mulwaree St	Yes	Yes	1500m2	1416m	No
1017292	7/5/448719	2 Mulwaree St	Yes	Yes	1500m2	1417m	No
1017288	7//800406	20 Mulwaree St	Yes		1500m2	1416m	No
1017287	6//800406	22 Mulwaree Street	Yes		1500m2	1416m	No
1017286	5//800406	24 Mulwaree Street	Yes	Yes	1500m2	1416m	No

1017285	4//800406	26 Mulwaree Street	Yes		1500m2	1416m	No
1017284	3//800406	28 Mulwaree Street	Yes		1500m2	1416m	No
1017283	1//800406	30 Mulwaree Street	Yes	Yes	1500m2	1416m	No
1017283	2//800406	30 Mulwaree Street	Yes	Yes	1500m2	1416m	No
1022754	30//1212719	36 Mulwaree Street	Yes	Yes	10,000m2	10700	No
1022726	2//1212719	41 Mulwaree Street	No	No	10,000m2	17300	No
1017291	4/5/448719	4-12 Mulwaree St	No	No	1500m2	1416m	No
1017291	5/5/448719	4-12 Mulwaree St	No	No	1500m2	141rm	No
1017291	3/5/448719	4-12 Mulwaree St	No	No	1500m2	1416m	No
1017291	1/5/448719	4-12 Mulwaree St	Yes		1500m2	1416m	No
1017291	2/5/448719	4-12 Mulwaree St	Yes		1500m2	1416m	No
1022753	29//1212719	44 Mulwaree Street	Yes	Yes	10,000m2	10000	No
1022752	28//1212719	54 Mulwaree Street	Yes	Yes	10,000m2	10100	No
1022727	3//1212719	69 Mulwaree Street	No	No	100HA and 10000m2	1.05ha	No - Split min lot
1022751	27//1212719	70 Mulwaree Street	Yes	Yes	10,000m2	10000	No
1022750	26//1212719	72 Mulwaree Street	Yes	Yes	10,000m2	10100	No
1022728	4//1212719	79 Mulwaree Street	No	No	100HA and 10000m2	1.01ha	No - Split min lot

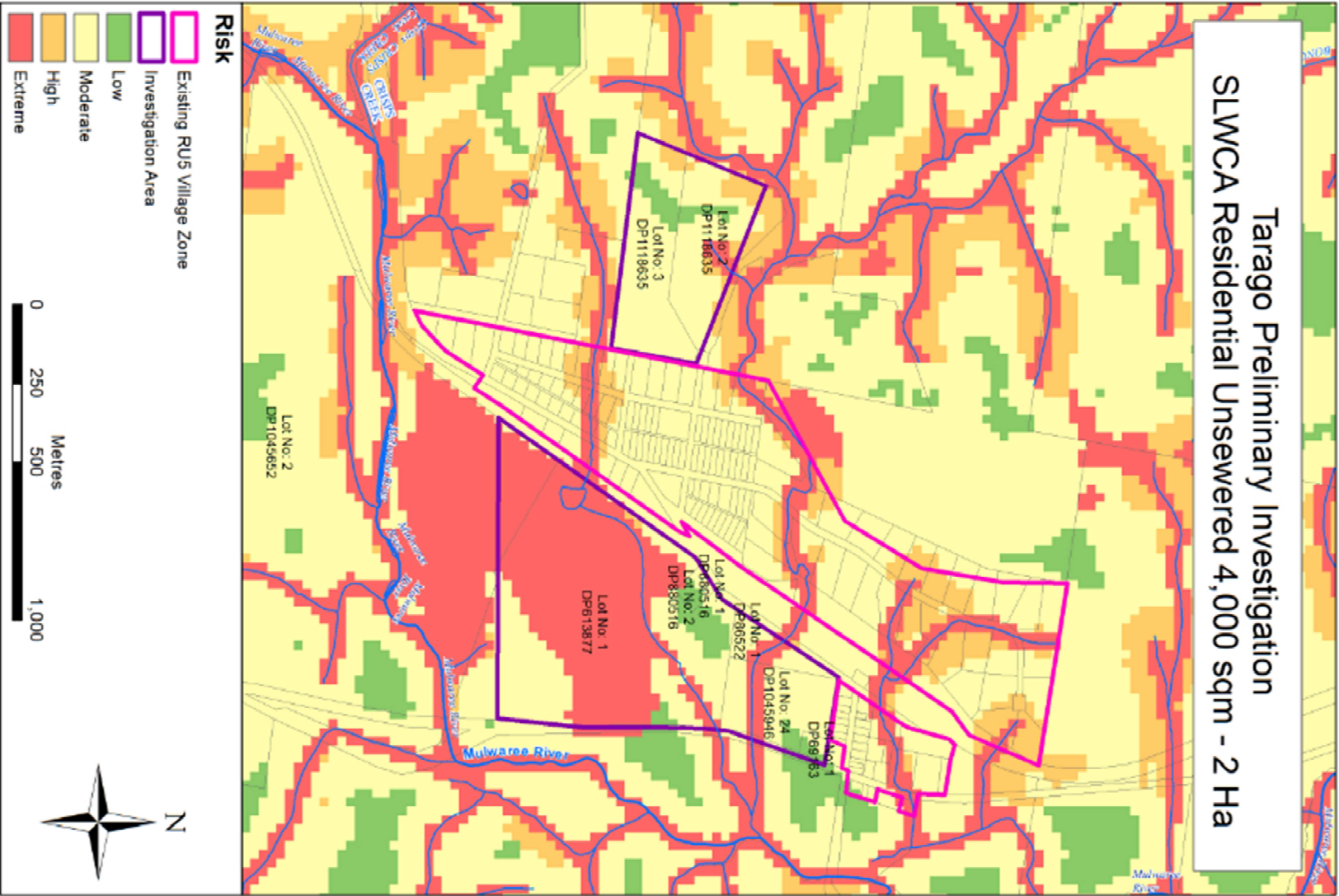
1022749	25//1212719	82 Mulwaree Street	No	Yes	10,000m2	10000	No
1022729	5//1212719	83 Mulwaree Street	No	Yes	100HA and 10000m2	10000	No - Split min lot
1022748	24//1212719	84 Mulwaree Street	No	No	10,000m2	10100	No
1017278	B//157114	9 Mulwaree Street	Yes		1500m2	1562m	No
1022730	6//1212719	95 Mulwaree Street	Yes	Yes	100HA and 10000m2	10000	No - Split min lot
1022747	23//1212719	96 Mulwaree Street	Yes	Yes	10,000m2	10100	No
1017317	125//793043	1 Rosebery Street	No	No	1500m2	975.5m	No
1017322	105//793043	10 Rosebery Street	Yes	Yes	1500m2	3231m	Yes into 2 lots
1017312	120//793043	11 Rosebery Street	Yes	Yes	1500m2	2046m	No
1017323	106//793043	12 Rosebery Street	Yes	Yes	1500m2	3402m	Yes into 2 lots
1017311	119//793043	13-15 Rosebery Street	No	No	1500m2	2323m	No
1017311	118//793043	13-15 Rosebery Street	No	No	1500m2	2600m	No
1020019	4/8/448719	14 Rosebery Street	Yes	Yes	1500m2	3541m	Yes into 2 lots
1017310	117//793043	17 Rosebery Street	Yes	Yes	1500m2	2876m	No
1017309	116//793043	19 Rosebery Street	Yes	Yes	1500m2	2450	No
1017318	101//793043	2 Rosebery Street	Yes	Yes	1500m2	2995m	No
1020018	1/8/448719	20 Rosebery Street	Yes		1500m2	3815m	Yes into 2 lots

1020018	2/8/448719	20 Rosebery Street	Yes		1500m2	3815m	Yes into 2 lots
1020018	3/8/448719	20 Rosebery Street	No	No	1500m2	3815m	Dam
1017308	115//793043	21 Rosebery Street	Yes		1500m2	1425m	No
1017325	107//793043	22-24 Rosebery Street	No	No	1500m2	5195m	Yes into 3 lots
1017307	114//793043	23 Rosebery Street	Yes	Yes	1500m2	1424	No
1017306	113//793043	25 Rosebery Street	Yes	Yes	1500m2	1424m	No
1017326	108//793043	26-28 Rosebery Street	Yes	Yes	1500m2	5190m	Yes into 3 lots
1017305	112//793043	27 Rosebery Street	Yes	Yes	1500m2	1423m	No
1017304	111//793043	29 Rosebery Street	Yes		1500m2	1424m	No
1017316	124//793043	3 Rosebery Street	Yes	Yes	1500m2	938.2m	No
1017327	109//793043	30-32 Rosebery Street	No	Yes	1500m2	5185m	Yes into 3 lots
1017328	110//793043	34 Rosebery Street	Yes		1500m2	5179m	Yes into 3 lots
1017319	102//793043	4 Rosebery Street	Yes	Yes	1500m2	2791m	No
1017301	18//800406	45 Rosebery Street	Yes	Yes	1500m2	1416m	No
1017330	1//813262	46-54 Rosebery Street	No	No	1500m2	10300m	No
1017300	17//800406	47 Rosebery Street	Yes		1500m2	1416m	No
1017299	16//800406	49 Rosebery Street	Yes		1500m2	1416m	No

1017315	123//793043	5 Rosebery Street	No	No	1500m2	1215m	No
1017298	15//800406	51 Rosebery Street	Yes	Yes	1500m2	1416m	No
1017297	14//800406	53 Rosebery Street	Yes	Yes	1500m2	1416m	No
1017296	13//800406	55 Rosebery Street	Yes	Yes	1500m2	1416m	No
1017295	12//800406	57 Rosebery St	Yes		1500m2	1416m	No
1017294	11//800406	59 Rosebery St	Yes	Yes	1500m2	1416m	No
1017320	103//793043	6 Rosebery Street	Yes		1500m2	2889m	No
1022725	1//1212719	61 Rosebery Street	Yes	Yes	10,000m2	11800	No
1017314	122//793043	7 Rosebery Street	No	No	1500m2	1492m	No
1017321	104//793043	8 Rosebery Street	No	No	1500m2	3061	Yes into 2 lots
1017313	121//793043	9 Rosebery Street	No	No	1500m2	1769m	No
1017270	1//194348	12 Stewart Street	Yes		1500m2	1230m	No
1020453	4/1/448719	14 Stewart Street	Yes		1500m2	1290m	No
1021523	3/1/448719	16 Stewart Street	Yes		1500m2	1366m	No
1021522	2/1/448719	18 Stewart Street	Yes		1500m2	1442m	No
1017274	10/1/448719	2 Stewart Street	Yes		1500m2	1024.5m	No
1017274	9/1/448719	2 Stewart Street	Yes		1500m2	1024.5m	No
1021521	1/1/448719	20 Stewart Street	Yes	Yes	1500m2	1467m	No
1017273	8//736734	6 Stewart Street	Yes	Yes	1500m2	1009m	No
1017272	7//736734	8 Stewart Street	Yes	carport	1500m2	1062m	No

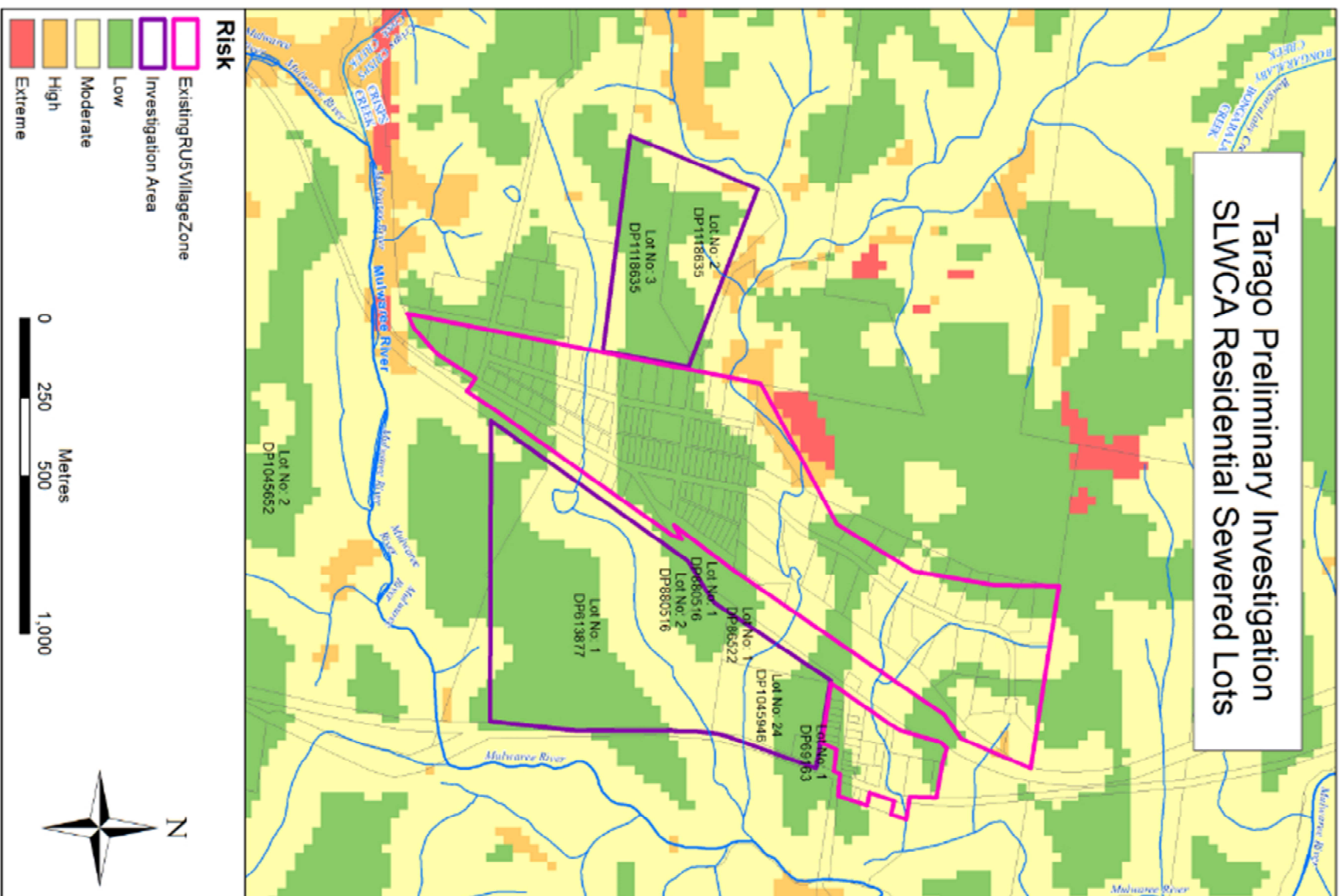
1017224	2//714595	Stewart Street	No	No	1500m2	2420m	No
1017246	1//69163	The Loaded Dog Hotel 1 Wallace Street	Motel		1500m2	8094m	Yes
1017255	5//612707	12 Wallace Street	Yes		1500m2	1011m	No
1017255	4//612707	12 Wallace Street	Yes		1500m2	1011m	No
1017247	2//38590	13-17 Wallace Street	Yes		1500m2	822m	No
1017247	1//38590	13-17 Wallace Street	Yes		1500m2	822m	No
1017247	3//38590	13-17 Wallace Street	Yes		1500m2	822m	No
1017258	1//784245	14 Wallace Street	Yes		1500m2	1016m	No
1017261	1//196429	16 Wallace Street	Yes		1500m2	2164m	No
1017261	Y//409861	16 Wallace Street	No	No	1500m2	2164m	No
1017262	A//342871	18 Wallace Street	No	No	1500m2	556.4m	No
1017262	1//342870	18 Wallace Street	Yes		1500m2	556.4m	No
1017263	X//409861	20-22 Wallace Street	Men's Shed		1500m2	2200m	No
1017251	7//38590	5 Wallace Street	Yes		1500m2	721m	No
1017251	8//38590	5 Wallace Street	Yes		1500m2	721m	No
1017250	6//38590	7 Wallace Street	Yes		1500m2	1037m	No
1017254	X//158242	8 Wallace Street	Yes		1500m2	1081m	No
1022207	5//38590	9-11 Wallace Street	Yes	Yes	1500m2	822m	No
1022207	4//38590	9-11 Wallace Street	No	No	1500m2	822m	No

1021626	2//1110154	Wallace Street	Yes		1500m2	550m	No
1021626	1//1110154	Wallace Street	No	No	1500m2	550m	No
1021626	Y//158242	Wallace Street	Yes		1500m2	550m	No
0	6/1/448719		Yes		1500m2	?	
0	PT1//595856		No	No	10,000m2	55360	Yes into 5 lots
	2//342870		No	No	1500m2	1012m	No





Tarago Preliminary Investigation  
SLWCA Residential Sewered Lots



## Attachment 5 – Crown Land

