

Small Towns: Bungaree, Dunnstown and Wallace

Land Use Planning and Community Facility Analysis



Small Towns: Bungaree, Dunnstown and Wallace

Client: Shire of Moorabool

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Table of Contents

1.0	Introduction	1
2.0	Subject Towns	2
2.1	Bungaree	1
2.2	Wallace	2
2.3	Dunnstown	3
3.0	Planning Framework	5
3.1	Proclaimed Water Catchment	5
3.2	Moorabool Planning Scheme	7
3.2.1	State Planning Policy Framework	7
3.2.2	Local Planning Policy Framework	8
3.2.3	Planning Controls	8
3.3	Historical Council Plans and Strategies	10
3.4	Draft Central Highlands Regional Growth Plan, June 2013	10
3.5	Planning Practice Note 37 – Rural Residential Development	11
4.0	Demographics	13
5.0	Community Infrastructure	16
5.1	Community Facilities	16
5.2	Community Infrastructure Ratios	17
5.3	Community Infrastructure Analysis	19
5.4	Community Facilities and Population Thresholds	25
6.0	Land Use Opportunities and Constraints	27
6.1	Bungaree	27
6.2	Wallace	30
6.3	Urban Development and Yield	33
7.0	Summary	35

1.0 Introduction

AECOM has been engaged by the Shire of Moorabool to prepare a planning and engineering study to assess the opportunities, challenges and viability of providing reticulated utility services to the three small townships of Bungaree, Wallace and Dunnstown in central Victoria in order that land can be developed sustainably .

The overall study has been divided into several phases. This report has been prepared for the first phase. It provides a desktop review and analysis of:

- Community facilities and their capacity to support population growth
- Current demographics and future population projections
- State, regional and local planning policy and controls
- Land use constraints that influence opportunities for urban growth
- Land use opportunities where urban growth could be located.

The information and conclusions presented below are based on a desktop review of published information only and should be viewed as indicative only. Specifically targeted site investigations are required before definitive conclusions can be determined regarding optimal land development options and infrastructure locations.

The purpose of this Study was to identify the potential population capacity of Bungaree and Wallace based on existing community facilities, and to then develop an urban development scenario to inform the theoretical design and feasibility assessment for providing reticulated sewerage infrastructure in Bungaree and Wallace. Council has stated that there are no plans to grow Dunnstown at this time, and as such this Study has not analysed the population capacity and potential urban growth opportunity for Dunnstown.

The urban development scenarios contained in this report are only to inform the feasibility of providing reticulated sewerage in Bungaree and Wallace. They are not intended for use as a Structure Plans. We note that before urban growth occurs that further and more detailed targeted planning and community consultation, including (for example) a market analysis, environmental studies and land capability assessment and the like should be undertaken by Council.

2.0 Subject Towns

Bungaree, Wallace and Dunnstown are small towns located in the Shire of Moorabool. The Shire of Moorabool is located between two major urban centres - Greater Melbourne which is approximately 85km to the east (a metropolis with a population of in excess of 4 million people) and Greater Ballarat which is approximately 15 km to the west (a key regional city in western Victoria of approximately 100,000 people). Other major towns in the Shire of Moorabool are Bacchus Marsh which is approximately 45km to the east (a smaller rural centre of some 15,000 people) and Ballan which is approximately 20km to the east (the administrative centre of Moorabool with a population of 2,744).

Bungaree, Wallace and to a lesser extent Dunnstown are connected to these major cities and provincial towns via the Western Freeway. Common to peri-urban areas, the proximity to Melbourne and Ballarat and excellent transport access has seen increasing demand for housing within the Shire. Within the Shire of Moorabool this type of peri-urban development has historically occurred in Bacchus Marsh. By comparison, areas like Bungaree, Wallace and Dunnstown have not experienced similar growth, in large part due to their location within the Proclaimed Water Catchment Areas.

Figure 1 shows the location of Bungaree, Wallace and Dunnstown within the Shire of Moorabool. It also shows the location of Ballan and Bacchus Marsh, the proximity of the study area to Melbourne and Ballarat, and the excellent transport links between them.

The towns of Bungaree, Wallace and Dunnstown are located in a significant agricultural region, which is particularly suitable for horticulture. Potatoes are a major agricultural output of the area. The populated areas of Wallace and Bungaree are approximately 4-5kms apart; Dunnstown and Bungaree are approximately 6kms apart; and Wallace and Dunnstown are about 10kms apart.

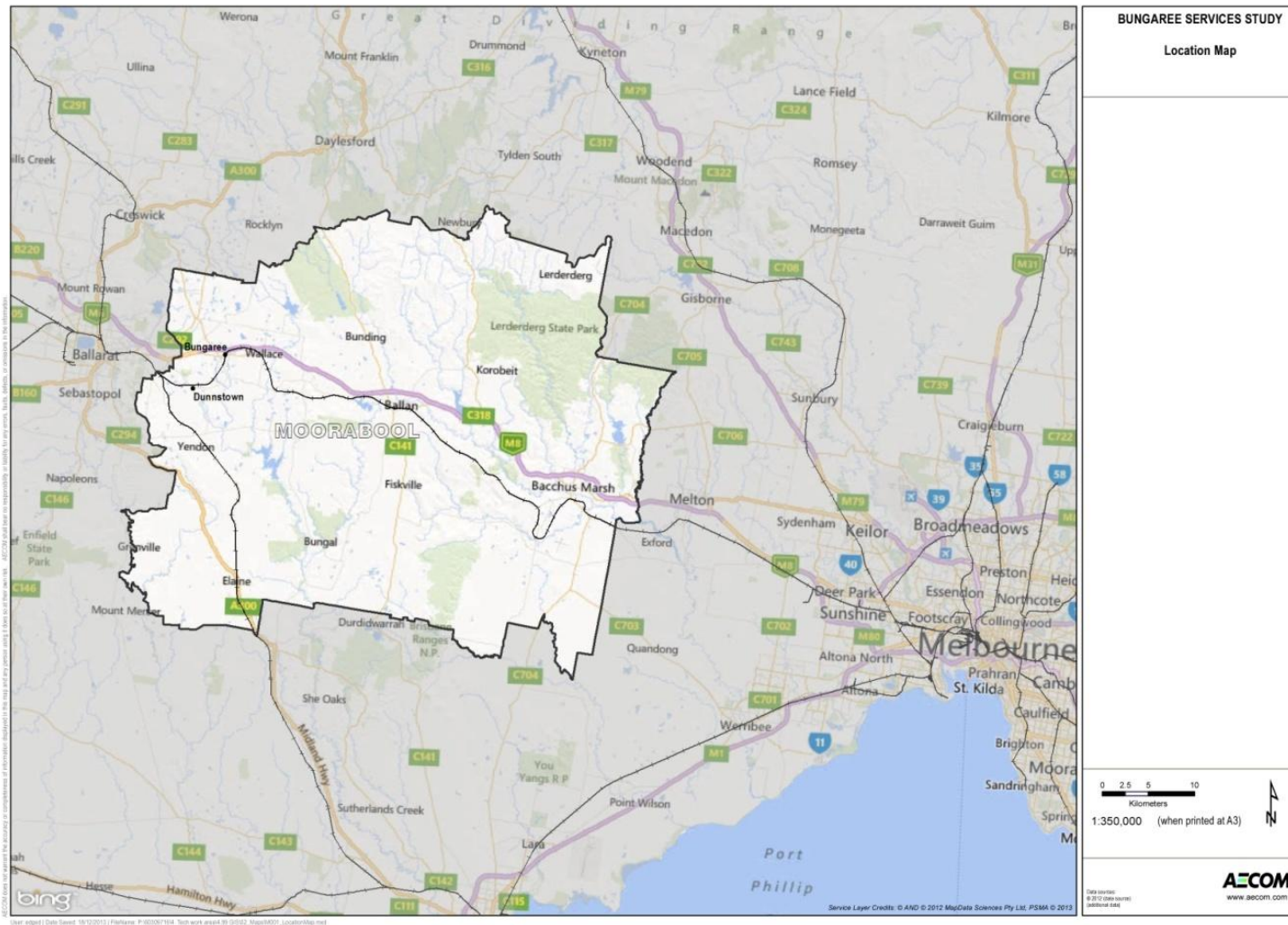


Figure 1: Shire of Moorabool and Subject Towns

2.1 Bungaree

Bungaree was first settled in 1860 and was never officially surveyed or proclaimed as a town. The township was established during Victoria's gold rush era when many migrants took up small land holdings outside of Ballarat for farming. The development of housing took further shape during the pre and post war eras. Bungaree was once a junction station and an important crossing loop on the Ballarat Rail Corridor. The station closed to passengers in 1982.

Bungaree has electricity, a general store (including petrol, post office and convenience shopping), a Maternal and Child Healthcare Centre, a Country Fire Authority and State Emergency Services station, churches, a community hall, a multi-purpose sports oval with surrounding parkland and public toilets, a primary school and a hotel. Council has also invested significantly in the upgrade of the sports oval to AFL standard, with lights, change rooms and reception facilities. The town has reticulated water and there is a high pressure gas pipeline approximately 1.7kms south of Bungaree-Wallace Road.

The community of Bungaree is located in two areas along Bungaree-Wallace Road (running east-west) and these are divided by a water body (that is likely to flood the surrounding land), as follows:

- The majority of the community is clustered around the intersection of Bungaree-Wallace Road and Bungaree-Creswick Road, and
- A second smaller cluster of houses are located near the Ballarat Rail Corridor approximately 700 metres further to the east.

Property sizes within the township vary in size, from approximately 1,000-1500sqm in the centre of town (along Bungaree-Wallace Road) up to 1.6 hectares on the town fringes.

In addition to local employment opportunities, Bungaree has excellent access to Ballarat and Melbourne, making it an opportune location for dormitory housing where people reside in Bungaree and travel to a major city for work. Bungaree is located 12 kilometres (11 minutes) from central Ballarat via Bungaree-Wallace Road and Western Freeway. The connection to Ballarat is via Bungaree-Wallace Road to a T-intersection with the Western Freeway. It is located 87km (marginally less than 60 minutes by car) from the industrial growth areas in Truganina (western Melbourne). The connection to Melbourne is via the Wallace interchange.

Physical limitations to the growth of Bungaree are the Western Freeway (to the north), the Ballarat Rail Corridor (to the east), and other physical constraints (which are further discussed in Section 6.0) such as topography and potential flooding (subject to further investigation).



Photo 1: Bungaree, looking north and west from the intersection of Lesters Road and Bungaree-Wallace Road



Figure 2: Bungaree Aerial Image

2.2 Wallace

Wallace was originally called Gordon and was surveyed and proclaimed a town in 1858. The majority of the community of Wallace has developed around the intersection of Westcotts Road (running north-south) and Old Western Highway (running east-west), on the southern side of the Western Freeway.

Wallace has electricity, a Maternal and Child Care Centre, a kindergarten, a church, a community hall, a neighbourhood house, a multi-purpose sports oval with surrounding parkland and public toilets. It is also serviced by reticulated water and gas. The former Butter Factory located within the town closed down in 1994.

Property sizes in Wallace commonly vary from approximately 1,000sqm in the centre of town (along Westcotts Road) to 1 hectare on the town fringes.

Wallace is approximately 4kms from Bungaree. It has excellent access to Ballarat and Melbourne. It is located 17 kilometres (13 minutes) from central Ballarat via Bungaree-Wallace Road and Western Freeway, with a transport interchange located directly to the north of the town. It is located 82km (55 minutes by car) from the industrial growth areas in Truganina (western Melbourne).

Physical limitations to the growth of Wallace are the Western Freeway (to the north), the Ballarat Rail Corridor which already bisects the town twice (to the west and to the south), and other constraints such as topography and flooding (subject to further investigation).



Photo 2: Wallace, looking north and west from the intersection of Westcotts Road and Bungaree-Wallace Road



Figure 3: Wallace Aerial Image

2.3 Dunnstown

Dunnstown was first settled in early 1860's, but was never officially surveyed or proclaimed as a town. Dunnstown also dates back to the gold rush era and in the late 1800's Dunnstown was a major town with a sawmill and a distillery. The majority of the community of Dunnstown have located around the intersection of Old Melbourne Road (running east-west) and Dunnstown-Yendon Road (running north-south) on the southern side of the Ballarat Rail Corridor.

Dunnstown has electricity, a community hall, a multi-purpose sports oval with public toilets, a primary school and a hotel. The opportunity for reticulated water is under investigation as part of this Study.

Property sizes in Dunnstown vary from approximately 400sqm in the centre of town (along Ti-Tree Road) to 2.6 hectares on the town fringes.

Dunnstown has good access to Ballarat and fair access to Melbourne, making it an opportune location for dormitory housing. Dunnstown is located 12 kilometres (12 minutes) from central Ballarat via Old Melbourne

Road. It is located 93km (approximately 65 minutes by car) from the industrial growth areas in Truganina (western Melbourne), unlike Bungaree and Wallace it is further away from the Western Freeway.

Physical limitations to the growth of Dunnstown are the Ballarat Rail Corridor (to the north), and other constraints such as topography and potential flooding (subject to further investigation).



Photo 3: Dunnstown, looking west from the intersection of Ti Tree Road and Old Melbourne Road



Figure 4: Dunnstown Aerial Image

3.0 Planning Framework

This section provides a summary of relevant State, regional and local planning policy.

3.1 Proclaimed Water Catchment

Proclaimed water catchments supply water for domestic, irrigation or other purposes within Victoria and are protected under the *Catchment and Land Protection Act 1994*. Under this Act, catchments that are designated for potable water supply purposes are further protected as Declared Special Areas (Water Supply Catchments).

Approvals for activities conducted under a planning scheme must be referred to the responsible land management authority (Central Highlands Water, Corangamite Catchment Management Authority and/or Department of Environment and Primary Industry) for approval.

As shown in Figure 5, Bungaree, Wallace and Dunnstown are within a Declared Water Supply Catchment that forms part of the following Lal Lal Reservoir and Moorabool River catchments and adjacent to a Declared Special Area that forms part of the Ballarat catchment.

Three documents that are relevant to these catchments are:

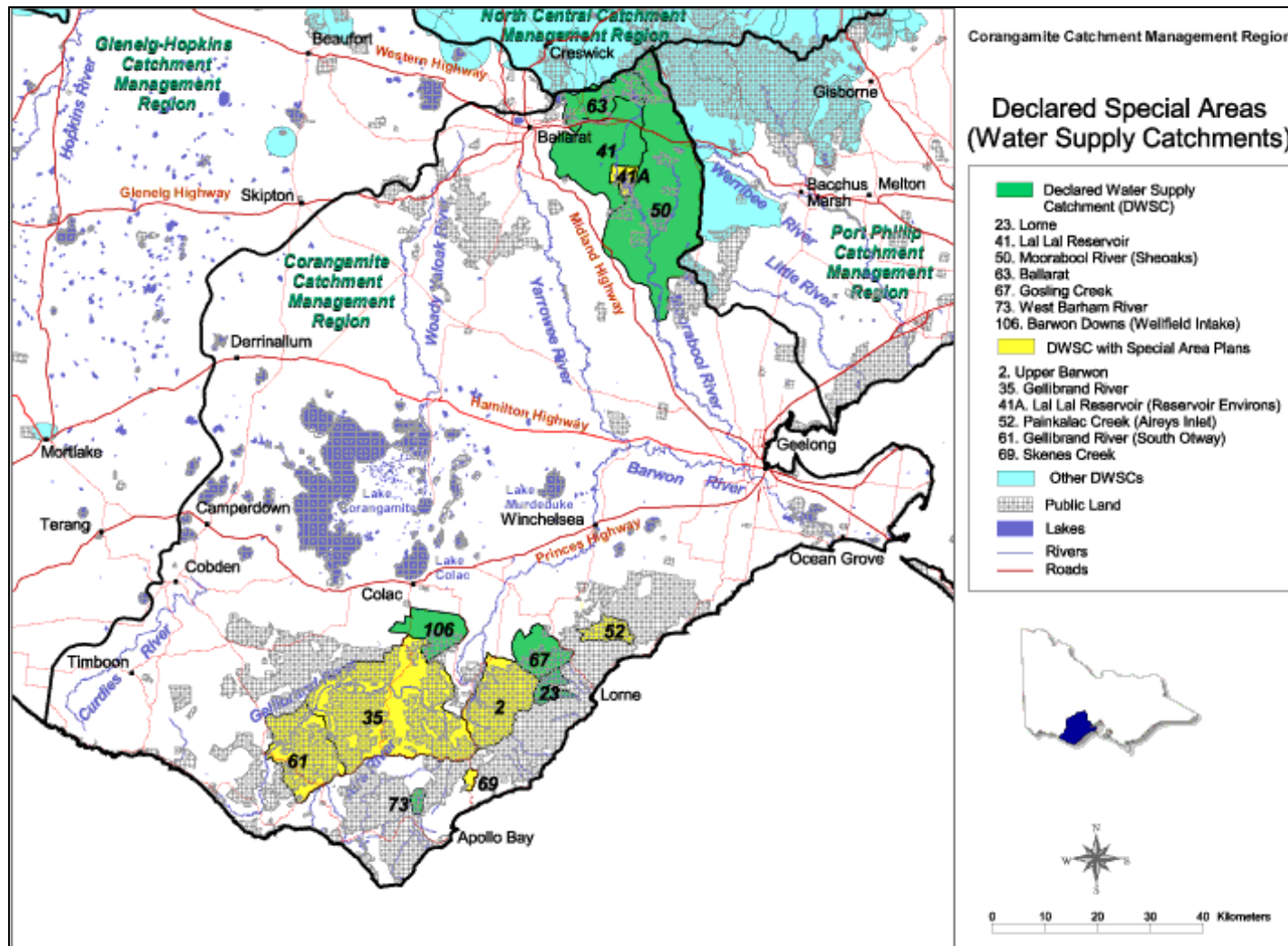
- *Report for a Proposed Land Use Determination in the Lal Lal Water Supply Catchment, Soil Conservation Authority, 1977*
- *Report on the Lal Lal Reservoir Water Supply Catchment (West Moorabool Water Board), Land Conservation Council, 1973*
- *Proposal for Proclamation Prepared for Consideration, Soil Conservation Authority, 1979.*

These reports seek to limit the development of land within the proclaimed water catchments in order to maintain water quality. The reports identify a range of water quality issues that would be exacerbated by further urban land use intensification. The one exception is support for urban development in Bungaree and Wallace to the smallest extent possible in areas that could be sewered in the future. The *Proposal for Proclamation Prepared for Consideration, Soil Conservation Authority, 1979* seeks to prohibit industry within the study area, whilst the other reports seek to ensure compliance with EPA Guidelines.

The planning controls for the development of land uses within water supply catchments in summarised in the *Planning Permit Applications in Open, Potable Water Supply Catchment Areas, November 2012*. The document states:

- The density of dwellings should be no greater than one dwelling per 40 hectares, unless the Environmental Significance Overlay is applied and the proposed development will be connected to reticulated sewerage.
- Higher densities may be allowed where the site is not connected to reticulated sewerage where Central Highlands Water is satisfied that Council has prepared and is implementing a Domestic Wastewater Management Plan*, and the proposal does not present an unacceptable risk to the catchment.

*The Shire of Moorabool is currently preparing a draft Domestic Wastewater Management Plan.



Source: Department of Environment and Primary Industries

Figure 5: Proclaimed Water Catchment

3.2 Moorabool Planning Scheme

3.2.1 State Planning Policy Framework

The State Planning Policy Framework seeks to encourage sustainable land use outcomes. The following clauses are considered to be directly relevant to the consideration of urban growth within Bungaree, Wallace and Dunnstown:

Clause 11: Settlement

Planning should anticipate and respond to the needs of existing and future communities. Planning for rural areas should consider the following policies contained in Clause 11:

- *Retain population and employment in rural areas to support rural communities.*
- *Guide the structure, functioning and character of each settlement taking into account municipal and regional contexts and frameworks.*
- *Balancing strategic objectives to achieve improved land-use and development outcomes at a regional, catchment and local level.*
- *Preserving and protecting features of rural land and natural resources and features to enhance their contribution to settlements and landscapes.*
- *Encouraging an integrated planning response between settlements within regions and in adjoining regions and states.*
- *Providing for appropriately located supplies of residential, commercial, and industrial land across a region, sufficient to meet community needs.*

Clause 13 Environmental risks

Planning should identify and manage the potential for the environmental risks and environmental changes. Strategic planning should consider and appropriately locate land uses with consideration to:

- Flooding
- Land contamination
- Erosion and landslip
- Salinity
- Noise and air emission impacts
- Bushfire.

Clause 14 Natural Resource Management

Planning is to assist in the conservation and wise use of natural resources. Land use planning should have consideration to:

- The protection of productive farmland which is of strategic significance in the local or regional context
- Protect farmland loss from unplanned land use changes
- Land use changes are to have consideration to agricultural activities contribution to the regional economy
- Compatibility of the proposed land use with agricultural activity.

Clause 19 Infrastructure

The development of social and utility infrastructure should be provided in an efficient, equitable, accessible and timely manner. Infrastructure should be planned to support the logical provision and roll-out of infrastructure in line with demographics and spatial planning. Planning should have regard to:

- The location and provision of health-related and education facilities to meet demographic trends
- The fair distribution of cultural and sporting facilities.
- The use of Development Contribution Plans to contribute to the financial cost of infrastructure

- The protection of water quality in water supply catchments from contamination by urban, industrial and agricultural land uses
- Stormwater management to protect wetlands and estuaries.

3.2.2 Local Planning Policy Framework

The Moorabool Planning Scheme sets out the planning framework for land use and development within the Shire.

Clause 21.03 Small Towns

Clause 21.03 identifies the need to prepare Structure Plans for Wallace and Dunnstown.

Clause 21.09 Small Towns

Clause 21.09 of the Moorabool Planning Scheme sets out the planning framework for land use in Small Towns, including Bungaree, Wallace and Dunnstown. The policy earmarks that Council will prepare a small town's strategy to review the constraints and opportunities for urban growth in the small towns, followed by the preparation of Structure Plans.

Key issues and influences are:

- Small towns, such as Bungaree, Dunnstown and Wallace provide a limited level of services and facilities to their residents and the surrounding rural areas.
- The towns have experienced limited growth.
- Wallace has a considerable infrastructure advantages including natural gas, the old butter factory and a full interchange to the Western freeway.
- The population has declined as a result of demographic changes and a reduction in the number of people working on farms
- Strategies are needed to achieve sustainable population sizes in small towns.
- The zones abutting small town boundaries need to be reviewed to identify where further sustainable residential development could occur.
- Small towns within Special Water Catchment Areas would need to be sewered in order to enable urban development.

The objective for these Small Towns contained in Clause 21.09 is to provide for their '*sustainable development*'. The strategies to achieve this objective are to:

- *Support limited development in small towns as an additional residential choice.*
- *Provide a clearly defined and compact urban form and character for the small towns with rearrangement of lot boundaries that demonstrate beneficial and sustainable use.*
- *Protect prominent view-lines in small towns particularly to and from the Western Freeway.*
- *Advocate for sewerage in the small towns.*

3.2.3 Planning Controls

Zones:

Township Zone

The Township Zone provides for residential development and a range of commercial, industrial and other uses. Lots greater than 300-500m² can be developed as of right provided that they are connected to reticulated sewerage, reticulated potable water supply and reticulated electricity supply, with the following exceptions:

- If reticulated sewerage does not exist, then all wastewater must be treated onsite in accordance with the State Environment Protection Policy (Waters of Victoria) under the Environment Protection Act 1970.
- If reticulated potable water and/or electricity do not exist then an appropriate solution to the satisfaction of Council.

A range of Retail, Office and Industry can be developed within the Township Zone subject to a planning permit.

Rural Living Zone

The Rural Living Zone provides for the development of dwellings and agricultural land uses in rural areas. Whilst Councils policy assigns a minimum lot size of 6 hectares for a dwelling on a property in the Rural Living Zone, a recent State Government announcement reduced the minimum lot size for a dwelling on a property in the Rural Living Zone down to 2 hectares where an amount is not already specified in the relevant Planning Scheme. A range of Rural Industry can be developed within the zone subject to a planning permit.

Farming Zone

Dwellings can be developed within the Farming Zone, but the standard minimum lot size is 40 hectares. There are areas where a dwelling can be developed on a 15 hectare lot, but the map in the Schedule to the Farming Zone does not have any town or street names that could be used to determine the location. Any subdivision less than 40 hectares would require approval by Central Highlands Water in accordance with the *Catchment and Land Protection Act 1994* (see Section 3.1).

Overlays:

Design and Development Overlay - Schedule 2 (DDO2)

The DDO2 seeks to ensure that the visual amenity of rural areas and townships is maintained through the management of building materials. The DDO2 is not directly relevant to the consideration of the growth of Bungaree, Wallace and Dunnstown and is not considered further in this Study.

Design and Development Overlay - Schedule 3 (DDO3)

The DDO3 seeks to ensure that sensitive land uses nearby to the Western Freeway/Highway are appropriately noise attenuated. This is relevant to the strategic planning of new growth areas in Bungaree and Wallace.

Environmental Significance Overlay - Schedule 1 (ESO1)

The ESO1 identifies the areas subject to the 'Proclaimed Water Catchment Areas' and restricts development within the subject area. The purpose of the ESO1 is to protect the quality and quantity of water produced within catchments and to allow for appropriate development of land.

In accordance with the ESO1, the construction of a dwelling in the Residential 1 Zone, Residential 2 Zone, Low Density Residential Zone, Township Zone or Rural Living Zone is permissible provided the dwelling is connected to reticulated sewerage, and no stormwater is discharged less than 100 metres from a waterway unless into an approved drainage system. If the dwelling is not connected to reticulated sewerage, then the use may be permissible provided:

- It has been demonstrated to the satisfaction of the responsible authority and the relevant water authority that the lot can contain effluent in accordance with the requirements and provisions of the State Environment Protection Policy (Waters of Victoria) and the provisions of the "Septic Tanks Code of Practice", and
- The building and its septic tank effluent absorption area are not located within 100 metres of a waterway or upstream of a dam or wetland, and
- No stormwater is discharged less than 100 metres from a waterway unless into an approved drainage system.

Heritage Overlay (HO33)

The Heritage Overlay 33 applies to the Former Brinds Distillery, located at 2830 Old Melbourne Road. The site is registered on the Victorian Heritage Register.

Bushfire Management Overlay (BMO)

The BMO seeks to identify areas at risk to bushfire hazard and to ensure appropriate land use planning to minimise risks to life and property. A permit is required to develop a range of uses, including community facilities, office, retail and dwellings. The BMO applies to land in Dunnstown, approximately 1,200 metres north of Ti-Tree Road in the vicinity of Mount Warrenheip.

3.3 Historical Council Plans and Strategies

Moorabool Shire Land Use and Development Strategy 1997

The Moorabool Shire Land Use and Development Strategy 1997 sets out a vision for the Shire. The Strategy includes land use frameworks concepts for Bungaree and Wallace that are based on the towns being seweraged.

Bungaree and Wallace Structure Plans 1993

Local structure plans were prepared in 1993 for Bungaree and Wallace by the respective Shires of Buninyong and Bungaree. The Bungaree Structure Plan proposed a compact town based on an average lot size of 4,000 square metres. The Structure Plan envisaged 177 new lots and a total population of 511 persons.

Bungaree and Wallace Sewerage Plan

Lang Dames and Campbell Aust Pty Ltd prepared a report in 1990/91 that investigated the seweraging of Bungaree and Wallace. It proposed a sewerage system that serviced controlled infill development along a route that connected the sewer to Ballarat.

3.4 Draft Central Highlands Regional Growth Plan, June 2013

The Draft Central Highlands Regional Growth Plan, June 2013 was recently completed and is proceeding through the public exhibition phase. The Plan identifies Bungaree, Wallace and Dunnstown as located within a declared water supply catchment area, with highly productive land suitable for horticulture.

The Plan supports the development of land within the Declared Water Supply Catchment provided that it will have environmental benefits for the declared water catchment, and provided that such programs can be sustainably (environmentally, socially and economically) constructed and maintained.

The Plan identifies Bacchus Marsh, Ballan and Ballarat as the growth towns in the Melbourne-Ballarat Corridor. The Plan identifies Bungaree as a small town where planning should provide for *'ongoing sustainable growth and change'* and encourages the provision of *'services either within the town or within easy commuting distance'*. Whilst the Plan does not list any specific actions for Bungaree, Wallace or Dunnstown, it does make the following statements:

- *'The major transport corridors providing links to external regions should be viewed as key opportunities to facilitate growth and development in designated settlements along those routes'*, and
- *'Other settlements (that is, other than Bacchus Marsh, Ballan and Ballarat in the Melbourne-Ballarat Corridor) will grow by smaller amounts but should be promoted as the most appropriate locations to manage urban development pressures and provide for a range of lifestyle opportunities across the region'*.

This indicates that the Plan is supportive of urban growth in Bungaree and Wallace.

In addition to supporting urban development, the Plan also highlights the importance of the area for agricultural production. The State Government is seeking to attract investment to the region to contribute to the goal to double Victoria's agricultural food and fibre production by 2030. The Plan therefore directs municipal planning schemes to promote investment in agriculture and to provide certainty for agriculture activities and their primacy over conflicting land uses in rural areas.

The Plan seeks to avoid the removal of productive agricultural land for conflicting land uses, such as rural residential uses. The Plan also recognises pressure for rural residential developments along major highways, such as the Western Highway corridor between Bacchus Marsh and Ballarat. The Plan sets out high level considerations for land use planning and encourages Council to undertake strategic planning to determine land use demand and site compatibility. The Plan seeks to ensure that rural residential development is located in appropriate and strategically justified locations that do not compromise agricultural activities, landscapes and environmental assets and values.

Key considerations are:

- An assessment in accordance with Practice Note 37 - Rural Residential Development, Nov 2013, DTPLI
- Avoiding natural hazards, including bushfire and flooding
- Whether residents live, work and recreate locally or travel outside the region and thus their contribution to the regional economy

- Residents' proximity and access to employment and higher order services
- Effects on the declared water supply catchment and any potential impacts on water quality or yield
- Consistency with the Central Highlands Regional Growth Plan and impact on regionally significant areas of agricultural production, tourism, landscape and environmental assets
- The existing supply and demand for rural residential lots in the area, including in neighbouring municipalities
- The need for further analysis to specifically locate where high quality agricultural land is located

The Plan supports the development of utility infrastructure, and specifically supports:

- The extension of reticulated gas to support industry and employment uses
- The supply of reticulated sewerage systems that can be sustainably constructed and maintained and which support the growth of smaller settlements where it will deliver environmental benefits within a Declared Water Supply Catchment.

With regards to the provision of sewerage infrastructure for small towns the Plan states *'the decision to provide a reticulated sewage system needs to be carefully considered, with business cases measured against environmental factors, anticipated growth and supported by planning policies concerning that settlement'*. It is therefore recommended that the Shire of Moorabool undertake additional market analysis to estimate realistic population expectations, determine the amount of higher density inner areas of the township that may be included in a future sewer district, and to inform where a boundary between the potential sewered urban areas and non-sewered rural residential areas should be located.

3.5 Planning Practice Note 37 – Rural Residential Development

Planning Practice Note 37 outlines key land use planning considerations for the planned growth of rural residential development. The Shire of Moorabool has advised that it would seek to apply the Township Zone (and not the Rural Living Zone) and thus this guideline is not directly relevant. However, this guideline highlights the types of land use planning considerations that should be taken into account when planning for new growth areas. Furthermore, it is not uncommon for zones that provide for the establishment of rural residential development to be applied in order to meet market demand. This type of situation can be seen in Ballan, Gordon and Yendon where the Township Zone is enveloped by the Rural Living Zone. If the Low Density Residential or Rural Living Zone were to be applied to Bungaree and Wallace in the future, then their application should have regard to the considerations below.

Where it is proposed to encourage the growth of rural residential land uses (Low Density Residential, Rural Living Zone or Green Wedge A Zone) in agricultural areas then an assessment must be undertaken that considers:

- Population projections, demographic and housing trends
- Supply and demand for housing types
- Site context and impacts to agricultural activities, environmental assets, community and utility infrastructure, and existing nearby land uses
- Consistency with State, regional and local planning policies and strategies
- Where there is no existing settlement strategy, the provision and cost of providing community and utility infrastructure for growth areas. This includes a description of:
 - Availability of existing infrastructure – eg. schools, public transport, roads and waste disposal.
 - Services that will need to be supplied / upgraded
 - Costs and options of providing the services / infrastructure.

Practice Note 37 also states that the location of rural residential land uses:

- Must not impede long term growth of fully serviced residential development at standard densities.
- Is inappropriate on land that is suitable for present or future residential use at urban densities.
- Is not appropriate on land that is in a special water supply catchment area.
- Must consider alternative locations within the host and neighbouring municipalities.

The size of properties within rural residential areas is generally to be:

- Low Density Residential:
 - At least 0.2 hectares where the land is sewerred
 - At least 0.4 hectares where the land is not sewerred.
- Rural Living Zone
 - At least 2 hectares where not specified in the schedule to the zone.
 - Any lot size as specified in the schedule to the zone.

4.0 Demographics

This section provides an overview of the existing population within the communities of Bungaree, Wallace and Dunnstown. The data is sourced from the 2011 Census (Australian Bureau of Statistics). Table 1, Table 2 and Table 3 provide the population (by age cohort), the total number of dwellings and the number of people per household. The purpose of this information is not only to characterise the community, but to also inform the need for certain types of services and likely future household composition based on growth scenarios.

The demographic data has been provided for the following (ABS defined) locations:

- Moorabool Local Government Area.
- Moorabool (S) - Bacchus Marsh SLA
- Moorabool (S) - Ballan SLA
- Moorabool (S) - West SLA
- Suburb - Bungaree
- Suburb - Dunnstown
- Suburb - Millbrook (incl. Wallace)

There are several data sets that are directly relevant to this study, and two that are indirectly relevant. The Moorabool Local Government Area is directly relevant as it provides the total population for the Shire. The Moorabool (S) - West SLA (Statistical Local Area) is directly relevant as it provides the total population for the geographic area that the three towns are location within. The Suburbs of Bungaree, Dunnstown and Millbrook are also directly relevant as they provide the population for each of the three towns and their surrounding communities.

The ABS includes Wallace within the catchment of Millbrook and is referred to in the tables below as 'Suburb - Millbrook (incl. Wallace)', however in the body of this report as we only use the term Wallace. The other Statistical Local Area of Bacchus Marsh and Ballan are included for comparative purposes only. As the ABS statistical boundaries do not necessarily align with the township boundaries, the data is limited to this extent.

Table 1 below shows that the enumerated¹ population of Moorabool was 26,997 people in the 2011 Census. The 'usual place of residence' population of Moorabool was 28,124 in the 2011 Census, indicating that on the night of the 2011 Census 1,127 people were away from what they identify as their usual place of residence in Moorabool.

The vast majority of Moorabool's residents live in the Bacchus Marsh (65%) and the Ballan (23%) catchments, and only a comparatively small percentage live in the West SLA catchment (12%). This reflects the strong support for urban growth around Bacchus Marsh (in the east of the Shire) as a major regional town and the limited opportunity for urban growth in the west of the Shire due to the Proclaimed Water Catchment Area, which applies to a vast area in Moorabool's western region and surrounds (see Figure 5).

The population for the West SLA is approximately 3,400 people. The data in Table 1 highlights that there is a relatively high percentage of young people within the SLA, which is likely to be reflective of young families. For example, 0-24 year old represent 32% of the population, with the vast majority being in the 0-14 age group (21%). There are only a small percentage of people in the 25-34 age group (7%), with each age cohort thereafter increasing as a percentage of the whole. This is reflective of an ageing population. This is likely to be reflective of people in the 15-24 and 25-34 age cohorts relocating to other locations for education and employment opportunities.

Table 1: Population Counted at Home on Census Night – Moorabool LGA, West SLAs - Bacchus Marsh, Ballan and West

Years	Moorabool LGA	Moorabool (S) - Bacchus Marsh SLA	Moorabool (S) - Ballan SLA	Moorabool (S) - West SLA
0-14	5,790	3,838	1,249	697 (21%)
15-24	3,362	2,304	676	380 (11%)
25-34	2,719	1,915	558	251 (7%)
35-44	3,944	2,600	905	436 (13%)

¹ Counted at home on Census Night.

Years	Moorabool LGA	Moorabool (S) - Bacchus Marsh SLA	Moorabool (S) - Ballan SLA	Moorabool (S) - West SLA
45-54	4,166	2,535	1,069	566 (17%)
55-64	3,577	2,129	922	525 (16%)
65-74	2,048	1,196	525	325 (10%)
75-84	997	633	228	139 (4%)
>85	394	250	101	43 (1%)
Total	26,997	17,400	6,233	3,362 (100%)
As a % of people living in Moorabool	100%	65%	23%	12%
As a % of people living in West SLA				

Source: Australian Bureau of Statistics

Table 2 shows the population for the ABS Suburbs of Bungaree, Wallace and Dunnstown. As can be seen in Table 2, the populations of each town and its (ABS defined) catchment are Bungaree - 381 people, Dunnstown - 247 people, and Wallace - 339 people. The split between the age cohorts generally reflects the municipal profile of the Moorabool West SLA.

Table 2: Population Counted at Home on Census Night – Bungaree, Dunnstown and Millbrook (incl. Wallace)

Years	Suburb - Bungaree	Suburb - Dunnstown	Suburb - Millbrook (incl. Wallace)
0-14	72	56	88
15-24	45	28	38
25-34	38	16	24
35-44	56	27	38
45-54	49	45	60
55-64	61	27	40
65-74	42	29	29
75-84	13	16	14
>85	5	3	8
Total	381	247	339
As a % of people living in Moorabool	1.4%	0.9%	1.3%
As a % of people living in West SLA	11.3%	7.3%	10.1%

Source: Australian Bureau of Statistics

Table 3 shows the total number of dwellings and number of people per household. As can be seen in Table 3, the total number of dwellings in each town and its (ABS defined) catchment are Bungaree - 143 dwellings, Dunnstown - 93 dwellings, and Wallace - 116 dwellings. Using the population data above and the total number of dwellings, the municipal average household size is 2.68 people per household, which is generally consistent with the townships of Bungaree and Dunnstown at 2.66, but lower than Wallace at 2.92. Interestingly, the number of people per household is only slightly higher in the Bacchus Marsh SLA (2.73) where there has been considerable growth and there are many young families with children.

Table 3: Total occupied private dwellings

Location	Total dwellings	No. of people per household
Moorabool LGA	10,076	2.68
Moorabool (S) - Bacchus Marsh SLA	6,379	2.73
Moorabool (S) - Ballan SLA	2,433	2.56
Moorabool (S) - West SLA	1,266	2.66
Suburb - Bungaree	143	2.66
Suburb - Dunnstown	93	2.66
Suburb - Millbrook (incl. Wallace)	116	2.92

Source: Australian Bureau of Statistics

As shown in Table 4, there are 212 0-4 year olds in the Moorabool West SLA, and in Bungaree - 26, Dunnstown - 13, and Wallace - 19².

Table 4: 0-4 Age Cohort

Location	0-4 Years
Moorabool LGA	1,860
Moorabool (S) - Bacchus Marsh SLA	1,259
Moorabool (S) - Ballan SLA	385
Moorabool (S) - West SLA	212
Suburb - Bungaree	26
Suburb - Dunnstown	13
Suburb - Millbrook (incl. Wallace)	19

Source: Australian Bureau of Statistics

Table 5 shows the State Government projections for the population in Victoria and the Shire of Moorabool. The State projects an additional 1.5 million people in Victoria between 2011-2031. It also projects that the population of the Bacchus Marsh SLA catchment to almost double, the Ballan catchment to increase by 30% over the same period, and the Moorabool West SLA catchment to increase by 9% over the same period.

In the Moorabool West SLA, the population increase would equate to 127 new dwellings at 2.7 people per household. The Moorabool West SLA takes up a large geographical area consisting of in excess of 12 towns. Therefore expected growth in Bungaree, Wallace and Dunnstown is likely to equate to 10 additional households per town over the next 20 years, or one house per town every two years.

It is noted however, that the Victoria in Future statistics only consider demographic trends based of historical data, and do not take into account planning policies that may seek to implement change and population growth. As such, it is expected that policies to encourage population growth will result in a larger population by 2031.

Table 5: Victoria in Future Population Projections

SLA Name	2011	2016	2021	2026	2031
Victoria	5,621,210	6,067,702	6,500,653	6,924,141	7,326,564
Moorabool (S) - Bacchus Marsh	18,953	21,893	24,819	27,704	30,528
Moorabool (S) - Ballan	6,708	7,272	7,788	8,307	8,817
Moorabool (S) - West	3,748	3,842	3,924	4,008	4,092

Source: Victoria in Future, 2012

² The provision of child care facilities and services has been identified in this study as a potential infrastructure gap. For this reason, additional information about this age cohort has been provided.

5.0 Community Infrastructure

This section provides an overview of the process to identify and evaluate the provision of community infrastructure in each town. It relies on information provided to AECOM by the Shire of Moorabool about community infrastructure in each town. This information includes:

- *Sports Facility Demand Analysis and Strategy for Bacchus Marsh and Surrounds and Ballan, September 2012*
- *Comparative Services and Constraints Matrix – Moorabool Towns, Shire of Moorabool*
- *Correspondence from the Shire of Moorabool, 28 November 2013*
- *Moorabool Shire Council Social and Community Infrastructure (SCI) Gaps Analysis Final Report, June 2013³*

The *Guide to Social Infrastructure Planning, 2009* has been used to provide the metrics against which to measure the provision and capacity of community infrastructure. This is consistent with Council's use of the Guide in the recently completed *Moorabool Shire Council Social and Community Infrastructure (SCI) Gaps Analysis Final Report, June 2013*.

The ratios in the *Guide to Social Infrastructure Planning, 2009* are not statutory requirements, nor are they guidelines that State planning policy require adherence to. The ratios are only indicators that have been developed by industry to assist Councils and the Growth Areas Authority with the planning of community facilities in growing suburbs located on Melbourne's outer fringes.

The *Guide to Social Infrastructure Planning, 2009* was prepared for suburban high growth communities on the fringe of Melbourne, a significantly different context to that found in Bungaree, Wallace and Dunnstown. However, there is limited other published reference material available to inform this type of assessment.

5.1 Community Facilities

Table 6 lists community, utility and other infrastructure in Bungaree, Wallace and Dunnstown (as supplied by Council). This data was taken from the *Comparative Services and Constraints Matrix – Moorabool Towns, Shire of Moorabool*. The data in Table 6 has been used to analyse the provision of community infrastructure in each community.

The legend accompanying Table 6 and Table 8 is:

- Y: This type of facility is located in the town.
- Y¹: A high pressure gas pipeline is located 1.7kms to the south of the town centre.
- P¹: Historical train station/siding exists but services do not stop at the town.
- P²: Waste Kerbside Services are limited.
- UI: Under investigation for provision of the service in the town.
- Blank cells: This type of facility does not exist within the town.

Table 6: Comparative Services and Constraints Matrix – Moorabool Towns, Shire of Moorabool

Facilities	Bungaree	Dunnstown	Wallace
Community Services			
Electricity	Y	Y	Y
Banks/ATMs	Y		
Library			
Post Office	Y		
Shire Office			
Court House			
Hospital			
Maternal & Child Health Centre			Y

³ Provided by the Shire of Moorabool Planning Department

Facilities	Bungaree	Dunnstown	Wallace
Doctor/Medical Centre			
CFA	Y		
Police Station			
Ambulance			
SES	Y		
Church	Y	Y	Y
Railway (station/siding)	P ¹	P ¹	P ¹
Retirement Village			
Farmers Market			
Shire Managed Social Housing			
Community Facilities			
Halls and Community Centres	Y	Y	Y
Neighbourhood Houses			Y
Park and public toilet	Y	Y	Y
Sports Facilities (courts/oval)	Y	Y	Y
Art Galleries/Museums			
Education			
Childcare Centre/Pre School			Y
Primary school	Y	Y	
Secondary school			
Tertiary			
Other			
Pub/Hotel	Y	Y	Y
Pharmacy			
Visitor Information Centre/kiosk			
Café/Restaurant			
Accommodation	Y		Y
Fuel Sales	Y		
General Store	Y		
Retail precinct			
Utilities Connected			
Water	Y	UI	Y
Sewer	UI		UI
Gas	UI		Y
Waste Kerbside Service	P ²	P ²	P ²

Source: Shire of Moorabool

5.2 Community Infrastructure Ratios

The community infrastructure ratios shown in Table 7 are sourced from the *Comparative Services and Constraints Matrix – Moorabool Towns, Shire of Moorabool*, which is a summary of the *Guide to Social Infrastructure Planning, 2009*.

Table 7: Community Infrastructure Ratios

Service Type	Trigger
Early Years	
Four Year Old Kindergarten Facilities	2.3 double 4 year old kindergarten facilities for every 10,000 people. 3.8 double kindergarten facilities per 1,000 zero to four year olds. 66 places per 1,000 zero to four years olds
Maternal & Child Health Services	8.7 centres per 100,000 total population, or 7.1 centres per 1000 births 1.4 dual M&CH centres per 1,000 zero to four year olds.
Playgroups	40 playgroups for every 100,000 people 6.5 playgroups per 1,000 zero to four year olds
Occasional Child Care Centres	3.2 centres per 100,000 people 5.3 centres per 10,000 0-4 year olds 1.7 places per 100 0-4 year olds
Long Day Child Care Centres	1.6 long day child care centre per 10,000 people. 2.7 centres per 1,000 zero to four year olds 23 places per 100 zero to four year olds
Outside School Hours Care Centres	21.4 places per 100 children aged 5-9 years
Early Childhood Intervention Services	1.6 centres per 10,000 children aged 0-6 years
General Community Services	
Centre Based Libraries	1 Library per 30,000-60,000 people
Neighbourhood House Spaces	1 Neighbourhood House per 20,000 people
Community Meeting spaces - Small	1 1-20 people venue per 4,000 people
Community Meeting spaces - Small to Medium	1 21-50 people venue per 8,000 people
Community Meeting spaces - Medium	1 51-100 people venue per 8,000 people
Community Meeting spaces - Medium to Large	1 101-200 people venue per 8,000 people
Community Meeting spaces - Large	1 200+ people venue per 20,000 people
Youth Facilities/Youth Friendly Space	Youth friendly spaces designed as part of Level 1 multi-purpose council community centres (1 Centre per 8,000 people)
Youth Resource Centres	1 youth resource centre incorporated within Level 3 multi-purpose Council community centres) per 30,000 – 60,000 people
Multi-purpose Community Centres - Small	1 Level 1 or 2 multi purpose community centre per 8,000 to 10,000 people
Multi-purpose Community Centres - Medium	1 per 40,000 to 50,000 people
Planned Activity Groups	1 PAG per 40,000 to 60,000 people
Arts and Cultural Facilities	
Community Art Space - Flexible, Multipurpose, Shared Use	Spaces to be provided within Level 1 Multi-Purpose Community Centre (1 per 8,000 to 10,000 people)
Performing Art or Exhibition Facilities - Co-located, Dedicated Space	1 co-located (e.g. government secondary college) performing arts facility per 40,000 to 60,000 people
Community Arts Centre	1 Level 3 community arts centre per 40,000 to 60,000 people
Public Art	1 Level 3 Public Art project per 40,000 to 60,000 people

Service Type	Trigger
Education & Training	
Government Primary Schools	1 government primary school per 8,000 to 10,000 people
Government Secondary Schools	1 government secondary school per 25,000 to 30,000 people
Catholic Primary Schools	1 Catholic primary school per 18,000 people
Catholic Secondary Schools	1 Catholic Secondary per 58,000 people
Specialist School	1 specialist school per 50,000 people
Health and Community Services	
Community Based Health Care - Small to Medium	1 per 10,000-50,000 people
Indoor Recreation	
Council Indoor Aquatic/Fitness Centres or Leisure Centres	1 per 40000 people
Indoor Recreation Courts	1 court per 10,000 people
Active Outdoor Sport and Recreation and Passive Open Space	
Active Open Space Reserves - Small	One Level 1 active open space reserve (8 ha per active open space reserve) per 6,000 people.
Active Open Space Reserves - Medium to Large	1 higher order active open space reserve (30 ha open space reserve) per 50,000 people.
Neighbourhood Active Open Space Reserve - Pavilions (Small)	1 per 6,000 people (or designated active recreation reserve)
Neighbourhood Active Open Space Reserve - Pavilions (Medium)	1 per 50,000 people
Passive open space reserves - Including Playgrounds	0.7 to 1 ha of passive open space per 1,000 people
Tennis Courts	1 court per 2,000 people
Australian Rules Football Ovals	1 oval per 4,000 people
Lawn Bowls Facility	1 lawn bowls facility (4 greens) per 40,000 people
Cricket Ovals	1 oval per 3,000 people
Soccer Fields	1 field per 5,000 people
Netball Courts	1 court per 2,000 people
Emergency Services	
Integrated Emergency Service Precinct (Police, Fire, Ambulance, SES)	1 per 37,000 people across all services
<ol style="list-style-type: none"> 1. Australian Social and Recreation Research (ASR), 2008 <i>Planning for Community Infrastructure in Growth Areas</i> 2. Recreation benchmarks are taken from <i>Sports Facility Demand Analysis and Strategy for Bacchus Marsh & Surrounds and Ballan</i>, 2012 	

5.3 Community Infrastructure Analysis

The list of community infrastructure in Table 6, the community infrastructure ratios in Table 7, in conjunction with the demographic data in Section 3.2 was used to analyse the capacity for population growth within each town. This has been used to create Table 8 which provides an analysis of the existing conditions in each town and the opportunities for and constraints on population growth. The assessment evaluates whether the level of existing community infrastructure in Bungaree, Wallace and Dunnstown is likely to be a constraint and given existing facilities, and what future population could be supported based on each facility type. The analysis assumes that the facilities within each town are part of a network – that provide services for the population located in any of the three towns and their surrounds. That is, a facility may only be located on one town, but it meets the needs of the three towns.

Table 8: Community Facilities Analysis

Facilities	B	D	W	Community Facility Ratios	Ratios for Study Area	Community Facility Context and Current Level of Service Provision within the Shire of Moorabool	Level of Constraint to urban growth and Implications
Community Services							
Banks/ATMs	Y			NA	NA	The nearest banks are located in Ballan.	The provision of banks is a market response. This is not a constraint for urban growth in Bungaree or Wallace.
Library				1:30,000-60,000 people	1 in the Shire	There is one library in Bacchus Marsh. The library provides an online ordering service with delivery to Bungaree, Wallace and a number of other towns in the area.	As the population grows there is likely to be increased demand for library services. However, changes in the way media is consumed (i.e. electronically) may see demand plateau. It is assumed that the mobile library service will continue to function in the future. This is not a constraint for urban growth in Bungaree or Wallace.
Post Office	Y			NA	NA	A postal service is provided from the General Store in Bungaree.	The provision of a post office is a market response. This is not a constraint for urban growth in Bungaree or Wallace.
Shire Office				NA	NA	The Shire office is located in Ballan.	This is not a constraint for urban growth in Bungaree or Wallace.
Court House				NA	NA	The nearest Court house is located in Ballan.	This is not a constraint for urban growth in Bungaree or Wallace.
Hospital				Provision for whole municipality or two municipalities	Up to 1 in the Shire	The nearest hospital is located in Ballan.	This is not a constraint for urban growth in Bungaree or Wallace.
Maternal & Child Health Centre	Y		Y	8.7 centres per 100,000 total population, or 7.1 centres per 1000 births 1.4 dual M&CH centres per 1,000 zero to four year olds.	2.3 in the Shire	Wallace MCHC is open 1 day per week. It is located at the Wallace & District Family Services Hub. Services include Kindergarten, Preschool, Three Year Old Group Maternal & Child Health centre.	The Wallace & District Family Services Hub and the MCHC service supports the development of the wider district, including Dunnstown and Bungaree. This facility could potentially support up to 1,000 zero-four years olds. This would equate to approximately 16,000 households (based on the existing ratio of 0-4 year olds to the adult population – see Section 3.2). Given the existing user capacity and space within the hub there is the potential to expand the number of days that the site operates. This is not a constraint for urban growth in Bungaree or Wallace.
Church	Y	Y	Y	NA	NA	There are 5 religious groups in Ballan, and 1 in Dunnstown	Religious affiliations provide a sense of community and a foundation for community support, arguably decreasing reliance on government support networks. This is not a constraint for urban growth in Bungaree or Wallace.
Retirement Village				NA	NA	Information not available.	It is likely that demand for retirement villages with varying levels of care will increase within the Shire over the coming decades. It is likely that such services would be provided in the major urban centres of Bacchus Marsh or Ballan. This is not a constraint for urban growth in Bungaree or Wallace.
Farmers Market				NA	NA	Information not available.	This is not a constraint for urban growth in Bungaree or Wallace.
Shire Managed Social Housing				Communities of up to 10,000 people to provide for social housing	A quantity is not specified	The Office of Housing manages 280 public housing properties in Moorabool Shire.	Emerging communities may require the need for additional social housing. Council should consult with the Office of Housing, Uniting Care (Ballarat), Child and Family Services (CAFS) and Loddon Mallee Housing Services to determine future demand. This is not a constraint for urban growth in Bungaree or Wallace.
Doctors/Medical Centre				Community Based Health Care - Small to Medium: 1 per 10,000-50,000 people	2.6 in the Shire	Nearest medical practitioner is in Ballan (~20kms) and Ballarat (~13kms)	This is not a constraint for urban growth in Bungaree or Wallace.
Emergency services:							
CFA	Y			1 per 37,000 people across all services (integrated emergency services precinct with police, fire, ambulance and SES)	1 in the Shire	There is a CFA and SES station in Bungaree. Insufficient information on Council website to identify the provision of emergency services elsewhere in the Shire.	It is the role of the State Government to respond to the need for emergency services. This is not a constraint for urban growth in Bungaree or Wallace.
Police Station				as above	as above	as above	as above
Ambulance				as above	as above	as above	as above
SES	Y			as above	as above	as above	as above

Facilities	B	D	W	Community Facility Ratios	Ratios for Study Area	Community Facility Context and Current Level of Service Provision within the Shire of Moorabool	Level of Constraint to urban growth and Implications
Community Facilities							
Halls and Community Centres	Y	Y	Y	Small: 1 1-20 people venue per 4,000 people	1 (small) in Moorabool SLA West	Halls and Community Centres are provided in in Bungaree, Wallace and Dunnstown. The following activities and services are provided: <ul style="list-style-type: none"> • Dance groups • Exercise classes e.g. Pilates • Sporting club social functions • Birthday parties • Community group committee meetings • Community social occasions, e.g. casserole nights • Rural library services • Community events • Aged and Disability Planned Activity Group sessions • Children's services events • Mothers groups meetings • Playgroups • Senior Citizens groups • Youth events and activities • Funerals • School concerts Venue size is unknown. We have assumed 20 people per venue.	This is not a constraint for urban growth in Bungaree or Wallace up to at least 4,000 people per town assuming that each venue in each town can accommodate 20 people.
				Small to Medium: 1 21-50 people venue per 8,000 people	3 in the Shire	NA	NA
				Medium: 1 51-100 people venue per 8,000 people	3 in the Shire	NA	NA
				Medium-large: 1 101-200 people venue per 8,000 people	3 in the Shire	NA	NA
				Large: 1 200+ people venue per 20,000 people	1 in the Shire	NA	NA
Neighbourhood Houses			Y	1 Neighbourhood House per 20,000 people	1.25 in the Shire	1 located in Darley (Bacchus Marsh)	The population of Bacchus March will soon exceed 20,000 people. It is recommended that Council explore the opportunity for an additional neighbourhood house in Ballan, which serves the Ballan and West catchments. If the West catchment is allowed to grow then as the population of the Ballan and West catchments nears 20,000 each then a third neighbourhood house should be considered in Bungaree. This is potential constraint for urban growth in Bungaree and Wallace (and Ballan) as the population of the Shire increases.
Park and public toilet	Y	Y	Y	Passive open space reserves - Including Playgrounds: 0.7 to 1 ha of passive open space per 1,000 people	1 passive POS with playgrounds between 0.7-1ha in each community of 1,000 people	The Bungaree Recreation Reserve includes areas that could be used for passive recreation, and it includes a playground and public toilets. The Wallace Recreation Reserve includes areas that could be used for passive recreation, and it includes a playground and public toilets. The Dunnstown Recreation Reserve does not specifically include areas for passive recreation and does not include a playground.	The Bungaree Recreational Reserve could potentially support a significantly larger population of up to approximately 1,000 people. The Wallace Recreational Reserve could potentially support a significantly larger population of up to approximately 1,000 people. The lack of formal passive public open space in Dunnstown could be accommodated within the Dunnstown Recreation Reserve in the future, and is therefore not considered to be a major constraint on the growth of the towns. It is likely that any future urban development would require the provision of Public Open Space in accordance with Clause 52.03 of the Moorabool Planning Scheme by the land developer. This is not a constraint for urban growth in Bungaree or Wallace.

Facilities	B	D	W	Community Facility Ratios	Ratios for Study Area	Community Facility Context and Current Level of Service Provision within the Shire of Moorabool	Level of Constraint to urban growth and Implications
				Active Open Space Reserves - Small: One Level 1 active open space reserve (8 ha per active open space reserve) per 6,000 people.	Less than 1 Active POS of 8ha in Moorabool SLA West.	Bungaree Recreation Reserve is ~5.9ha. It includes active recreation space and clubrooms for football/cricket (1) and netball (1). Wallace Recreation Reserve is ~5.8ha. It includes active recreation space and clubrooms for football (1), netball (1) and tennis (2). Dunnstown Recreation Reserve is ~4.6ha. It includes active recreation space and clubrooms for football (1), netball (1) and tennis (2).	The Bungaree Recreational Reserve could potentially support a significantly larger population of up to approximately 4,500 people. The Wallace Recreational Reserve could potentially support a significantly larger population of up to approximately 4,500 people. The Dunnstown Recreational Reserve could potentially support a significantly larger population of up to approximately 3,500 people. This is not a constraint for urban growth in Bungaree or Wallace up to approximately 3,500-4,500 people per town.
				Active Open Space Reserves - Medium to Large: 1 higher order active open space reserve (30 ha open space reserve) per 50,000 people.	Less than 1 in the Shire	See above	See above
				Neighbourhood Active Open Space Reserve - Pavilions (Small): 1 per 6,000 people (or designated active recreation reserve)	Less than 1 in the Moorabool SLA West	See above	See above
				Neighbourhood Active Open Space Reserve - Pavilions (Medium): 1 per 50,000 people	Less than 1 in the Shire	See above	See above
Sports Facilities (courts/oval)	Y	Y	Y	Tennis Courts: 1 court per 2,000 people	1 tennis court in Moorabool SLA West	Bungaree has 2 tennis courts Wallace has 2 tennis courts Dunnstown has 2 tennis courts	All towns could support up to 2,000 people. This is not a constraint for urban growth in Bungaree or Wallace
				Australian Rules Football Ovals: 1 oval per 4,000 people	1 Aussie Rules Football Oval in Moorabool SLA West	See description under Active Open Space	All towns could support up to 4,000 people. This is not a constraint for urban growth in Bungaree or Wallace.
				Lawn Bowls Facility: 1 lawn bowls facility (4 greens) per 40,000 people	1 Lawn Bowl Facility in Shire	The nearest lawn bowls facility is in Ballan.	This is not a constraint for urban growth in Bungaree or Wallace.
				Cricket Ovals: 1 oval per 3,000 people	1 Cricket Oval in Moorabool SLA West	See description under Active Open Space	All towns could support up to 3,000 people. This is not a constraint for urban growth in Bungaree or Wallace
				Soccer Fields: 1 field per 5,000 people	Less than 1 Soccer Field in Moorabool SLA West	The nearest soccer facility is in Bacchus Marsh.	This is not a constraint for urban growth in Bungaree or Wallace.
				Netball Courts: 1 court per 2,000 people	1 Netball Court in Moorabool SLA West	See description under Active Open Space	All towns could support up to 2,000 people
Art Galleries/Museums				Community Art Space - Flexible, Multipurpose, Shared Use: Spaces to be provided within Level 1 Multi-Purpose Community Centre (1 per 8,000 to 10,000 people)	3 Community Art space in Shire	There is no dedicated space in the Shire. Art is often exhibited in a small space in the Lerderderg Library, Bacchus Marsh. There is the opportunity to display art within Halls and Community Centres.	This is a potential constraint for urban growth in the Shire. This is unlikely to be a constraint for urban growth in Bungaree or Wallace. It is likely that the community hall could be used periodically as a community art space.
				Performing Art or Exhibition Facilities - Co-located, Dedicated Space: 1 co-located (e.g. government secondary college) performing arts facility per 40,000 to 60,000 people	Less than 1 in the Shire	See above	See above
				Community Arts Centre: 1 Level 3 community arts centre per 40,000 to 60,000 people	Less than 1 in the Shire	See above	See above
				Public Art : 1 Level 3 Public Art project per 40,000 to 60,000 people	Less than 1 in the Shire	See above	See above

Facilities	B	D	W	Community Facility Ratios	Ratios for Study Area	Community Facility Context and Current Level of Service Provision within the Shire of Moorabool	Level of Constraint to urban growth and Implications
Education							
Childcare Centre/Pre School			Y	Four Year Old Kindergarten Facilities 2.3 double 4 year old kindergarten facilities for every 10,000 people. 3.8 double kindergarten facilities per 1,000 zero to four year olds. 66 places per 1,000 zero to four years olds	Less than 1 kindergarten for Moorabool West SLA.	The Wallace & District Family Services Hub includes Kindergarten, Preschool, Three Year Old Group Maternal & Child Health centre	The Wallace Preschool has the capacity to increase services. The preschool room can accommodate 32 children with 24 children currently enrolled (75% enrolment). The Wallace Kindergarten has capacity to include an additional group of 30 children if required. It is also likely that many households will use services provided close to their place of employment, which in many cases is likely to be in Ballan, Ballarat, Bacchus Marsh and Melbourne. It is likely that the Wallace Preschool and Kindergarten would support 38 additional places, which equates to 500 0-4 years olds. This translates to 8,000 households (based on the existing ratio of 0-4 year olds to the adult population – see Section 3.2). The provision of kindergarten facilities and services has the potential to be a constraint if the facilities cannot be expanded.
				Playgroups 40 playgroups for every 100,000 people 6.5 playgroups per 1,000 zero to four year olds	Less than 1.3 playgroups in Moorabool West SLA	The nearest playgroups are in Millbrook and Lal Lal.	Wallace & District Family Services Hub has capacity to expand. As the population grows this type of service could be provided at existing Council facilities. It is also likely that many households will use services provided close to their place of employment, which in many cases is likely to be in Ballan, Ballarat, Bacchus Marsh and Melbourne. This is unlikely to be a constraint for the urban growth of Bungaree and Wallace.
				Occasional Child Care Centres 3.2 centres per 100,000 people 5.3 centres per 10,000 0-4 year olds 1.7 places per 100 0-4 year olds	2 Occasional Child Care Centres in the Shire	The nearest Occasional Care is in Darley (Bacchus Marsh)	Wallace & District Family Services Hub has capacity to expand. It is also likely that many households will use services provided close to their place of employment, which in many cases is likely to be in Ballan, Ballarat, Bacchus Marsh and Melbourne. The provision of occasional child care facilities and services has the potential to be a constraint.
				Long Day Child Care Centres 1.6 long day child care centre per 10,000 people. 2.7 centres per 1,000 zero to four year olds 23 places per 100 zero to four year olds	Less than 1 Long Day Child Care Centre in the Shire	Refer to comments under kindergartens	Wallace & District Family Services Hub has capacity to expand. It is also likely that many households will use services provided close to their place of employment, which in many cases is likely to be in Ballan, Ballarat, Bacchus Marsh and Melbourne. The provision of long day child care facilities and services has the potential to be a constraint.
				Outside School Hours Care Centres 21.4 places per 100 children aged 5-9 years	9 places for Outside School House Care Centres within the Moorabool West SLA	There were 178 Outside School Hours places across the municipality in Bacchus Marsh, Ballan and the Rural East. No services are provided in the Moorabool West SLA.	It is likely that demand for such a service would increase as the community grows. It is also noted that the Ballan Primary School ceased services in 2011 due to funding (the Age, August 15 2011). It is likely that the provision of such services will be constrained by future funding availability. However, it is unlikely that this is a constraint for urban growth as there is no statutory requirement to provide this service.
				Early Childhood Intervention Services 1.6 centres per 10,000 children aged 0-6 years	Less than 1 Early Childhood Intervention Services centre in the Shire	This service is provided within Shire.	This is not a constraint for urban growth in Bungaree or Wallace
Primary school	Y	Y		1:8,000-10,000 people (govt)	3 in the Shire	There are 19 primary schools in the Shire.	It is the role of the Department of Education to meet demand. It is the role of Council to inform the Department of strategic plans that will lead to demographic change. The <i>Guideline</i> recommends 1 Government School per 8,000-10,000 people

Facilities	B	D	W	Community Facility Ratios	Ratios for Study Area	Community Facility Context and Current Level of Service Provision within the Shire of Moorabool	Level of Constraint to urban growth and Implications
							and one Catholic School per 18,000 people. A key and use planning issue for the Primary Schools in Bungaree (Government, 26 enrolments) and Dunnstown (Catholic, 31 enrolments) is ensuring that long term opportunities to acquire adjacent land for the school are not lost due to other short term development opportunities. The provision of primary school facilities and services is not a constraint for urban growth in Bungaree and Wallace.
				1:18,000 people (private)	1.5 in the Shire	As above.	The provision of primary school facilities and services is not a constraint for urban growth in Bungaree and Wallace.
Secondary school				1:25,000-30,000 people (govt)	1 in the Shire	NA	It is the role of the Department of Education to meet demand. It is the role of Council to inform the department of strategic plans that will lead to demographic changes. The provision of secondary school facilities and services is not a constraint for urban growth in Bungaree and Wallace.
				1:58,000 people (private)	Less than 1 in the Shire	There are two secondary schools in Bacchus Marsh. There are also several secondary schools in Ballarat.	The provision of secondary school facilities and services is not a constraint for urban growth in Bungaree and Wallace.
Tertiary				NA	NA	NA	NA
Other							
Youth Resource Centre				1 youth resource centre incorporated within Level 3 multi-purpose Council community centres) per 30,000 – 60,000 people	Less than 1 in the Shire	There is no youth centre in Bacchus Marsh	Unlikely to be a constraint for urban growth
Planned Activity Groups				1 PAG per 40,000 to 60,000 people	Less than 1 in the Shire	A PAG is provided within the Shire	Unlikely to be a constraint for urban growth
Council Indoor Aquatic/Fitness Centres or Leisure Centres				1 per 40,000 people	Less than 1 in the Shire	The nearest (seasonal) aquatic centre is provided in Ballan	Unlikely to be a constraint for urban growth
Indoor Recreation Courts				1 court per 10,000 people	3 in the Shire	The Sports facility Demand Analysis and Strategy for Bacchus Marsh & Surrounds and Ballan identified that it is not currently viable for indoor recreation centres in Moorabool.	Unlikely to be a constraint for urban growth
Waste Kerbside Service	P ²	P ²	P ²	NA		Waste pick up services are provided once per month.	It is likely that the population increases that demand for pick up waste services will increase. For comparative purpose, Ballan is provided with a weekly service in the urban area. Unlikely to be a constraint for urban growth

5.4 Community Facilities and Population Thresholds

The community facilities and services that are most likely to influence the opportunity for urban growth in Bungaree and Wallace are the provision of:

- Childcare and preschool facilities
- Maternal Child and Health Care facilities
- Recreational facilities
- Halls and community facilities.

Childcare and preschool facilities

The Wallace and District Family Services Hub provides Kindergarten, Preschool, Three Year Old Group Maternal & Child Health Care services. The services are located at 729 Bungaree-Wallace Road, Wallace. The Kindergarten / preschool, Child Care and Day Program operate three days per week. The *Guide to Social Infrastructure Planning, 2009* estimates that 66 places can support 1,000, 0-4 year olds (a ratio of one 0-4 year old to every 15.15 people). There are 212 0-4 year olds in Moorabool West SLA and within a population of 3,362 people, equating to a ratio of one 0-4 year old to every 15.85 people. To reach a target population of 1,000 0-4 year olds there would need to be a population of approximately 15,850 people (5,960 households).

Council has advised that the Wallace Preschool has capacity to increase services (from 24 to 32) and the Wallace Kindergarten has capacity to provide an additional 30 spaces. As such, given the provision of existing facilities and assuming that the services can be expanded within the existing premises, it is likely that the facility could support approximately an additional 30 0-4 year olds.

Assuming that 30 additional 0-4 years childcare places can be provided within the community, then approximately an additional 500 0-4 year olds could be supported within the community. Based on the population ratios this equates to a total population of approximately 8,000 people (2,980 households) within the Moorabool West SLA.

Maternal Child and Health Care facilities

The MCHC facility operates one day per week, and is planned to increase to 1.5 days per week. The Wallace & District Family Services Hub and the MCHC service the wider district, including Wallace, Dunnstown and Bungaree. The *Guide to Social Infrastructure Planning, 2009* estimates that 1.4 dual centres can support 1,000 zero to four year olds. Therefore, it is estimated that one dual centre can support 714 0-4 year olds.

Assuming that the existing centre were to operate five days per week, then it is estimated that this facility could potentially support approximately 700 0-4 years' olds. Based on a ratio of one 0-4 year old to every 15.85 people, this would equate to a total population of approximately 11,095 people (4,100 households) within the Moorabool West SLA.

Recreational facilities

Within each town there is a football/cricket oval, netball courts and tennis courts. All facilities are in good condition. The *Guide to Social Infrastructure Planning, 2009* estimates that a tennis courts can support up to 2,000 people, and a football/cricket oval can support up to 4,000 people. The population capacity for each of these sporting facilities varies between 2,000-4,000 people. For the purposes of this study we have taken the highest capacity figure, which is 4,000 people to each football/cricket oval.

Both Bungaree and Wallace have football/cricket ovals, tennis courts and netball courts. As such, these facilities can support approximately 8,000 people across the two towns.

Halls and Community Facilities

Each town has a community hall which can be used as a community meeting space. The *Guide to Social Infrastructure Planning, 2009* estimates that a community meeting space with capacity for a minimum of 20 people can support approximately 8,000 people.

For the purposes of this study we have assumed that each meeting space in Bungaree and Wallace can accommodate a minimum of 20 people for events held at the facility. The population capacity for each facility is therefore estimated to be approximately 16,000 people across Bungaree and Wallace.

Summary

Based on this analysis the three towns can grow to a total population of 8,000 people across the Moorabool West SLA before Council would need to consider expanding the childcare and recreational facilities.

Table 9: Key Community Facilities Threshold Analyses

Facilities	Projected Population
Childcare/Preschool	Approximately 8,000 people across the Moorabool West SLA
MCHC	Approximately 11,200 people across the Moorabool West SLA
Recreational Facilities	Approximately 8,000 people across Bungaree and Wallace
Hall and Community Facilities	Approximately 16,000 people across Bungaree and Wallace

6.0 Land Use Opportunities and Constraints

This section provides a summary of the land use constraints and opportunities in Bungaree and Wallace. It also provides an urban growth scenario to inform the feasibility of providing reticulated sewerage in Bungaree and Wallace.

The purpose of the urban growth scenario is to inform the feasibility of providing reticulated sewerage to the towns of Bungaree and Wallace. Separate to this project, Council will complete a Structure Plan that identifies the type and location of land uses in Bungaree and Wallace. As such, the purpose of this section is purely to inform the sewer feasibility opportunities.

Figure 6 to Figure 7 show where there are residential urban growth opportunities within Bungaree and Wallace. The opportunities for urban development are subject to a detailed analysis of constraints.

6.1 Bungaree

Assets and Opportunities

The assets and opportunities in Bungaree are:

- Ample flat land in large land holdings that could be developed as part of planned subdivisions
- Existing public and open space facilities that can support a larger population
- Existing active recreational facilities that can support a larger population
- Existing hall and community centre facilities that can support a larger population
- Existing MCHC facilities that can support a larger population with expansion of services
- An existing Government School with ample surrounding land that could accommodate expansion (if needed) which could therefore support a larger population
- A network of streams that provide the opportunity for connecting the community via a network of open space pathways and nodes
- A rich heritage that provides the town with its own sense of place
- An excellent road network and proximity to the Western Freeway
- Proximity to the high pressure gas pipeline which means that the town could potentially be connected to reticulated gas in the future.
- A general store that provides an array of retail convenience goods.
- Local employment.
- Accessible to Ballan and Ballarat within a 20 minute commute, and
- The railway line through the town which could potentially provide for commuter services with a station at Bungaree.

Challenges and Physical Constraints

Summarised below are the challenges and physical constraints that will influence where and how land is used and developed in the future.

The physical constraints are:

- Environmental Significance Overlay 1 - Proclaimed Water Catchment Areas has been applied to all of Bungaree and its surrounds. This overlay requires that new subdivisions must either be provided with reticulated sewerage or be undertaken in accordance with an approved Domestic Wastewater Management Plan.
- Design and Development Overlay 3 – which requires noise sensitive developments (e.g. dwellings and child care centres) to be appropriately designed to mitigate noise impacts from the Western Freeway on the occupants of the building.

- Creeks and water bodies throughout the town that may be subject to localised flooding (subject to further investigation)
- Aboriginal Cultural Heritage Sensitivity along major creeks
- Aboriginal Cultural Heritage Place Surveys, and
- Physical infrastructure including the Western Freeway to the north, the Ballarat-Melbourne Rail Corridor to the east, the oil and gas high pressure pipeline to the south.

Conceptual growth scenario

Figure 6 shows a conceptual growth scenario for Bungaree.

Subject to any further investigations, it is considered that future urban development is best located to the west of the Ballarat Rail Corridor, south of the Western Freeway, north of Triggs Road and generally west of Torpys Road in the short term. This will result in a consolidated urban structure that envelopes the existing community facilities and which will support sustainable transport modes, such as walking and cycling.

The inner core (400-800 metres from the town centre) should be developed more intensely than the outer fringes.

Infill development should be encouraged within the existing urban areas.

Where lower densities are desirable, then these should be encouraged in locations near to the Western Freeway and Ballarat Rail Corridor. Lower densities should only be provided where it is economically feasible to provide sewerage services to these sites. Otherwise this land should be held for future residential growth at standard residential densities.

Growth to the west of Bungaree, towards Torpys Road and beyond should be protected for future growth of standard residential densities. Consequently low density development should be avoided as it would be an impediment.

The land to the north of Bungaree Recreation Reserve could be land banked as a future District Community Hub where community facilities and commercial services could be encouraged to locate. The District Community Hub could service the broader Moorabool West SLA catchment. Alternative locations for a District Community Hub are along Bungaree-Wallace Road between Torpys Road and the existing urban area, or on the south-eastern corner of Bungaree-Wallace Road and Lester Road.

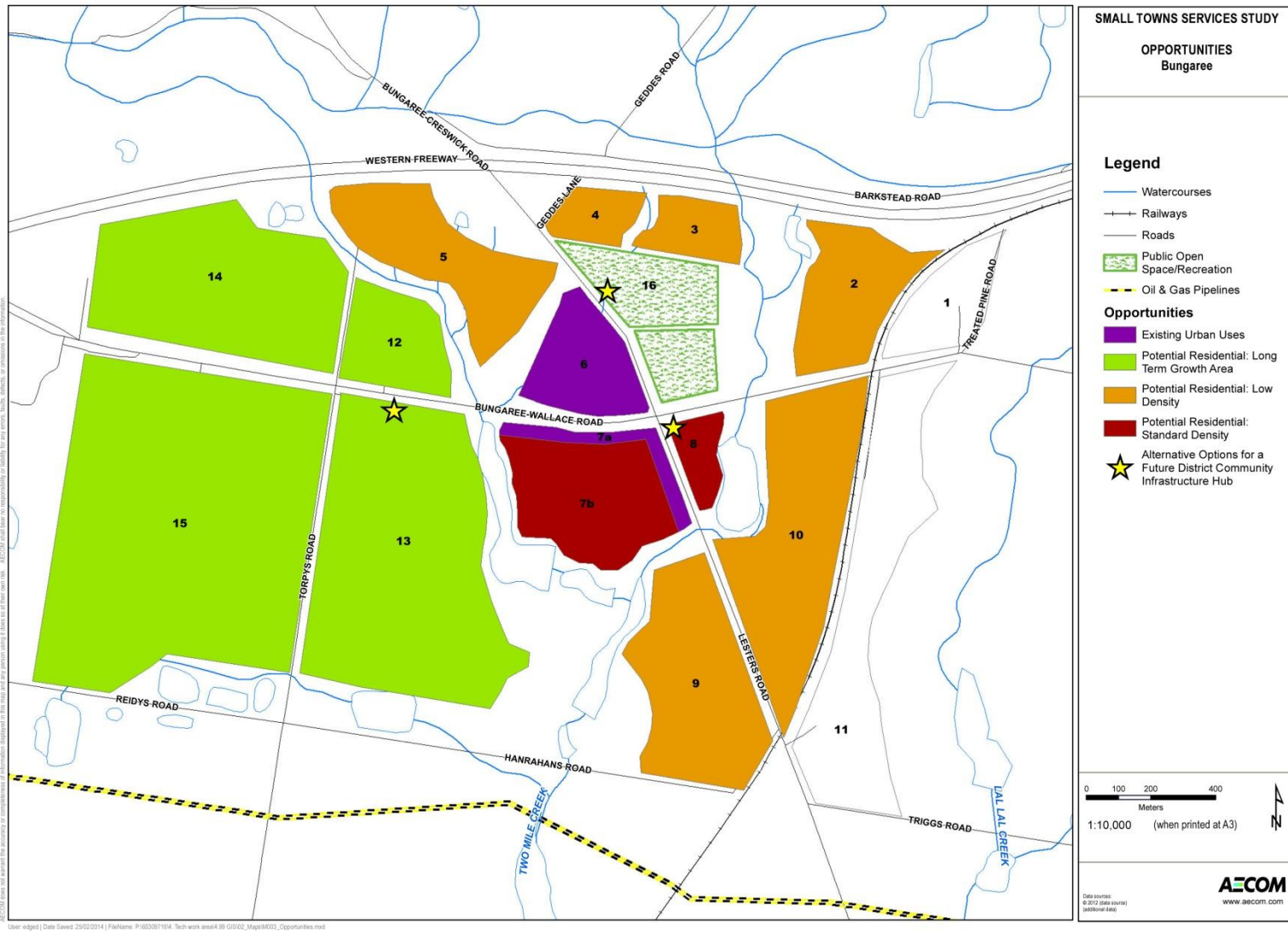


Figure 6: Bungaree Opportunities Map

6.2 Wallace

Assets and Opportunities

The assets and opportunities in Wallace:

- Ample flat land in large land holdings that could be developed as part of planned subdivisions
- Existing public and open space facilities that can support a larger population
- Existing active recreational facilities that can support a larger population
- Existing call and community centre facilities that can support a larger population
- An existing Catholic School
- A network of streams that provide the opportunity for connecting the community via a network of open space pathways and nodes
- A rich heritage that provides the town with its own sense of place
- Excellent road network and proximity to the Western Freeway
- Existing reticulated gas
- Local employment
- Accessible to Ballan and Ballarat within a 20 minute commute, and
- The railway line through the town which could potentially provide for commuter services with a station at Wallace.

Challenges and Physical Constraints

Summarised below are the challenges and physical constraints that will influence where and how land is used and developed in the future.

The constraints are:

- Environmental Significance Overlay 1 - Proclaimed Water Catchment Areas has been applied to all of Wallace and its surrounds.
- Design and Development Overlay 3 – which requires noise sensitive developments (eg. dwellings and child care centres) to be appropriately designed to mitigate noise impacts from the Western Freeway on the occupants of the building.
- Creeks and water bodies throughout the town that may be subject to localised flooding (subject to further investigation)
- Swamp and lagoon deposits in the vicinity of Wallace Railway Station
- Aboriginal Cultural Heritage Sensitivity along major creeks, and
- Physical infrastructure including the Western Freeway to the north, the Ballarat-Melbourne Rail Corridor which bisects the town, the oil and gas high pressure pipeline to the south.

Conceptual growth scenario

Figure 7 shows a conceptual growth scenario for Wallace.

Subject to any further investigations, it is considered that future urban development be located to the south of the Western Freeway, west of Moorabool River West Branch, north of Hennessys road, and east of Murphys Road. This will result in a consolidated urban structure that envelopes the existing community facilities and which will support sustainable transport modes, such as walking and cycling.

The inner core (400-800 metres from the town centre) should be developed more intensely than the outer fringes.

Infill development should be encouraged within the existing urban areas.

Where lower densities are desirable then these should be encouraged in the areas nearby to the Western Freeway nearby to the Moorabool River West Branch. Lower densities should only be provided where it is economically feasible to provide sewerage services to these sites. Otherwise this land should be held as for future residential growth at standard residential densities.

Growth to the west and south beyond the current existing urban areas should be protected for future growth of standard residential densities. Consequently low density development should be avoided as it would be an impediment.

Industrial land uses that have a low risk of impacting on water quality should be encouraged in the area to the north of Old Western Highway and east of Ormond Road, subject to discussions with the Central Highlands Water.

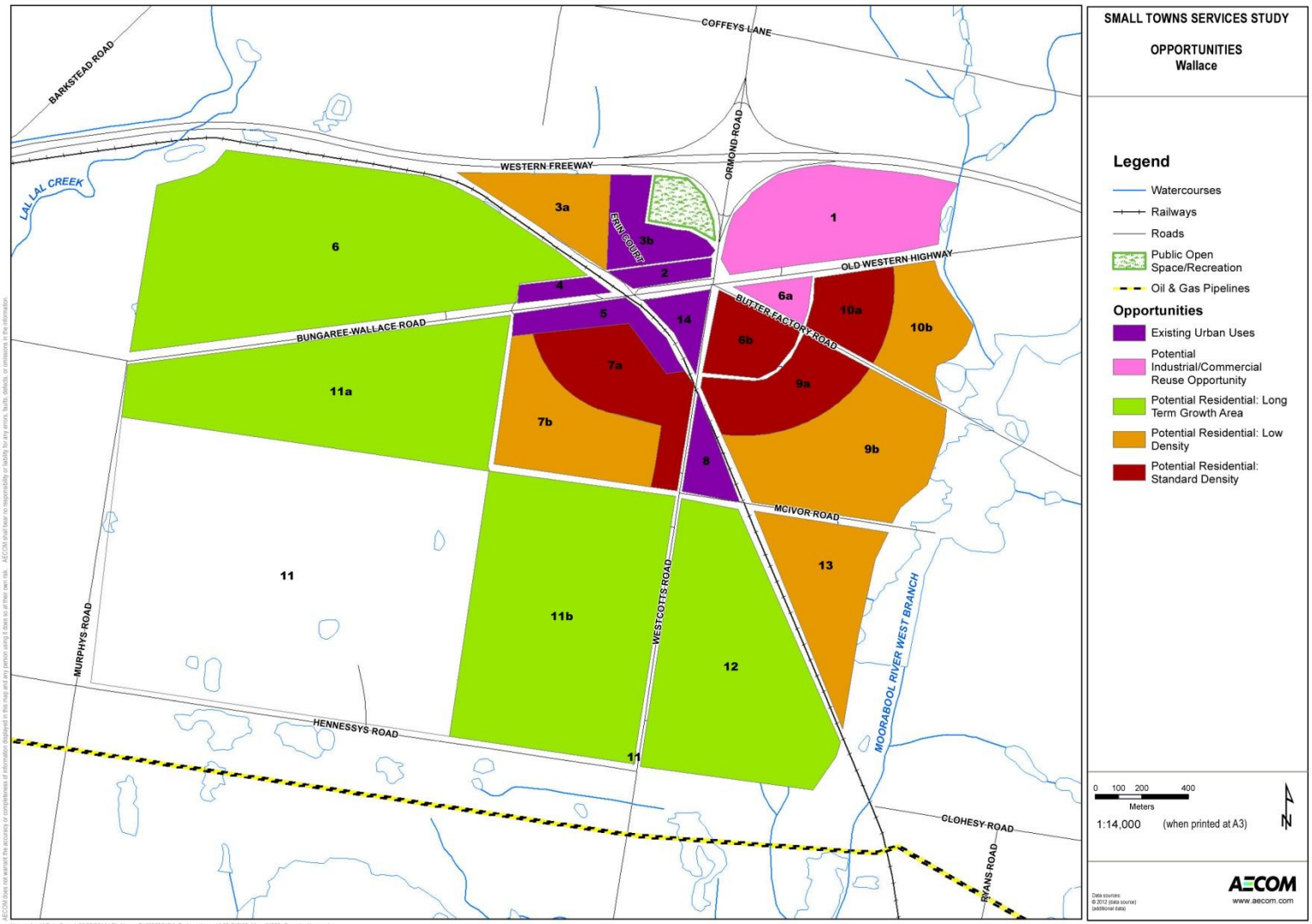


Figure 7: Wallace Opportunities Map

6.3 Urban Development and Yield

There are a range of factors that will influence peoples decision about where they will live, including, but not limited to planning policy and regulations, land availability, lifestyle, age, transport options, available services, price, proximity to family, property size and amenity.

The Draft Central Highlands Regional Growth Plan, June 2013 identifies areas along the Western Highway, such as Bungaree and Wallace, as locations where there is likely to be pressure for residential urban development as they provide excellent access to commute to Ballarat and Melbourne. It also identifies the region as a location in demand for “tree-change retirees” looking for large rural allotments.

Further investigation is required to determine the market opportunities for residential urban development in Bungaree and Wallace in light of the broader regional housing market and the comparative cost of establishing new subdivisions in rural and urban settings. The analysis needs to confirm what properties and housing type mix would be in successful in Bungaree and Wallace. External factors that are likely to influence this are local comparative options in areas outside of the Proclaimed Water Protection Catchment (for example to the south of Ballarat) and the release of land for the progressive development of 18,000 new households in Ballarat West.

To calculate how much land is required to meet future population growth we have conservatively assumed that the majority of property sizes will be 1,000sqm and the minority will be up to 2,000sqm. These property sizes reflect the common property sizes found within Bungaree, Wallace and other nearby small towns. By comparison property sizes in the growth areas of Bacchus Marsh, the largest growth town in the Shire of Moorabool, vary from approximately 400sqm to 2,000sqm.

Generally, reticulated sewerage networks are provided to residential developments with standard densities (less than 2,000 square metres), and on-site septic systems have been provided for Low Density Residential and Rural Residential areas (greater than 2,000 square metres). To enable the affordable provision of sewerage, it will be important to resolve how many existing and new households could be connected to the network. Higher densities will yield lower connection costs per household. Whilst higher densities will be financially attractive from the perspective of the infrastructure provider, the size of properties must take into account what is likely to be a marketable product in the local and regional context, especially when compared against with the cost of similar lot sizes in other rural and urban areas and the services available in those areas.

Further to the Opportunity Maps for Bungaree and Wallace, we have developed property yields and population projections for each town based on a property size of 1,000-2,000sqm, less 30% of land for roads, open space and infrastructure. The population yields are indicative only and are subject to a detailed assessment of constraints.

Table 10 below provides a summary of Table 11. Table 11 overleaf provides a detailed breakdown of population and property yields for each precinct. The precincts in Table 11 can be cross-referenced with the precincts shown in the Opportunity Maps (see Figure 6 and Figure 7).

For the purposes of this study we have identified more land than what is required to meet the population capacity target. As summarised in Table 10, if all of the precincts were to be developed then the combined population of existing and new areas would be 13,895 people. This is significantly more than the population capacity of the community facilities and services of Bungaree and Wallace. The benefit of this approach is that enables Council to use Figure 6, Figure 7 and Table 11 to select areas where it would prefer to see urban development and to then calculate the likely population yield for each precinct.

Table 10: Development Yields

Staging	Properties	People
Existing population	267	720
Short to mid-term development opportunities	1,136	3,067
Infill development opportunities	41	110
Long term future growth area opportunities	3,703	9,998
Total development yield	5,146	13,895

Land Devt - Standard Density								
Precinct	Available Hectares	Square metres	Less POS / Roads	Property Size	No. of Properties	Person p/house	Population	Staging
Bungaree								
1	5	50,000	35,000	1000	35	2.7	95	Further subdivision not recommended
2	10	100,000	70,000	2000	35	2.7	95	Short-mid term opportunity
3	5	50,000	35,000	2000	18	2.7	47	Short-mid term opportunity
4	4	40,000	28,000	2000	14	2.7	38	Short-mid term opportunity
5	16	160,000	112,000	2000	56	2.7	151	Short-mid term opportunity
6	2	20,000	14,000	1000	14	2.7	38	Infill development opportunities
7	17	170,000	119,000	1000	119	2.7	321	Short-mid term opportunity
8	3.3	33,000	23,100	1000	23	2.7	62	Short-mid term opportunity
9	21	210,000	147,000	2000	74	2.7	198	Short-mid term opportunity
10	26	260,000	182,000	2000	91	2.7	246	Short-mid term opportunity
11	25	250,000	175,000	1000	175	2.7	473	Further subdivision not recommended at this stage
12	9	90,000	63,000	1000	63	2.7	170	Long term future growth area
13	45	450,000	315,000	1000	315	2.7	851	Long term future growth area
14	73	730,000	511,000	1000	511	2.7	1,380	Long term future growth area
15	31	310,000	217,000	1000	217	2.7	586	Long term future growth area
16	10	100,000	70,000	1000	70			Potential opportunity for community services hub for district
Sub-total: Bungaree					141		381	Existing Properties and Population within catchment
					429		1159	Short-mid term opportunity
					14		38	Infill development opportunities
					1106		2986	Long term future growth area
					35		95	Further subdivision not recommended
					70		0	Potential opportunity for community services hub for district
Wallace								
1	34	340,000	238,000	10000	24	2.7	-	Industrial Precinct Opportunity
2	0.5	5,000	3,500	1000	4	2.7	9	Infill development opportunities
3	8	80,000	56,000	8000	7	2.7	19	Infill development opportunities
4	0.5	5,000	3,500	1000	4	2.7	9	Infill development opportunities
5	1	10,000	7,000	1000	7	2.7	19	Infill development opportunities
6	10	100,000	70,000	1000	70	2.7	189	Short-mid term opportunity
7a	24	240,000	168,000	1000	168	2.7	454	Short-mid term opportunity
7b	25	250,000	175,000	2000	88	2.7	236	Short-mid term opportunity
8	0	-	-		-	2.7	-	Built out
9a	20	200,000	140,000	1000	140	2.7	378	Short-mid term opportunity
9b	35	350,000	245,000	2000	123	2.7	331	Short-mid term opportunity
10a	8	80,000	56,000	1000	56	2.7	151	Short-mid term opportunity
10b	18	180,000	126,000	2000	63	2.7	170	Short-mid term opportunity
11a	80	800,000	560,000	1000	560	2.7	1,512	Long term future growth area
11b	100	1,000,000	700,000	1000	700	2.7	1,890	Long term future growth area
12	69	690,000	483,000	1000	483	2.7	1,304	Long term future growth area
13	24	240,000	168,000	2000	84	2.7	227	Long term future growth area
14	0.8	8,000	5,600	1000	6	2.7	15	Infill development opportunities
15	110	1,100,000	770,000	1000	770	2.7	2,079	Long term future growth area
Sub-total: Wallace					126		339	Existing Properties and Population within catchment
					707		1909	Short-mid term opportunity
					27		72	Infill development opportunities
					2597		7012	Long term future growth area
					0		0	Further subdivision not recommended
Totals for Bungaree and Wallace					24		0	Potential opportunity for industrial precinct
					267		720	Existing Properties and Population within catchment
					1136		3067	Short-mid term opportunity
					41		110	Infill development opportunities
					3703		9998	Long term future growth area
Total for Bungaree and Wallace					35		95	Further subdivision not recommended
					94		0	Potential opportunity for community services hub and industry precinct
					5146		13895	Total properties and population

Table 11: Development Yields by Precinct

7.0 Summary

State, regional and local planning policy prevent the subdivision of land within a Declared Water Supply Catchment that results in less than 1 dwelling per 40 hectares, unless the property(s) are connected to reticulated sewerage. This policy has historically prevented the growth of Bungaree, Wallace and Dunnstown as these towns do not have a reticulated sewerage system. This policy is implemented through the Moorabool Planning Scheme through the Environmental Significance Overlay 1.

The exception to this is where an approved Domestic Waste Water Management Plan allows for urban development without the provision of reticulated sewerage. In this situation it would be expected that the Domestic Waste Water Management Plan would allow for interim urban development on the proviso that reticulated sewerage would ultimately be provided. It is understood that Council and Central Highlands Water may reach an agreement to allow for some residential urban growth without reticulated sewerage in accordance with an approved Domestic Waste Water Management Plan.

Council's planning policies highlight that there has been a period of population decline in Bungaree and Wallace due to demographic changes in the farming communities that surround the towns. The decline in population has made the funding and viability of community services and facilities more challenging. As such, Council is seeking to understand the capacity of existing community facilities and services in Bungaree and Wallace to service a larger population.

The recent Draft Central Highlands Regional Growth Plan, 2013 highlights that there is recent and growing pressure for new housing within communities located along the Western Highway between Melbourne and Ballarat, such as Bungaree and Wallace. The Regional Growth Plan supports urban development within the Declared Water Supply Catchment provided that it will have environmental benefits for the declared water catchment, and provided that such programs can be sustainably (environmentally, socially and economically) constructed and maintained. It also seeks to ensure that future urban growth does not result in the loss of high quality agricultural land. As such, Council is seeking to plan for the expected increase in demand for future residential urban growth in Bungaree and Wallace.

This Study has identified the potential population capacity of each town based on existing community facilities, and it has identified potential areas where each town could grow based on available information.

This study has estimated that the community facilities in Bungaree and Wallace could support a combined population of approximately 8,000 people before Council will need to expand these facilities. To inform the feasibility study for reticulated sewerage we have also identified where the population could potentially be located within Bungaree and Wallace. The purpose of this was not to develop Structure Plan to guide where the towns could grow, but only to establish an urban development scenario to inform the theoretical design and feasibility assessment for providing reticulated sewerage infrastructure in Bungaree and Wallace. Using this method we identified sufficient land to support a population of approximately 13,895 people in Bungaree and Wallace (subject to further analysis of constraints).

We note that before urban growth occur that further and more detailed targeted planning and community consultation, including (for example) a market analysis, environmental studies, land capability assessment and the like should be undertaken by Council.