



3 Yarrowonga West

03

Yarrowonga West

3.1 Study Area

There are two study areas in Yarrowonga: 1. West of Benalla-Yarrowonga Road; and 2. East of Botts Road. This section considers the Yarrowonga West study area, with Section 4 considering Yarrowonga East.

The Yarrowonga West Study Area is shown in Figure 3.1 below.

It covers an area of approximately 140ha between 2 and 3km south-west of the Yarrowonga Town Centre. It is generally bounded by the Benalla - Yarrowonga Road to the east, the Street James – Yarrowonga Railway to the south, Reillys Road and existing low density residential development to the west, and the Main Irrigation Channel to the north.

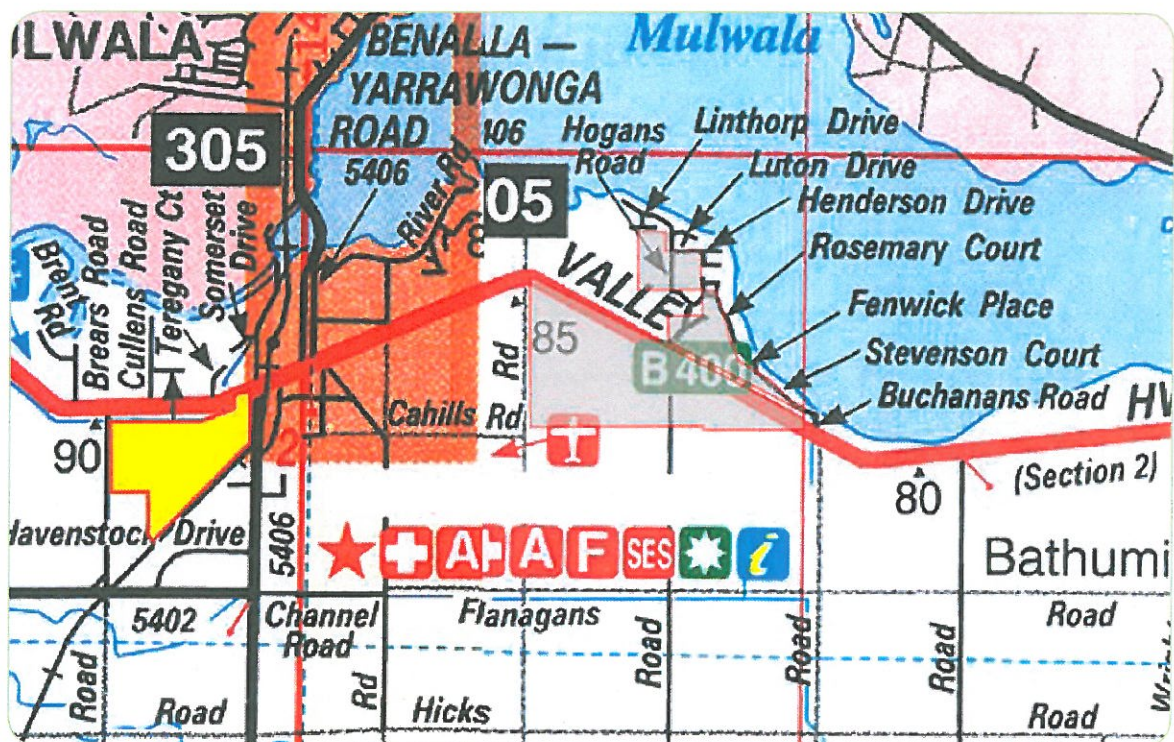


Figure 3.1 - Yarrowonga West Study Area, RACV Vicroads Ed 4.

3.2 Site Analysis

The Site Analysis Plan is included as Attachment 3.1. An aerial photo of the Study Area is also included with this attachment. This section summarises the key features, opportunities and constraints, traffic issues, and infrastructure issues of the Study Area.

3.2.1 Key features & opportunities & constraints

Below, key features and the opportunities and constraints of the Study Area are identified:

- The Study Area comprises two separately owned titles with a combined approximate area of 120ha. It is currently vacant of any buildings.
- An existing tree plantation occupies land directly west of Benalla – Yarrawonga Road. Adjacent to this exist several groups of non-plantation trees.
- Benalla – Yarrawonga Road forms the Study Area's eastern boundary. This is a key road providing direct access between Benalla and Yarrawonga. At this point it provides direct access to industrial businesses and some residential development.
- Reillys Road forms the Study Area's western boundary. This is a local road providing access to rural properties and some low density residential development.
- Pine View Drive, an area of low density residential development, abuts the Study Area to the south-west.
- Potential road connections exist from: Benalla – Yarrawonga Road; Reillys Road; and the northern extension of Pine View Drive. Connections to the Murray Valley Highway are not possible due to the existence of the Main Irrigation Channel.
- The Benalla – Yarrawonga Railway line forms the Study Area's southern boundary. The frequency of use of this line appears low.
- The Yarrawonga Town Centre exists between 2 and 3 km north-east of the Study Area. Easy access to the Town Centre from the Study Area is via Benalla – Yarrawonga Road and the Murray Valley Highway.



- Yarrawonga Secondary School is located approximately 1km east of the Study Area.
- Victoria Park is located approximately 1km east of the Study Area. Additional open space is available to the north along Lake Mulwala.
- Land within the Study Area immediately adjacent to the Benalla – Yarrawonga Road has been nominated by Council as a potential business area/ development.
- A concrete batching plant operates from residential land on the corner of Benalla – Yarrawonga Road and Pearce Street. This batching plant requires an approximate 300m buffer to residential development.
- The Main Irrigation Channel forms the northern Study Area boundary. The Channel is within an approximately 100m wide reserve and is a significant infrastructure item with high, inaccessible banks. Access across this channel is not feasible.
- Several areas of potential inundation exist across the Study Area. These are identified by the Land Subject to Inundation Overlay (LSIO) in the Planning Scheme.

These features, opportunities and constraints significantly influence the layout of the Development Plan. How they influence the DP is discussed further in Section 3.4.1.

3.2.2 Traffic Issues

Traffic movements will be constrained by the irrigation channel along the northern boundary of the Development Plan area, and also by the railway line along the south-eastern boundary. Accordingly only connections to Burley Street (east side) and Reillys Road (west side) will be possible.

The Development Plan area is 140 hectares which is likely to yield around 960 dwelling sites. The associated traffic generation of more than 6,500 vehicle movements per day, the majority of which will be easterly orientated will need two connections to Burley Street if excessive concentrations of traffic are to be avoided.

3.2.3 Infrastructure issues

Electricity

Powercor Australia Ltd is the Network service provider for the study area.

The existing overhead infrastructure in the vicinity of the study area can be utilised to supply the proposed development.

In the event that the existing high voltage lines need reconductoring or extending as a consequence of a detailed assessment of the loading demands within the study area, Powercor's current policies dictate this work generally be completed at Powercor's cost, but Developers should confirm specific requirements and conditions by formal application to Powercor.

The usual strategy of High Voltage underground cable extensions to substations sited as appropriate throughout the development with Low Voltage domestic underground cable reticulation to the lots would apply.

In relation to development costs, current policy conforms to the statutory requirement for Powercor to allow construction to be carried out comprising a mix of non-competitive works (ie works to be done by the Network service provider) and competitive works (ie works to be done by accredited contractors). Powercor will provide a fee offer and procedural conditions upon formal application.

Telecommunications

Telstra is the network service provider and they advise that they have a statutory responsibility to provide a network service to the respective property boundaries of the sites within the study area. The usual developer shared trenching conditions would apply within the proposed development (i.e. developer to fund shared trenching).

Telstra has existing assets in the vicinity of the study area. The need or otherwise to upgrade their network assets would be investigated in detail at the time of application for a Planning Permit.

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Sewerage

North East Region Water Authority (North East Water) is the responsible water authority.

North East Water has existing assets in the vicinity of the study area.

North East Water advises that the study area can be fully serviced. The servicing can be achieved in part by extensions to their existing gravity sewerage reticulation mains and in part via the construction of new sewerage pumping stations, rising mains and gravity reticulation mains.

The cost of new works would have to be borne by either the Developer(s) or North East Water in accordance with the statutory guidelines of the Essential Services Commission, Victoria (ESC). Generally, non-shared reticulation assets within a Developer's landholding that are 225mm or less in diameter are to be fully funded by the Developer. Larger trunk mains or shared distribution assets are to be fully funded by North East Water or otherwise by agreement between North East Water and the Developer(s) with ESC consent. There are formulae that apply to the funding of shared distribution assets whereby in the event that the said asset is not reasonably expected to be funded within North East Water's financial forward planning, then the Developer is required to contribute to the cost of the works.

Detailed conditions relating to the required development works can be obtained upon formal application to North East Water.

Potable Water

North East Region Water Authority (North East Water) is the responsible water authority.

North East Water has existing assets in the vicinity of the study area.

North East Water advises that the study area can be fully serviced. The servicing can be achieved by the construction of water reticulation main



extensions throughout the study area and connecting to the existing nearby assets. North East Water acknowledges that some of their nearby assets may have to be augmented to provide adequate supply and that their water storage facility will have to be upsized to provide the necessary security of supply during periods of peak demand.

The cost of new works would have to be borne by either the Developer(s) or North East Water in accordance with the statutory guidelines of the Essential Services Commission, Victoria (ESC). Generally, non-shared reticulation water mains within a Developer's landholding that are 150mm or less in diameter are to be fully funded by the Developer. Larger trunk mains or shared distribution assets are to be fully funded by North East Water or otherwise by agreement between North East Water and the Developer(s) with ESC consent. There are formulae that apply to the funding of shared distribution assets whereby in the event that the said asset is not reasonably expected to be funded within North East Water's financial forward planning, then the Developer is required to contribute to the cost of the works.

Detailed conditions relating to the required development works can be obtained upon formal application to North East Water.

Drainage

Moira Shire Council is the responsible drainage authority for the study area and the receiving water of the stormwater runoff from the study area is Lake Mulwala on the Murray River. The stormwater will discharge to Lake Mulwala via a series of existing and proposed retarding basins, wetlands, pumping stations, rising mains, underground piped and open stormwater outfall drains.

Moira Shire is desirous of the stormwater drainage works within the study area being designed to accord with the current best practice principles contained in "Urban Stormwater Best Practice Environmental Guidelines, CSRIO 1999".

As such, the post construction performance objective of the drainage system is to achieve 80% retention of the typical urban load of suspended solids, 45% retention of the typical urban load of total phosphorus, 45% retention of the typical urban load of total nitrogen and 70% retention of the typical urban load of litter. Furthermore, flows from the study area need to be retarded such that they do not exceed the pre-development discharge that would result from a storm having an average recurrence interval of once every 1.5 years. Moira Shire will also require retardation to cater for the 1 in 100 year event.

Development will also have to accord with the construction phase performance objectives of limiting and preventing sediment, litter and other pollutants from entering the receiving waters.

Consequently, Development within the study area will have to accord with the "Best Practice Guidelines" and Developers will have to consider the adoption of "Water Sensitive Urban Design (WSUD)" principles.

Costs for drainage works including water quality improvement and retardation will be borne by the Developers.

Initial engineering computations indicate that a minimum of 8 - 10% of the land area within the DP is required to retard and treat stormwater. As the channel exists on the high land, the water quality treatment areas are primarily located on the south-east part of the land.

3.3 Planning Context

3.3.1 Zoning

The zoning of the Study Area is illustrated in Figure 3.2 below.

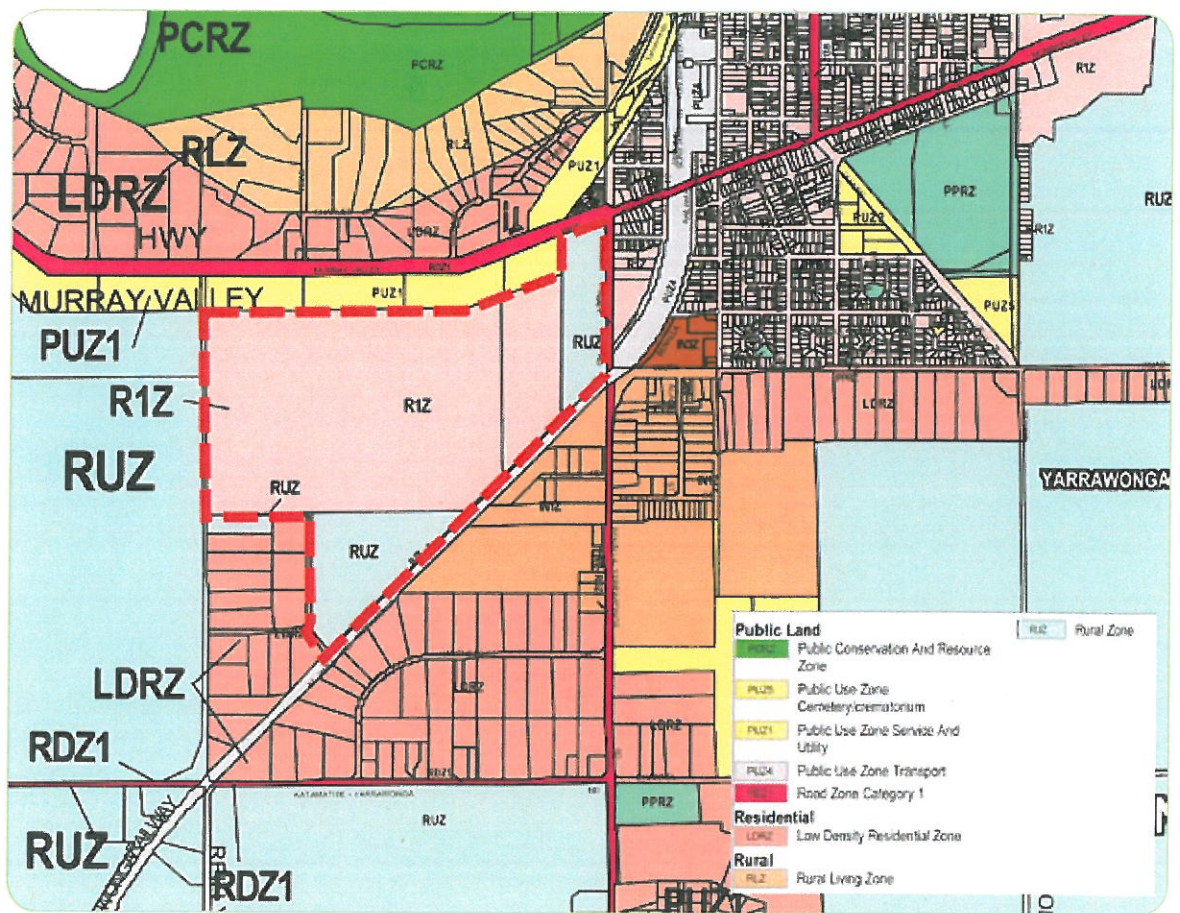


Figure 3.2 - Zones, Moira Planning Scheme

Approximately half the Study Area is included within the Residential 1 Zone (R1Z). The purposes of the R1Z are:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To provide for residential development at a range of densities with a variety of dwellings to meet the housing needs of all households.
- To encourage residential development that respects the neighbourhood character.
- In appropriate locations, to allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs.

A planning permit is required to subdivide land. The subdivision must be in accordance with Clause 56 of the Moira Planning Scheme.

Part of the Study Area is included within the Rural Zone (RUZ). The purposes of the RUZ are:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To provide for the sustainable use of land for Extensive animal husbandry (including dairying and grazing) and Crop raising (including Horticulture and Timber production).
- To encourage:
 - An integrated approach to land management.
 - Protection and creation of an effective rural infrastructure and land resource.
 - Improvement of existing agricultural techniques.
 - Protection and enhancement of the biodiversity of the area.
 - Value adding to agricultural products at source.

- Promotion of economic development compatible with rural activities.
- Development of new sustainable rural enterprises.
- To ensure that subdivision promotes effective land management practices and infrastructure provision.

Land within the RUZ cannot be subdivided for residential purposes. To this end the Study Area requires rezoning prior to its residential development.

3.3.2 Overlays

The Land Subject to Inundation Overlay (LSIO) applies to areas of land within the Study Area.

The purposes of the LSIO are:

- To implement the State Planning Policy Framework and the Local Planning Policy Framework, including the Municipal Strategic Statement and local planning policies.
- To identify land in a flood storage or flood fringe area affected by the 1 in 100 year flood or any other area determined by the floodplain management authority.

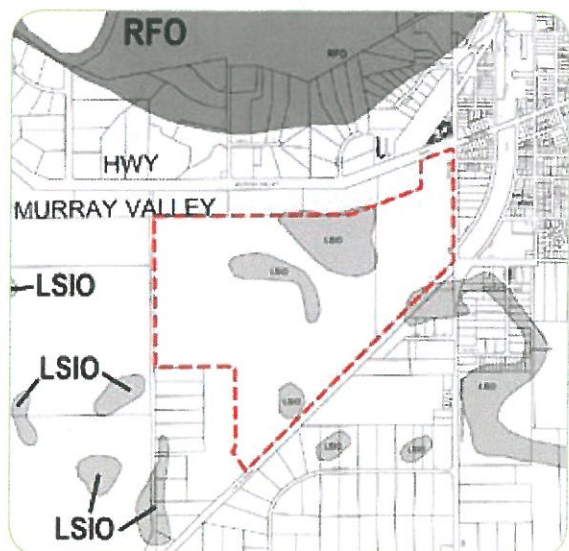


Figure 3.3 - Land Subject to Inundation Overlay, Moira Planning Scheme

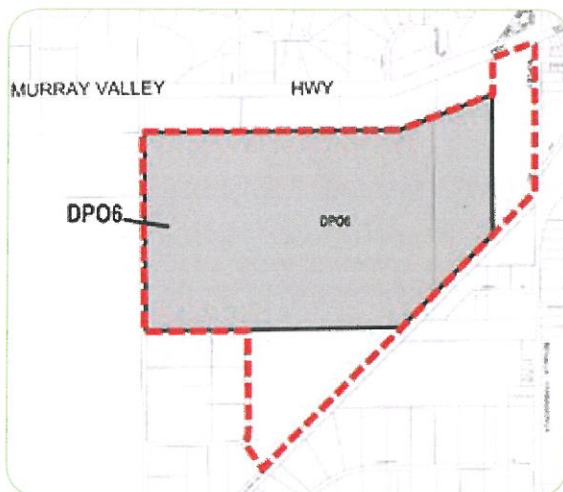


Figure 3.4 - Development Plan Overlay 6, Moira Planning Scheme

- To ensure that development maintains the free passage and temporary storage of floodwaters, minimises flood damage, is compatible with the flood hazard and local drainage conditions and will not cause any significant rise in flood level or flow velocity.
- To reflect any declaration under Division 4 of Part 10 of the Water Act, 1989 where a declaration has been made.
- To protect water quality in accordance with the provisions of relevant State Environment Protection Policies, particularly in accordance with Clauses 33 and 35 of the State Environment Protection Policy (Waters of Victoria).

The Development Plan Overlay 6 (DPO6) applies to land zoned R1Z within the study area (refer to figure 3.4)

The DPO6 specifies that a Development Plan for this area must describe:

Requirements for development plan

A development plan must show or include the following details:

- The proposed development of each part of the land.
- The relationship of the land to the adjoining land.
- The layout of the subdivision and development of the land including roads, lot boundaries and areas of open space.
- Provision of public open space that:
 - has an area no less than 5% of the land to be used for residential, industrial or commercial purposes.
 - Provides appropriate interfaces between residential areas and surrounding areas.
 - Provides for connectivity both internally and externally.
 - Incorporates low-lying areas.
 - Recognises important landscape views and vistas.
 - Is landscaped and planted out with lawn areas, native grass areas and trees and shrubs of local provenance.
 - Ensures that where land adjoins the Murray Valley Highway and where no service or access road exists immediately adjoining the Highway road reserve, it is provided with a landscape buffer treatment a minimum of 10 metres wide.
 - Provision is made for the watering of existing and proposed vegetation.
 - Is based on a landscape design prepared by a suitably qualified person.
- Areas for any recreational uses including a golf course with associated tennis, gymnasium, walking and cycling tracks and internal water features.
- The provision of safe and efficient vehicle and pedestrian access to and from the land.
- Provision for public transport throughout the neighbourhood with appropriately located and designed bus stops.
- How the proposed development addresses any flood or inundation impacts on the land.
- Underground infrastructure provision including sewerage, water, drainage, telecommunications and other utility services.

- The location and connectivity of constructed footpaths along proposed streets.
- The proposed street tree and planting regime with preference given to vegetation of local provenance.
- Any intended contributions to community facilities and services.
- Identify suitable locations for community, commercial and recreational facilities that are required to meet the needs of the general area.
- An environmental assessment of the flora, fauna and habitat significance of the land which includes recommended actions for management, revegetation and restoration of conservation and vegetation protection areas and the links between such areas.
- Retention and integration of individual and stands of mature trees, particularly indigenous trees. An arboricultural survey of all existing trees on the land and their condition, health and integrity including appropriate measures for the long term preservation of the tree(s) having regard to their proposed open space or development context.
- A "Net Gain" assessment of any native vegetation to be removed having regard to Victoria's Native Vegetation Management – A Framework For Action including the location of any off-sets.
- An archaeological survey and heritage assessment which includes recommendations for the protection, restoration and interpretation of significant individual sites and, where appropriate, design measures to sensitively integrate sites into the proposed open space network.
- The use of water sensitive urban design providing for the protection of natural systems, integration of stormwater treatment into the landscape, protection of water quality and reduction of run-off and peak flows.
- The location of any detention tanks, drainage retardation basins or other utility infrastructure required to service the neighbourhood.
- Opportunities for a diverse range of allotment densities and dwelling types. A statement of housing outcomes, population and lot yield targets must be submitted.
- An environmental assessment identifying any environmental hazards or contamination on the land and proposed treatments, if any; or a qualified statement indicating the absence of such hazards or contamination.
- Where land abuts a road in a road zone, new street access to the road is to be minimised and/or managed in line with the requirements of VicRoads.
- Appropriate transitional arrangements are required at the interface of land zoned for Low Density Residential and Residential 1 being either a graduated decrease in lot size from the larger lots to the smaller lots or the provision of public open space at the interface. Any development plan that is prepared and approved must include:
- Processes for making changes to the development plan, including a public consultation period and a requirement that the responsible authority approve any changes to the development plan.

3.3.3 Amendment C24

Amendment C24 seeks to rezone the rural zoned land fronting Benalla-Yarrowonga Road to Business Zone and include the land in the DPO6. This amendment went to a Panel Hearing and was recommended for approval. Council have adopted the amendment, and it was forwarded to the Minister for approval on 14 August 2006.

3.4 Development Plan

The Development Plan is included as Attachment 3.2. It provides the development, road and open space networks for the Study Area and has been developed cognisant of the issues outlined at Section 3.2. This section identifies the key influences on the development of the plan and then discusses its key features.

3.4.1 Key influences

The following issues have significantly influenced the preparation of the Development Plan:

- The need to provide appropriate interfaces to existing development and infrastructure.
- The need to provide appropriate water quality treatment.
- The need to provide a diversity of lot and dwelling opportunities.

Appropriate development interfaces

Section 3.2 outlines the site's interfaces, including:

- Concrete batching plant and associated buffer.
- Potential business land within Study Area.
- Railway line.
- Low density development in Pine View Drive and rural land west of Reillys Road.
- Main Irrigation Channel.

Each of these impacts upon the adjacent land uses proposed in the Development Plan, as outlined below.

The concrete batching plant operates legally on Residential 1 Zone land. In accordance with the requirements of Clause 52.10 of the Moira Planning Scheme, a 300m buffer should be provided between the batching plant buildings and sensitive uses. Sensitive uses include residential development,

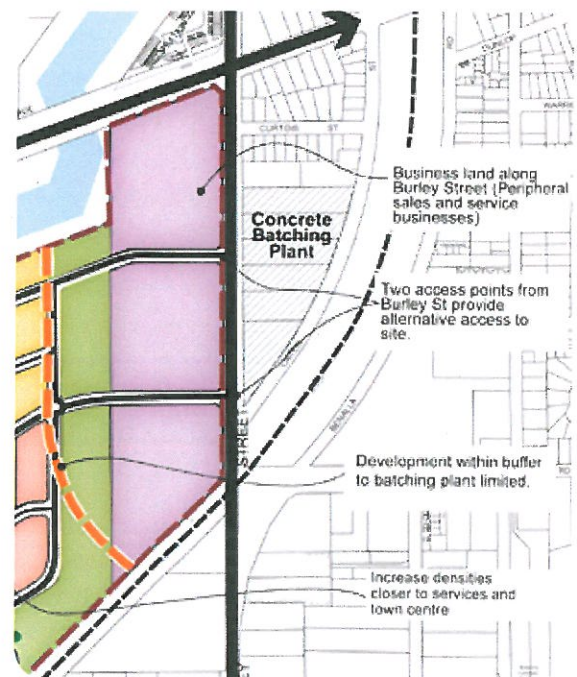


Figure 3.5 - Business Activity

child care, schools, hospitals etc. Residential development exists within the buffer area to the north of the batching plant, though this should not be contemplated for land within the Study Area. Appropriate interfaces include business/commercial/light industrial development and open space areas, though these must be designed cognisant of the majority of the Study Area proposed to be residential.

With regards to the potential strip of business land along Benalla – Yarrowonga Road, this has been nominated by Council as being suitable for peripheral sales and service businesses, and would appear to meet the objective of achieving an appropriate interface as outlined above. The types of businesses permitted in this area will ultimately be determined by its land zoning, which is proposed to be Business 3 Zone. Given its proximity to proposed residential development, the types of businesses allowed need to be carefully considered.

The apparently low use of the railway line means a buffer or the like to sensitive land uses is not considered necessary. An open interface to the railway line should be encouraged to provide an 'address' and passive surveillance.

The low density development in Pine View Drive provides lots of approximately 2 hectares in area. These lots and the rural land west of Reillys Road have different expectations to residents of 'standard' residential lots in terms of the types of uses that can be carried out and the infrastructure to be provided. To manage any off site impacts from existing activities it is therefore important to provide an appropriate interface. This is particularly the case for rural land where many rural practices do have off site impacts that are highly likely to impact upon more standard residential development.

An appropriate interface can be easily provided by managing adjacent lot sizes. The lot sizes can be dictated and provide a transition area to more standard residential lot sizes where interface issues are more manageable.

It is important to recognise, however, that a lower density development does not compromise the potential for the higher density development of this land. This can be managed by appropriate lot sizes and regular shapes, and the placement of building envelopes. Whilst not envisaged at this time, the further western development of Yarrawonga may be possible and thus consideration should be given to ensuring any low density development interface along Reillys Road is appropriately planned to enable its further development.

Typically Goulburn Murray Water requires development be setback approximately 30m from the top of the bank of its irrigation channels. However, in this instance the reserve/lot is of sufficient width to accommodate this 'buffer' and thus additional land within this Study Area is not required.

Given the significance, size and appearance of this particular channel it is considered best to 'back fence' it. The channel will not be removed in the foreseeable future and the size of its banks makes it difficult to work into a design. If it is ultimately removed or piped the width of its reservation would make 'back to back' housing possible.

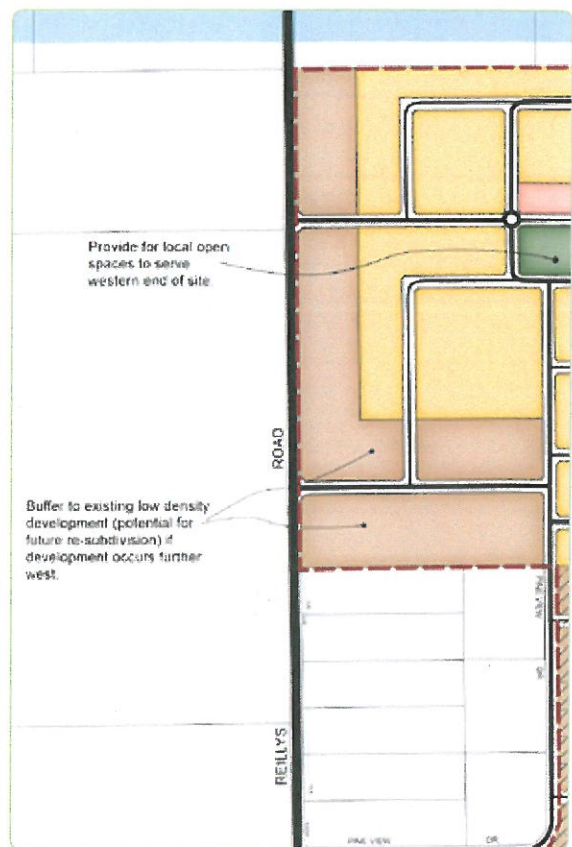


Figure 3.6 - Low Density Residential

Water quality

Drainage issues exist across the study area and a minimum of 8 - 10% of the study area is required to manage these issues, and probably more if deep retarding basins are to be avoided or at least softened. The 10% includes both the 'water' component plus surrounding land. The 'water' component is not useable open space, and thus cannot be included in the open space contribution. Depending on the surrounding land's usability as result of detailed design, it may be included in the open space contribution.

As a general principle the design outcomes achieved by older retarding basins (i.e. a hole in the ground where it is necessary to fence the entire area and consequently there is no integration with surrounds) are to be avoided.

Water quality controls are now such that deep water bodies will not deliver adequate quality of discharge to other waterbodies. Where practical, open space has been combined with the drainage retardation and water quality control measures, to ensure that an integrated approach to water retardation and quality treatment is undertaken, and that the area surrounding these functions is usable open space.

Virtually all drainage and open space areas have street frontage on all sides. This is to ensure that passive surveillance is always present, and will also generate amenity benefits for land that is proximate to the open space.

Diversity of development options

With an approximate area of 140ha, the Study Area has the ability to provide near to 900 new lots, depending on the ultimate density of development. It is important that a diversity of development options are provided within the Study Area to ensure lot choice and options are available. This is a key State Planning Policy objective.

As is the trend across Australia, though particularly in regional areas, our population is ageing. The number of dwellings required to accommodate this

ageing population is in excess of the population growth. This is primarily attributed to the strong growth in single people households and the general decline in household size. These factors support the argument to generally reduce lot sizes, or increase development densities. In addition, this strategy in theory should capitalise on existing infrastructure and limit the growth of our urban footprints. State Planning Policy strongly encourages a better utilisation of our infrastructure and is a strong advocate for increased development densities across the State.

What an increased development density means is particular to a town, suburb or region. Certainly the development densities being targeted in Melbourne would not be relevant to or reflective of Yarrawonga's community desires. As per most traditional subdivision development, the existing average lot size in Yarrawonga is likely to be 800 to 1200sqm. Newer developments are likely to be less than this, and the newer unit developments are likely to have an average lot size of around 400 to 500sqm.

The Development Plan does not provide a lot layout though will specify areas of development density – 'standard', 'low' and 'medium' - and average lot sizes. The lot layout detail is to be provided at the subdivision application level. A key purpose of the Development Plan is, however, to provide a flexible movement and open space network that will provide for a range of lot layouts and general development densities. A grid based network is most efficient in this regard, and also encourages a lot layout which promotes a high level of solar efficiency.

Densities of development areas are generally dictated by existing interfaces and the location of infrastructure and services.

A lower density interface in the Study Area should be provided adjacent to existing low density development on Pine View Drive. This would also provide a suitable transition to the rural land west of Reillys Road.

The location of medium density development should be dictated by the location of open space and good

access to potential public transport routes. Medium density lots should achieve an average size of 500sqm. Being located adjacent to public parkland provides these lots with added amenity and space that the lot is otherwise not able to provide. Importantly, these lots should 'front onto' the space to provide the added benefit of passive surveillance. Being located

adjacent to main roads and potential public transport routes increases the potential usage of such services and provides the much needed net effect required to make these services viable.

'Standard' density lots should achieve an average lot size of 800sqm, though their design and end density will depend upon particular site constraints.

3.4.2 Development Plan features

This section provides detail of the key elements of the Development Plan.

Development Analysis

YARRAWONGA WEST DEVELOPMENT ANALYSIS			
			% G. D. Area
SITE AREA	141.1	Ha	
Encumbered Land	3.3	Ha	
Concrete Batching Plant Buffer	3.3	Ha	
Gross Developable Area	137.8	Ha	
Proposed Business 3 Zoned land	10.8	Ha	7.8%
Public Open Space	16.4	Ha	11.9%
Local Parks & Linear Links	3.5	Ha	2.5%
Open Space for Drainage & Water Treatment	12.9	Ha	9.3%
Net Developable Area	110.7	Ha	
Roads	23.0	Ha	16.7%
inc. Laneways and widenings for tree protection			
Net Residential Area	87.7	Ha	63.6%
Higher Density Area	5.9	Ha	
Standard Density Area	50.8	Ha	
Low Density Area (2000m ² - 4000m ²)	18.8	Ha	
Low Density Zone Area (4000m ² min. lot size)	12.2	Ha	
Potential Development Yields			
Higher Density Area (average lot size 500 sqm)	119	lots	13%
Standard Density Area (average lot size 800 sqm)	635	lots	70%
Low Density Area (average lot size 1500 sqm)	125	lots	14%
Low Density Zone Area (average lot size 4000 sqm)	31	lots	3%
Estimated Total Yield	909	lots	100%

Open Space

The Development Analysis identifies approximately 16.4 ha of land for open space in three key spaces:

1. Reserve adjacent to the railway line incorporating major drainage and water quality treatment measures. This reserve extends north to behind the business centre and incorporates 3.3 ha of area affected by the concrete batching plant buffer.
2. Central north-south linear reserve.
3. Local open space in the western half of the Study Area.

It is noted that most of this open space is encumbered.

The reserve adjacent to the railway line has an approximate area of 13ha and incorporates the drainage and water quality treatment measures for the whole Study Area, and identified scattered vegetation. Land to be developed for drainage and water quality treatment will be considered encumbered and will not be attributed to the 5% open space contribution. Applications for subdivision will need to consider what land is encumbered and unencumbered and thus what can be attributed towards the open space contribution.

In addition to providing the Study Area's drainage functions, the reserve also provides a buffer to the adjacent industrial developments. Whilst not requiring specific buffers, the provision of parkland appropriately separates the two land uses and minimises the potential for any conflict.

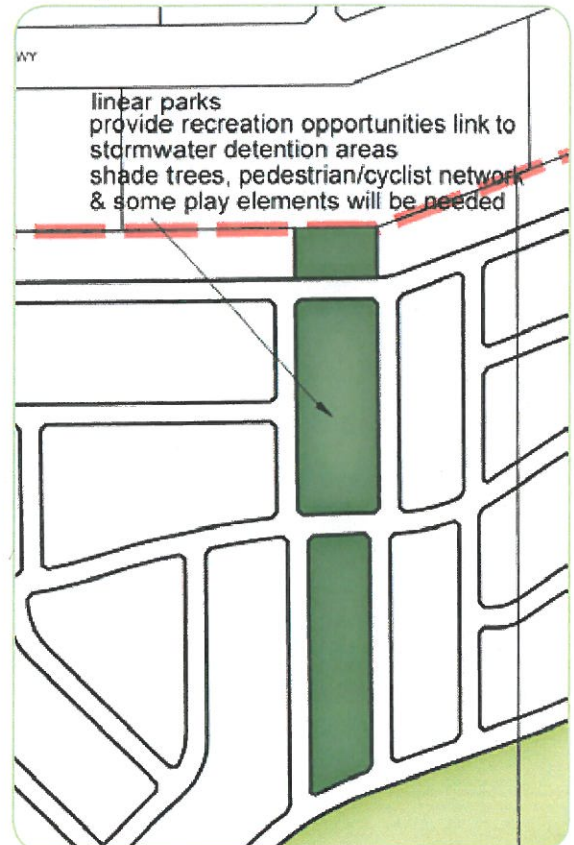
All of this reserve is to be directly fronted by road and lots. This is to ensure the reserve is clean, used, safe and pleasant and does not merely become a 'hole in the ground'. Aside from the drainage function, the remainder of the reserve should be developed for informal passive recreation or parkland.

The north-south section of this reserve provides a buffer between the proposed business centre area and residential land uses. This space should be addressed by both residential and business/commercial land uses and will provide a pleasant park

environment for all. An outcome such as the rear of the businesses backing onto the parkland is not to be supported. This reserve also retains all land within the buffer for the batching plant, meaning that any land uses within this buffer are not sensitive in nature. Should the Batching Plant be removed, appropriate redevelopment of this buffer area for residential uses could be supported. As such, this area is not included in the open space calculations.

The central north-south reserve links residents in the northern section of the Study Area to the main southern parkland and provides an appropriate outlook and interface with the adjacent proposed medium density area.

A smaller local park is provided at the western end of the Study Area.



Business Centre

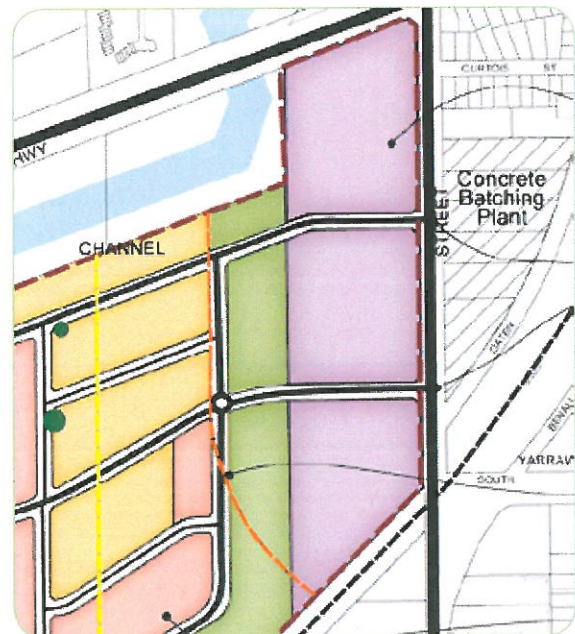
Approximately 10.8ha of the Study Area is proposed to be developed for business/commercial purposes. This area is located along Benalla – Yarrowonga Road to take advantage of existing commercial and industrial uses and provide an appropriate land use transition between the batching plant and proposed residential developments to the west.

Amendment C24 proposes to zone this land Business 3 zone. It is envisaged that peripheral sales, restricted retail sales, service businesses etc will be encouraged. Certainly shopping facilities such as a supermarket or general retail will not be supported in this location. These services will continue to be provided by the Yarrowonga Town Centre.

The built form of the business centre is important from both Benalla – Yarrowonga Road and from the west. Ideally 'addresses' will be provided to both interfaces and a traditional back of business appearance to the public open space will not be supported. Both addresses should be active and contain interesting built form. It may be beneficial for an urban design framework, Design and Development Overlay or the like to be specifically prepared for this precinct to ensure best urban design and built form outcomes are achieved.

Road network

Due to boundary restrictions, external access is only possible to Benalla – Yarrowonga Road and Reillys Road. Clearly with Benalla – Yarrowonga Road providing direct access to the Yarrowonga Town Centre traffic movements in this direction will be most prevalent. These will be facilitated via two new connections to be constructed through the business centre area. Whilst both will provide connector road type access, the southerly connection forms an important link through the Study Area and visual access to most of the proposed public open space. As these roads intersect with a VicRoads main road, their intersection design will need to be to VicRoads requirements and standards.



Two new connections are also proposed to Reillys Road. Pine View Drive is proposed to be extended to provide alternative additional access to Reillys Road and also to integrate the two communities. Providing road access will encourage use of the proposed open spaces, services and facilities by Pine View Drive residents.

The local road network generally follows the grid structure of the proposed key roads, though the railway line reserve also influences local road alignments. North-south road alignments are utilised where possible to provide access to and views of this open space.

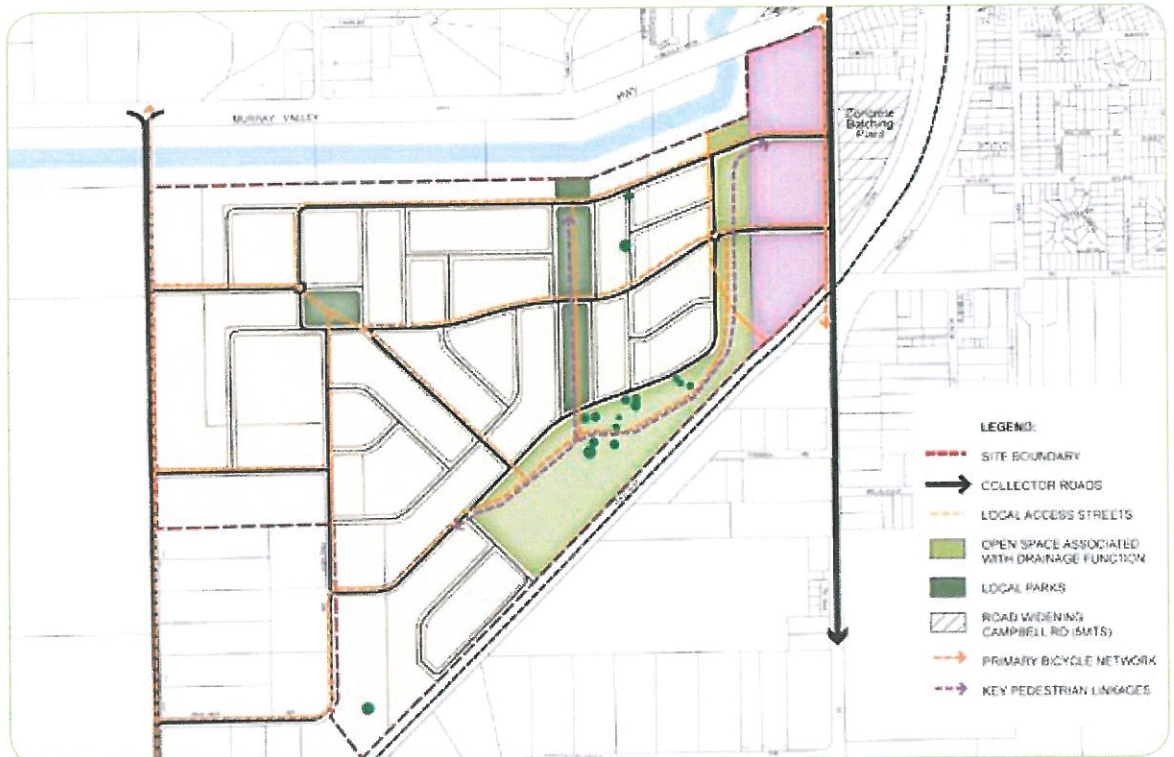


Figure 3.7 - Pedestrian/Bicycle Network Plan



Residential development

Over 85ha of residential land will be provided by this Study Area. Previous discussion in Section 3.4.1 refers to the need to provide a diversity of development options. This is achieved in this Study Area by identifying areas of 'standard', 'medium' and 'low' densities. The vast majority is 'standard' and it is anticipated these areas will achieve a lot size of between 700sqm and 1000sqm, and an average of 800sqm. The road network provides the flexibility, however, for alternative averages to be achieved if so desired.

Pockets of medium density development are identified throughout the Study Area. These are all either located adjacent to open space or the business centre to provide either added lot amenity or critical mass. It is anticipated these areas will achieve an average lot size of 500sqm, though flexibility in the road network provides for alternative averages to be achieved if so desired. The pocket of medium density development between the business centre and north-south linear reserve has been specifically located to increase densities in an area with good access to services and facilities.

A low density interface is proposed along the western Study Area boundary reflecting this localities adjacent development and rural land uses. As previously discussed it is important these areas are developed cognisant of the opportunity for further future subdivision. Lot layouts should reflect these opportunities by ensuring lots are of regular shape and can be subdivided further into 'standard' residential lots. Building envelopes on these lots should be considered to ensure their future subdivision potential is not compromised.

Vegetation

Areas of the scattered vegetation identified in the site analysis plan should be retained within the railway line reserve. Other opportunities exist for suitable vegetation to be retained within road reserves and possibly lots.



3.5 Development Contributions

It is important that the cost of providing open space and key infrastructure items is equitably distributed. Ideally these matters would be considered as part of a Development Contributions Plan (DCP), though a DP can provide the same level of guidance without the statutory requirements of the DCP.

3.5.1 Open Space

Approximately 16.4ha of public open space is to be provided across the Study Area. Of this, 3.5ha is to be provided as local parks, and thus is considered unencumbered, and 12.9ha is to be provided for drainage and water quality treatment purposes, and thus is considered encumbered. Note that the buffer to the batching plant is not included in the open space calculations. The public open space is distributed as follows:

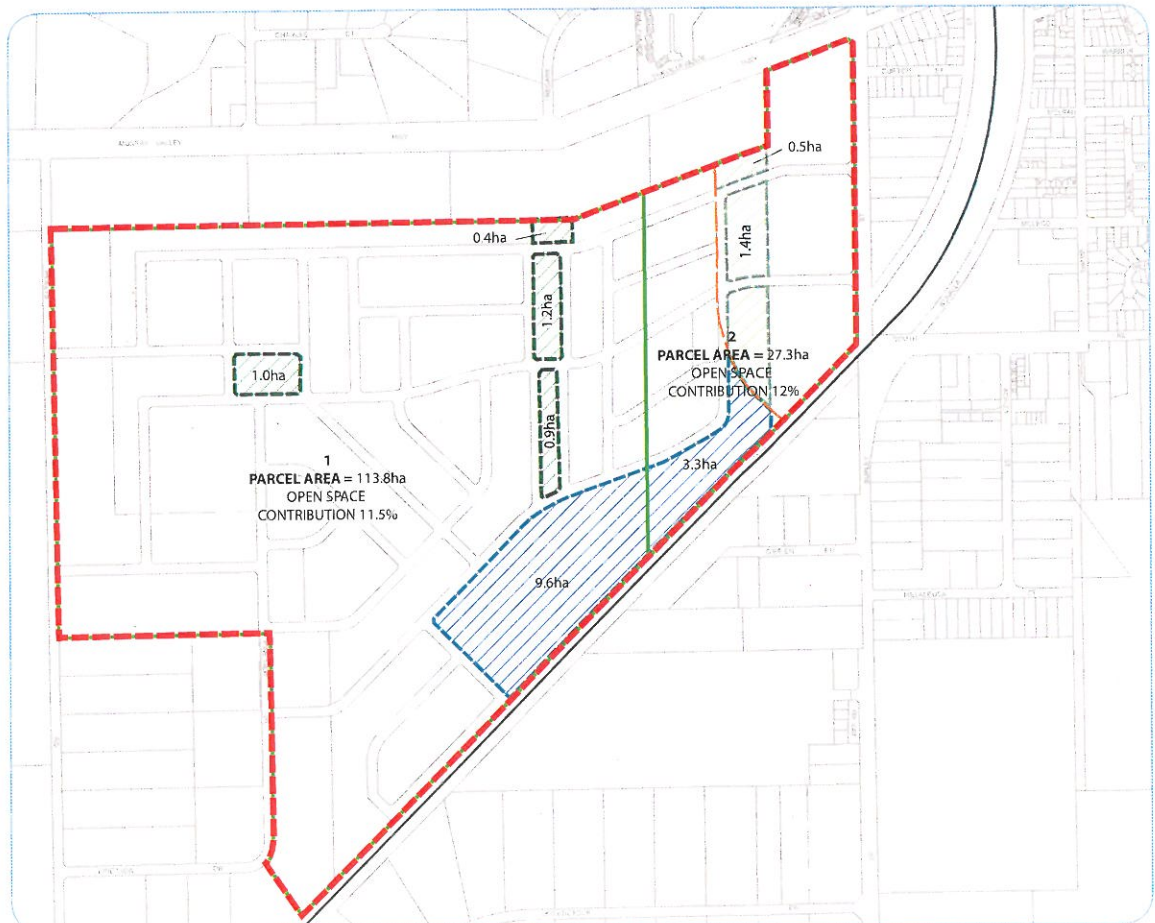


figure 3.8 - POS Distribution

The following table provides a more detailed breakdown of open space in the Study Area:

Land Parcel No.	Parcel Area (ha)	Unencumbered POS	Encumbered POS	Total land to be provided (ha)
1	113.8	3.50	9.60	13.10
2	27.3	0.00	3.30	3.30
	141.1	3.50	12.90	16.40

Table 3.1 - POS Distribution

The location of unencumbered open space has been determined via a thorough design process and meets the requirements of the Moira Planning Scheme (including ResCode). It should generally be provided in accordance with the size and location shown in the DP.

The encumbered open space relates to land primarily required for drainage and water quality treatment purposes. As this is its primary use, and will be developed as such, it is not considered to be useable open space and thus does not count towards a public open space contribution. The figures provided in the table above for the encumbered public open space are indicative only. They may increase or decrease

depending upon the specific drainage strategy proposed. Clearly if the land area required for drainage and water quality treatment purposes decreases then the developable area of the site increases.

The Subdivision Act 1988 requires a 5% public open space contribution when the land is subdivided. The table below notes that both land parcels provide less than this contribution or no unencumbered land to be credited towards their open space contribution.

All landholdings should provide 5% public open space, either via a land or cash in lieu contribution. This table outlines the public open space requirements for each landholding.

Land Parcel No.	Parcel Area (ha)	Unencumbered POS (ha)	% of POS to be provided	POS requirement
1	113.8	3.50	3.10%	3.5ha (3.1%) in land, 1.9% cash in lieu
2	27.3	0.00	0.00%	5% cash in lieu
	141.1	5.40	2.50%	

Table 3.2 - POS Contribution

The cash in lieu contribution should be in accordance with the requirements of the Subdivision Act and Moira Planning Scheme though may be put towards the development/improvement of other spaces within Yarrowonga West that are likely to be used by the new residents of the Study Area.

3.5.3 Utility Infrastructure

Funding of Water and Sewerage "Shared Distribution Assets" is to accord with the statutory guidelines of the Essential Services Commission, Victoria.

Developer contributions for the shared drainage assets including shared underground drainage pipes, land compensation, retardation basins, pumps, rising mains, wetlands and outfall infrastructure is yet to be determined.