


## **ELLAVALE EAST DEVELOPMENT PLAN**

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**Development Plan Report for Ellavale East, Ellavale Drive,  
Traralgon East**

Revision F June 2019

## DOCUMENT CONTROL DATA

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## 1 INTRODUCTION

This Development Plan, known as the Ellavale East Development Plan (EEDP), applies to 33ha of land contained within two parcels of land known as Lots A1 and B1 on Plan of Subdivision 644123R at Ellavale Drive, Traralgon East, shown in Figure 1. Lot A1 comprises a parcel of land which is 24.86ha and Lot B1 a parcel which is 8.14ha.

The Development Plan has been prepared on behalf of Englobo Properties Pty Ltd who have a registered caveat over the property title.

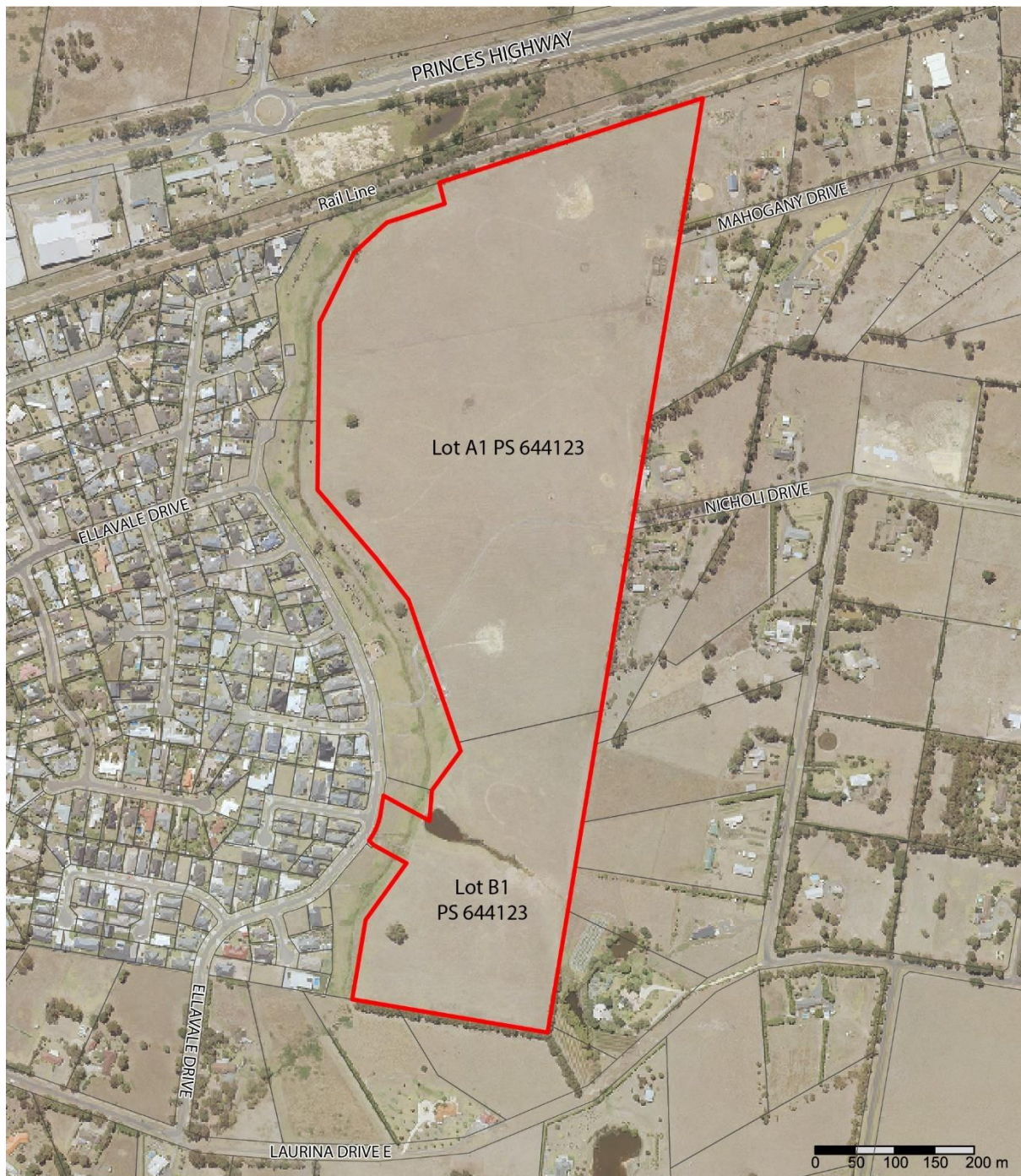


Figure 1. Ellavale East Development Plan Area

The Development Plan has been prepared in accordance with the relevant provisions of the Latrobe Planning Scheme including Schedule 5 of the Development Plan Overlay (DPO5) and is informed by the site's key features and the characteristics of the surrounding environment. The Development Plan provides the guidance to create a new residential area that will feature conventional residential sized lots of varying sizes, a safe and permeable internal road network with efficient access to the established residential area to the west and future access points to the south and east, onsite stormwater detention and linear reserves.

The Development Plan is comprised of the following components:

- This report, which provides the project background, site context and analysis, planning policy context, and design response detailing the key components of the plan and its implementation. This includes the following technical background reports forming appendices:
  - Native Vegetation Assessment Report (Indigenous Design, 2018)
  - Ecological Assessment (Indigenous Design Land Management, 2011)
  - Stormwater Management Strategy (Beveridge Williams, 2018)
  - Traffic and Transport Assessment (Beveridge Williams, 2018)
  - Cultural Heritage Letter of Advice (Ecology & Heritage Partners, 2017)
  - Servicing Report (Beveridge Williams, 2017)
- The plan, which visually depicts how the land should be used and developed for residential purposes, including an indicative road network and subdivision layout, housing density, environment and open space provision, primary infrastructure and stormwater management.

In accordance with the DPO5 future planning applications to subdivide or develop the land must be generally in accordance with this Development Plan.

## 2 BACKGROUND

### 2.1 Planning Context

The Development Plan has been prepared in accordance with the provisions of the Latrobe Planning Scheme (the planning scheme). This chapter provides an overview of the key planning provisions relevant to the site and the purpose of the Development Plan in guiding the overall development of the site. Subsequent planning permit applications will be subject to further assessment against other provisions of the scheme which are more relevant to the detailed permit application stage.

#### Site History

The site is currently used for agricultural purposes associated with its previous zoning of Farming Zone. It was identified for future residential development on the previous Traralgon Structure Plan which was prepared in 2007 and introduced into the planning scheme in 2010 (Amendment C62). The structure plan implemented the Latrobe Structure Plans Review which found that there was strong support for conventional residential development on the subject land due to short-term supply issues, development constraints within other areas of the township and the ability to integrate future development with the conventional residential land located immediately west of the site.

The site was subsequently rezoned from Farming Zone to Residential 1 Zone (now General Residential Zone) by Amendment C47 in March 2011. The amendment also applied the Development Plan Overlay – Schedule 5 (DPO5) to the site which requires a development plan to be prepared before any subdivision or development of the land.

#### Traralgon Growth Areas Review and Current Structure Plan

The Traralgon Growth Areas Review (TGAR) was adopted by Council in 2014 to provide a long-term growth strategy for Traralgon and surrounding areas. TGAR identified the site as a ‘first stage greenfield’ residential opportunity and noted the importance of maximising the density of development in new greenfield residential developments in a manner that is responsive to the context of the site and provides for housing diversity across the broader area.

TGAR also expanded the ultimate urban growth boundary of Traralgon to include the current Rural Living Zone land to the east of the site, nominating it as an intensification area for longer-term residential growth.

The current Traralgon Structure Plan was introduced into the planning scheme by Amendment C87 in August 2017, shown in Figure 2. The structure plan implements the key directions of TGAR and, together with the policy at Clause 21.09-4, provides the key strategic direction relevant to the site.

The structure plan identifies the site as an existing residential opportunity, reflecting its residential zoning, and as ‘Area 4’ where short term residential development is encouraged. The current Rural Living Zone land to the east of the site is identified as future residential subject to the rezoning of the land giving regard to the coal mine buffer to the south.

The site also adjoins a larger growth area to its south (Area 5), which contains both existing and future residential land. The Development Plan Overlay – Schedule 6 (DPO6) applies to the existing residential land and a development plan has not yet been prepared. Latrobe City Council is currently completing background reports to inform the preparation of a Precinct Structure Plan (PSP) for the whole of Area 5 known as the South East Traralgon PSP.



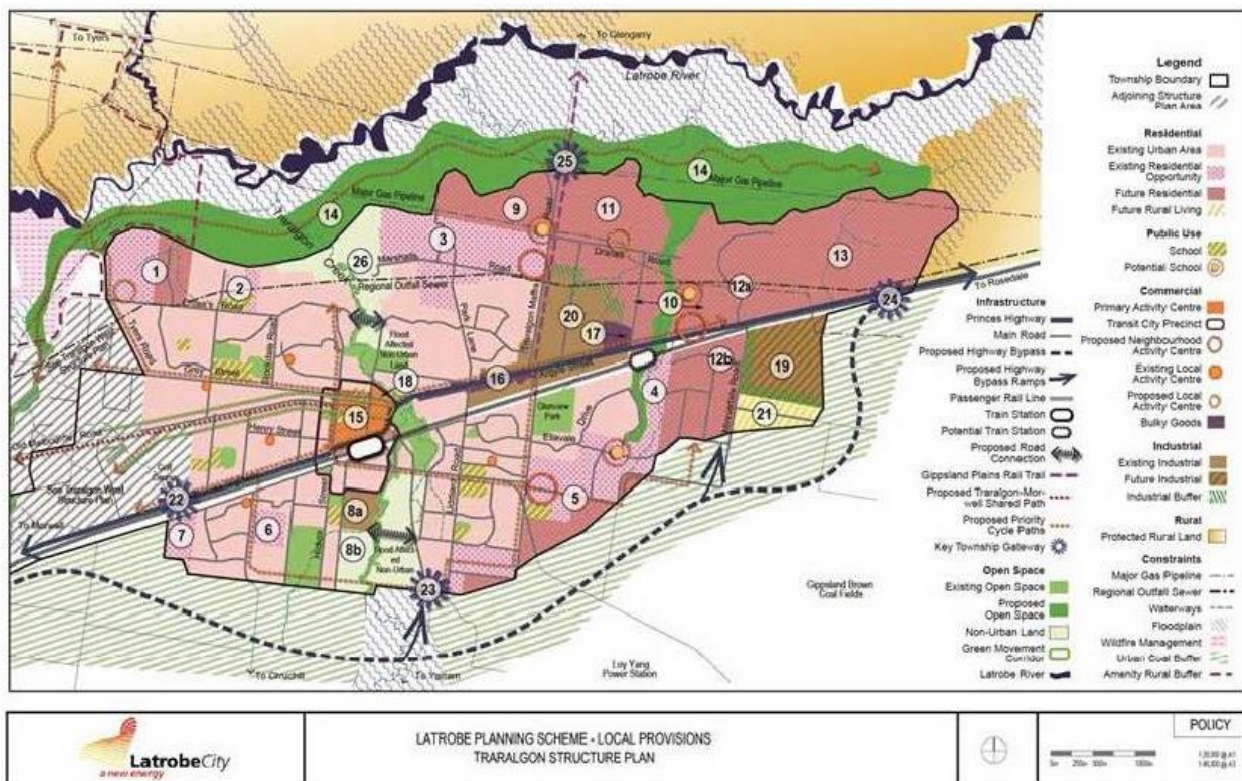


Figure 2: Traralgon Structure Plan  
Source: Extracted from Clause 21.09 of the planning scheme

### General Residential Zone

The site is located within the General Residential Zone – Schedule 1 (GRZ1). The purpose of the General Residential Zone is to encourage development that provides a diversity of housing types and respects the neighbourhood character of the area.

Under the GRZ1 a permit is required to subdivide land and/or construct two or more dwellings on a lot. A permit is not required to construct a dwelling on a lot larger than 300sqm.

The EEDP has been prepared with consideration of the abutting land uses and informed by relevant connections with the existing and future development of landholdings to the east, west and south of the subject site. Additionally, acoustic measures will be considered at the planning permit stage in relation to the Gippsland Railway line, which abuts the site along the northern boundary.

Amendment C105 proposes to include the site in a new General Residential Zone – Schedule 3 (GRZ3) applying to new residential estates. The GRZ3 proposes to introduce some variations to ResCode standards and the following neighbourhood character objectives:

- To establish and reinforce a spacious regional suburban character of new neighbourhoods by requiring adequate front and side setbacks of buildings and encouraging a garden streetscape with canopy trees.
- To encourage the openness of streetscapes and rhythm of building spacing.
- To encourage buildings to be offset from one side boundary.
- To encourage a lack of front fencing and generous front setbacks to allow for landscaping.



- To encourage smaller and diverse housing types, including units and townhouses, to within 200 metres of existing and planned neighbourhood and local activity centres, primary public transport routes and public open space areas.

The Development Plan will allow subdivision and development in accordance with these objectives and the specified ResCode standards.

#### Development Plan Overlay – Schedule 5

The site is affected by the Development Plan Overlay – Schedule 5 (DPO5). A permit granted must be consistent with an approved development plan.

The EEDP has been prepared in accordance with the requirements of the DPO5 and Clause 56.

## 2.2 Site analysis

The site comprises two existing allotments, described as Lots A1 and B1 on Plan of Subdivision 644123. A copy of the certificates of title are contained in **Appendix A**.

The subject land is located on the eastern edge of Traralgon's existing urban area, adjacent to the established 'Ellavale Estate' residential subdivision. The land is situated immediately south of the Gippsland Railway line and east of Ellavale Drive, see **Figure 3**.

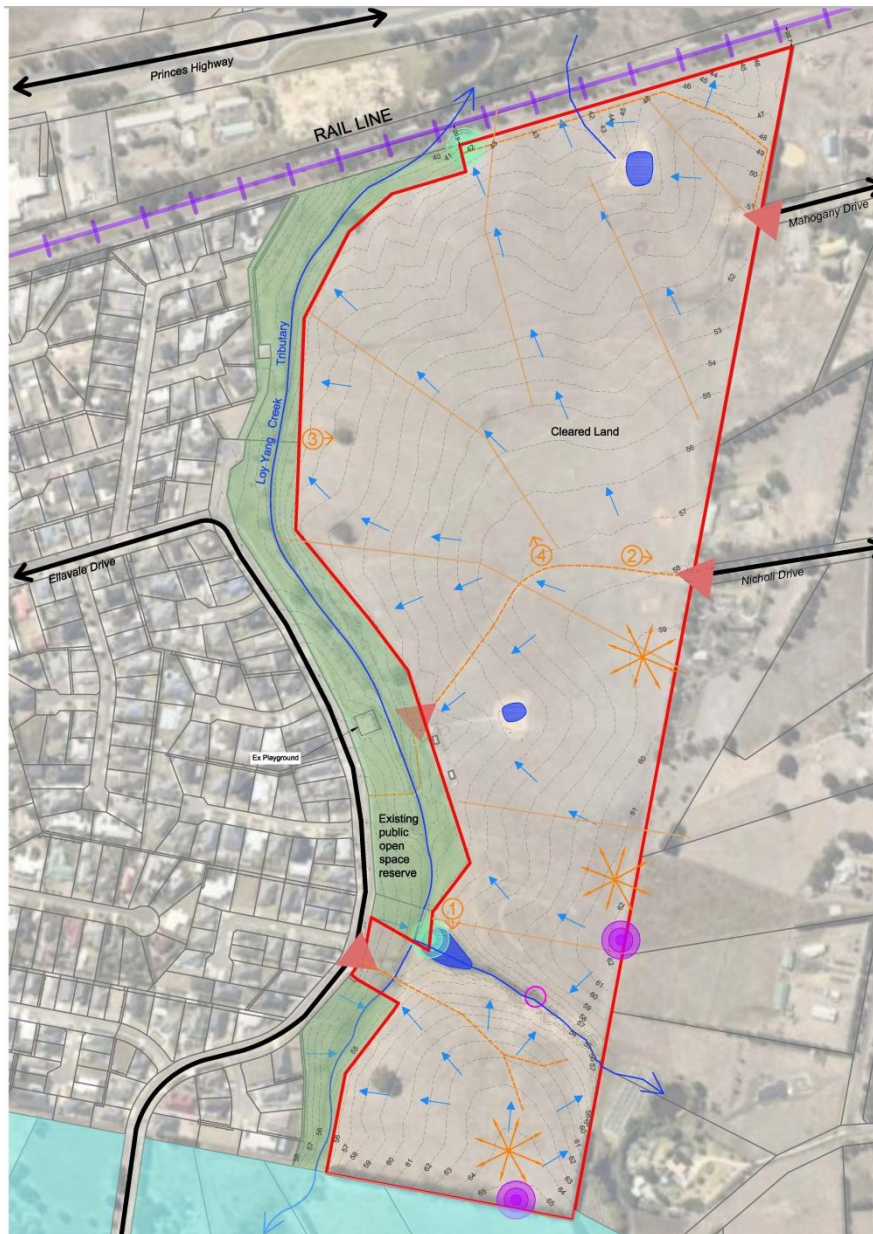


Figure 3: Subject site.

Source: Site Analysis Plan-Appendix C. Not to Scale

The site is irregular in shape, with a total area of approximately 33 hectares. The western boundary of the site abuts an existing Council reserve for drainage and recreation purposes comprising a gully and watercourse (a tributary of the Loy Yang Creek), scattered remnant Forest Red Gum trees, and playground equipment. Along its eastern boundary the site abuts properties in the Rural Living Zone – Schedule 3 (RLZ3) and the ends of Mahogany Drive and Nicholi Drive. To the north, the site abuts the Gippsland Railway Line for a distance of approximately 340 metres. The land to the south

contains large residential properties formally zoned Rural Living Zone properties which are now within the General Residential Zone.

The subject land is predominantly vacant, apart from two portable buildings that were used as site offices associated with the development of the now constructed Ellavale Estate to the west. These buildings and an ancillary gravel vehicle parking area are located adjacent to the western boundary of the site and are accessed from Ellavale Drive via a gravel access track. Cattle yards are located adjacent to the eastern boundary, near Mahogany Drive.

The balance of the site is predominantly cleared and covered in pasture grass, having been extensively grazed by sheep and cattle for many years. A gully carrying stormwater runoff from the adjacent rural residential estate extends in a north-westerly direction through the southern portion of the site. A number of trees and shrubs are situated on the banks of this gully. Several large remnant trees are located within the property and shelterbelt plantations extend along part of the eastern and northern boundaries.

Three farm dams are situated on the land; one near the northern boundary, one centrally located and the third dam within the southern quarter of the site. The northern and central dams will be filled, where required, and form part of the future allotments. The southern dam will be partially filled and form part of the future waterway.

The topography of the land is gently undulating, with a fall towards the gully and the site's western boundary.

Vehicular access to the site is obtained from Ellavale Drive via two gravel tracks. One of these tracks extends through the centre of the site and intersects with Nicholi Drive.

There are no known areas of the site affected by contamination or fill.

Views of the distant mountain ranges to the north-east of Traralgon can be obtained from various vantage points across the site. The southern portion of the site provides views of the adjacent rural residential estate to the south and south-west.

The Site Context and Site Analysis Plans are contained in **Appendices B and C**.

### Current Agreements on Title

Both titles are encumbered by two Section 173 Agreements (AC761174E, registered 26 March 2004 and AC914561P registered 4 October 2005) which stipulate that:

- Residential allotments abutting Council reserves must be provided with boundary fencing of a required standard at the landowner's expense;
- Future subdivision of the land must be in accordance with the approved Outline Development Plan (note: at the time this Outline Development Plan was prepared, it did not incorporate the subject site).

Both Agreements relate to specific lots created with the previous subdivision of the 'Ellavale Estate' to the west of the creek, which excised the subject land as a separate balance lot. The matters do not pertain to future lots on the current titles under consideration which relate to development of the eastern side of the creek, and therefore it is expected that these agreements will be removed from the title as they are no longer relevant. New agreements relating to fencing on reserve boundaries within the EEDP area may be required at the planning permit stage.

## 2.3 Surrounding area

The site is located approximately four kilometres east of Traralgon's central activity district, on the eastern fringe of the town's urban area.

To the west of the site is the 'Ellavale Estate', a residential subdivision comprising approximately 400 allotments that is almost fully developed. The estate has a bitumen road network with concrete kerb and channel drainage and footpaths in some streets. The estate is serviced by reticulated electricity, water, sewerage, telecommunications and gas, all of which are located underground. The site abuts large rural living style properties to the south and east designated for future residential development, as outlined in the planning context chapter. The land to the south has already been rezoned to the General Residential Zone and is affected by the Development Plan Overlay – Schedule 6 (DPO6). A development plan has not yet been prepared for that land, however Council in conjunction with the Victorian Planning Authority (VPA) have commenced the pre-work and background reports for the Precinct Structure Plan, that will eventually replace the DPO and it is identified as a next-stage residential growth area.

The land to the east is expected to be a longer-term growth area and currently remains in the Rural Living Zone. The two roads that abut the site on its eastern boundary (Mahogany Drive and Nicholi Drive) are of a typical rural standard; a bitumen seal, table drains and grassed verges. Properties within this rural residential area average approximately 2 hectares in size and are mostly developed with single dwellings and large sheds set well back from the road and surrounded by a small scale agricultural or animal husbandry pursuit.

The Princes Highway is located to the north of the Gippsland railway line, with its nearest access from the site being via McNairn Road to the west and Minniedale Road to the east.

There are no schools in close proximity to the site. However, local school buses service the Ellavale Estate, with a bus route along the existing extent of Ellavale Drive.

A linear recreation reserve with playground equipment is located approximately 600 metres west of the site on Ellavale Drive, between Malibu Place and Jack Farmer Way. Anzac Memorial Park, a reserve comprising barbeque facilities and a rotunda, is also located on Ellavale Drive approximately 1.2 kilometres to the west. A range of larger recreational facilities are located throughout Traralgon's urban area.

Public transport in Traralgon is limited, however V-Line train and bus services between Bairnsdale and Melbourne operate from the Traralgon train station located on the southern perimeter of the central activity district. An inter-town bus service also operates from outside Stockland Plaza in Franklin Street. The closest public bus route is the Traralgon East bus service with the closet stops being located along Ellavale Drive at Clover Court and Woodhall Court.



### 3 THE DEVELOPMENT PLAN

The Development Plan identifies the form and conditions for subdivision and future development of the site, known as the Ellavale East Development Plan. The plan responds to the features of the site and surrounding context as outlined in the Design Response Plan at **Appendix F**.

The overall development plan is shown in Figure 4 and at **Appendix D**. The plan identifies the key features of the EEDP including road network and connections to adjacent estates, pedestrian/cycle network, land use, public open space, drainage reserves and vegetation removal. Further details regarding the various elements of the Development Plan and staging are provided on the suite on plans at Appendices B – H and discussed in later sections of the report.

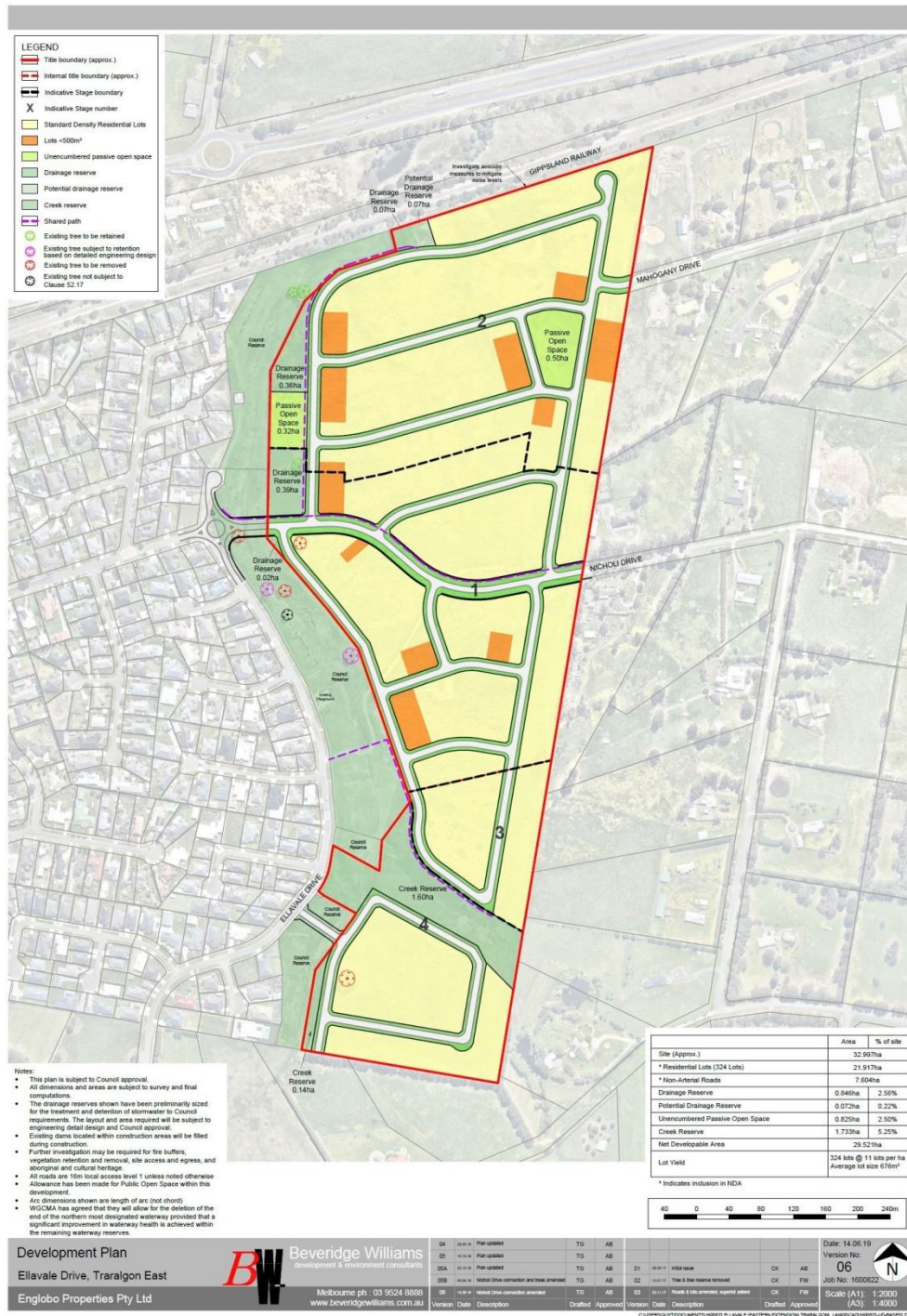


Figure 4: Development Plan  
Source: Appendix D. Not to Scale

### 3.1 Land budget

The VPA's Precinct Structure Planning Guidelines provide the basis for calculating land use within a development precinct. The land budget table at Table 1 sets out the total area of the EEDP precinct, gross developable area, net developable area and land uses.

The VPA uses the following area definitions for the land budget table:

#### Gross Development Area

- *Is the total precinct area excluding encumbered land, arterial roads and other roads with four or more lanes.*

#### Encumbered Land

- *Is land that is constrained for development purposes. Includes easements for power/transmission lines, sewers, gas, waterways/drainage; retarding basins/wetlands; landfill; conservation and heritage areas. This land may be used for a range of activities (e.g. walking trails, sorting fields). It is not provided as a credit against public open space requirements. However, regard is taken to the availability of encumbered land when determining the open space requirement.*

#### Net Developable Area

- *Is land within the precinct available for development. This excludes encumbered land, arterial roads, railway corridors, schools and community facilities and public open space. It includes lots, local roads and connector streets. Net Developable Area may be expressed in terms of hectare units (NDHa).*

	Hectare	% OF SITE
<b>TOTAL DEVELOPMENT PLAN AREA</b>	32.99ha	100%
<b>ENCUMBERED LAND</b>		
Land that is subject to inundation, a drainage overland path or a 60m wide watercourse buffer, or land that contains a registered Aboriginal heritage place requiring permanent protection.	Drainage reserve 0.857ha	2.6%
	Potential drainage reserve 0.072ha	0.22%
	Creek reserve 1.733ha	5.25%
<b>GROSS DEVELOPABLE AREA</b>	30.328	91.78%
<b>OPEN SPACE</b>	0.825ha	2.5%
<b>Non-Arterial Roads</b> (included in net developable)	7.529ha	22.82%

area)		
<i>NET DEVELOPABLE AREA</i>	29.455ha	89.3%
<i>Residential allotments areas</i>	21.981ha	66%
- Standard residential	(324 lots)	

**TABLE 1** Land Budget – Ellavale East Development Plan  
(Areas are approximate)

### 3.2 Lot mix and density

The EEDP provides for approximately 324 residential allotments with a mix of standard and medium density lot sizes, providing an efficient use of the available developable land. This achieves a density of 11 dwellings per net developable hectare which is appropriate to the location and context of the site and is consistent with Council's preferred density for new residential developments. An Indicative Subdivision Plan was prepared and exhibited to support the assessment of the Development Plan and demonstrate that this density can be achieved through an appropriate subdivision layout, but does not form part of the Development Plan itself.

The majority of the site will contain standard residential lots in a range of sizes, with smaller medium density lots located opposite or in close proximity to public open space.

### 3.3 Railway interface

Lots along the northern boundary of the site will have a rear abuttal onto the South Gippsland Railway line. The Development Plan allows for these lots to be longer to provide for a greater dwelling setback from the rear boundary. An acoustic assessment should be undertaken as part of the planning permit application to determine whether additional mitigation measures are required and at what stage of development, such as an acoustic fence along this boundary, to ensure future occupants of the dwellings have no amenity issues with respect to noise levels. Any permit to issue should contain a condition requirement to prepare an acoustic report for approval by the responsible authority and should specify any design requirements. This will inform any design aspects and maintenance requirements relevant to the respective lots and will allow for these matters to be addressed, as required, via restrictions on a plan of subdivision or via a Section 173 Agreement as appropriate.

### 3.4 Open Space

The Development Plan provides for approximately 0.87 hectares of unencumbered passive open space, part of which is located along the western property boundary between two new drainage reserve areas (as an extension of the existing drainage reserve) and partly within a separate reserve in the north east area of the site.

The EEDP responds to the Latrobe City Public Open Space Strategy 2013, Traralgon Recommendation Plan and recommendation 31 which seeks the following:

*Ensure open space in the Traralgon South East growth area contributes to an integrated network of linear trails and local parks. Contributions to be guided by the draft Open Space Policy (Section 10).*

Section 10 of the Open Space Strategy includes guidelines to inform the location of open space in residential areas including:

- *Open space areas and facilities should be provided in locations that maximise accessibility for all users, including people with poor mobility, such as older adults and people with a physical disability, and parents with prams and strollers.*
- *Local open spaces should not be located on major roads, however, there should be good sightlines into an open space area from neighbouring streets, houses, schools or other buildings.*
- *Local parks and playgrounds should have active frontages on at least two dominant sides to provide surveillance, and where possible should avoid bordering rear yards.*
- *Local parks shall generally comprise a minimum area of 0.75 – 1.0 hectare. Exceptions may include small linear link reserves that may be required to provide vital connections between areas.*
- *Designed to protect native remnant vegetation and other significant natural features.*

The existing drainage reserve along the western boundary of the site provides a drainage function as well as recreation benefits as a linear open space, with the majority of the reserve zoned Public Park and Recreation Zone (PPRZ). An existing playground and shared path are located within the reserve on Ellavale Drive. The co-location of the open space reserve adjoining the drainage reserve contributes to the linear open space network envisaged by Council and the recreational amenity that the drainage reserve provides. For this reason it is considered acceptable that the unencumbered area of the open space reserve is 0.32ha and not the minimum 0.75ha generally sought by the strategy.

The open space reserve provided in the north-east part of the site is 0.5ha, which is also below the nominal 0.75ha minimum. The purpose of this reserve is to ensure all new residential lots have close access to open space within a 400m walkable catchment. This reserve will provide a playground and park equipment and is considered to be appropriate in size to fulfil its role in serving the immediately surrounding area.

An Overall Landscape Masterplan can be found in **Appendix O**. A detailed Landscape Masterplan for each stage will be prepared as part of any permit application.

### Public open space contribution

As the EEDP provides for subdivision of over 15 lots, it is defined as a greenfield residential subdivision for the purpose of the public open space contribution. Clause 53.01 requires a public open space contribution of 8% of the net developable area, to be provided in land (unencumbered) or cash.

The 0.87ha of unencumbered public open space provided equates to a 3% land contribution. The remaining 5% must therefore be provided in cash at the planning permit stage. The exact percentage amounts for land and cash equalling 8% of the net developable area should be refined at the planning permit stage in response to any changes to the net developable area and/or unencumbered public open space area provided as a result of detailed design.



### Lots abutting public open space

There is the potential for a small number of lots to directly abut drainage reserves, being the potential drainage reserve on the northern boundary and the east-west creek reserve at the eastern boundary. The Development Plan has been prepared to minimise these occurrences, and the locations where this is likely to occur would involve side fences rather than rear fences.

Consideration of design measures and/or restrictions for lots with a public open space abuttal should be considered and implemented through the planning permit stage. This could include a maximum height and minimum transparency for fencing along the affected boundary (or a specified length of that boundary to balance private open space requirements), consistent fence design and materials, building setbacks and shed locations, and a requirement for habitable room windows providing surveillance towards the open space. Any Design Guidelines can be contained as relevant restrictions within the Plan of Subdivision.

## 3.5 Bushfire Prone Area

The site in its entirety is contained within the Bushfire Prone Area (BPA) mapping which is regulated under the Victorian Building Controls Act. It applies specific bushfire construction standards which are aimed at improving bushfire protection for residential buildings. There are six Bushfire Attack Levels which form part of the Australian Standards (AS3959-2009) and the regulations have recently been amended to ensure the minimum rating of BAL 12.5 can be achieved with land to be utilised for residential purposes. The site is bounded by residential zoned land to the east and south and public purpose recreation land to the west and public land use to the north. In this regard it is considered the site is abutted by managed grassland to the east and south, which is considered to be low threat vegetation. The vegetation to the west is located within a Council reserve, and to the north within a VicTrack Reserve, both comprising areas greater than 2 hectares that would be in a managed state. The public purpose recreation zone, Council reserve, to the west would be partly in a managed state as it comprises open space land and partly comprises a drainage reserve which seeks to protect biodiversity values. The VicTrack land to the north would similarly to the Council reservations be maintained.

The indicative subdivision layout plan incorporates a road along the entire length of the western boundary which provides a further twenty metre offset from the grasslands of this reserve. It is considered all dwellings would meet the requirements of BAL-LOW or BAL-12.5 enabling a building permit to be issued. Noting all homes would have to be built to a standard of BAL 12.5 whilst the site is identified within a Bushfire Prone Area.

The BPA specifically requires an assessment of vegetation located within 100m of the development area to inform the required setbacks which we consider to be BAL-LOW. The definition of bushfire hazard level low areas is defined as *areas where the extent, configuration and/or management of vegetation means that there is low potential for bushfire spread*. See Figure 5.

An appropriate Bushfire Management Plan will be prepared to meet any relevant permit condition associated with delivery of the relevant stages and if required building envelopes will be applied as a restriction to ensure any relevant offsets can be met.

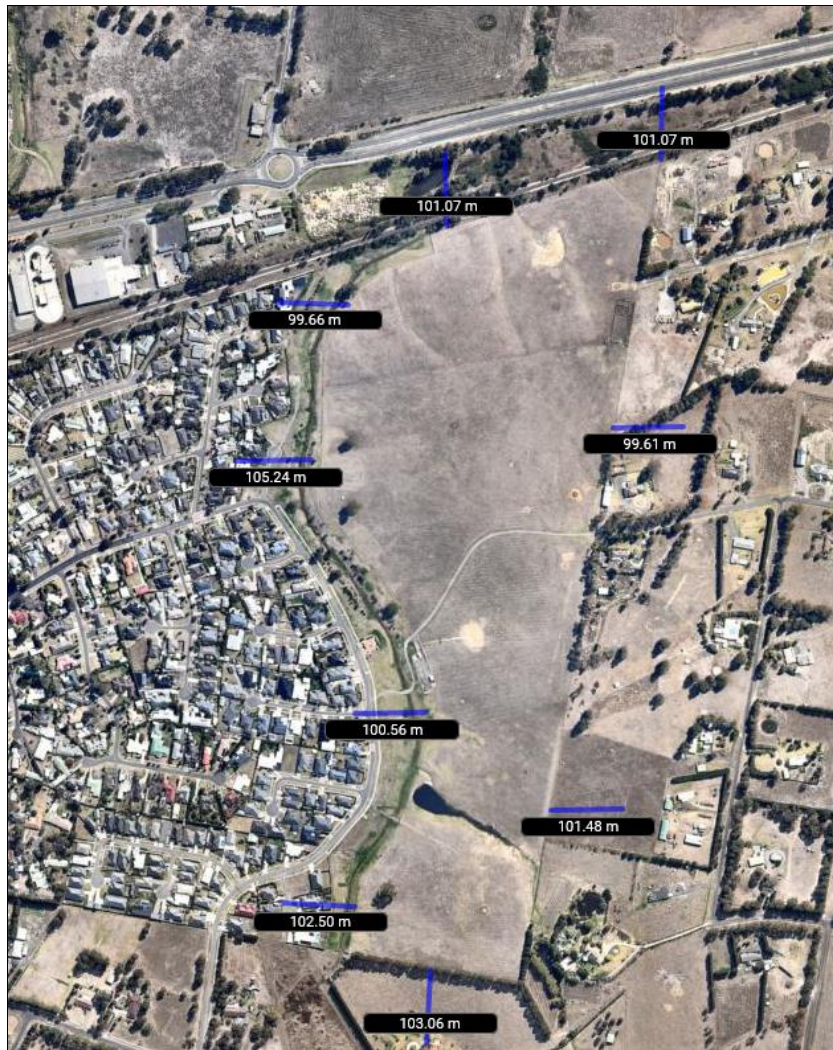


Figure 5: BPA – 100m defendable space  
Source: (Extract from Nearmaps, not to scale)

### 3.6 Aboriginal Cultural Heritage

Ecology and Heritage Partners were engaged to provide advice in relation to any Aboriginal Cultural Heritage issues or triggers associated with the proposed residential development on the subject land. The Aboriginal Heritage Act 2006 and the Aboriginal Heritage Regulations 2007 require that a cultural heritage management plan be completed if both of the following conditions are met; namely:

1. The activity being contemplated (i.e. the type of development) is a 'high impact activity' (as defined in the Regulations), and
2. All or part of the 'activity area' is in an 'area of cultural heritage sensitivity' (as defined in the Regulations).

Ecology and Heritage Partners confirm that there are no historical heritage places located within the study area (Map 3). Therefore, there are no historical heritage implications for the proposed works. Accordingly, there are no statutory triggers requiring a Cultural Heritage Management Plan for this land and/or any development associated with it. A copy of the Ecology and Heritage Partners advice is contained at **Appendix I**.

### 3.7 Roads and Connectivity

The Development Plan provides a street network that connects with the existing road infrastructure specifically, Ellavale Drive to the west, and Nicholi and Mahogany Drives to the east. In the context of the wider road network it is considered the continued growth and expansion of Traralgon East in accordance with the Traralgon Structure Plan could introduce additional connections, access points and alternate routes resulting in a redistribution of traffic within the Traralgon East precinct.

The main entry to the northern part of the site will effectively form a continuation of the east-west part of Ellavale Drive across the drainage reserve, with a roundabout to be provided at its intersection with Southdown Way. This will comprise a 24m road reserve as the central road through the site, connecting to Nicholi Drive at the eastern boundary and providing the opportunity for a future bus route. It is noted that the existing Bus Route 44 connects Ellavale to Traralgon and has a stop located on the subject site's western boundary.

The direct alignment of this road with the intersection of Ellavale Drive and Southdown Way, as shown on the Development Plan, is the preferred road layout as it will provide the most integrated and convenient connection to the site. An alternative alignment of the road connecting south of the preferred location, forming a T-intersection as shown on the Mobility Plan at **Appendix G**, may be considered at the planning permit stage should the detailed engineering design of the intersection and waterway crossing demonstrate that the direct alignment and roundabout is impractical. This alternative alignment or variation there of will be considered at Council's full discretion of the urban design and connectivity benefits and construction impacts of the two options and is subject to Council's approval.

The internal road network generally comprises a network of lower order Access Streets to provide internal circulation. Access Streets typically comprise a 7.3m wide road pavement within a 16m road reserve allowing for two-way traffic flow and intermittent kerb side parking. All proposed internal roads will be provided with footpaths on both sides to provide pedestrian connectivity to the surrounding area. A shared path will be provided along the drainage corridor along the western boundary of the site (north of the main access road) and along the central 20m road reserve. This will provide connection to the established pedestrian and cycle network and also enables future connection further to the east.

Access to the southern part of the site will be provided as a T-intersection from Ellavale Drive. It is noted that the location of this access is to the south of where it was previously envisioned, at the intersection with Ashleigh Place, at the time that the site was created as a balance lot as part of the subdivision of Ellavale Estate. Given the relatively small number of lots that this access will serve and therefore limited traffic movements, it is considered that in this part of the site a T-intersection is acceptable. Provision for a second access to the south, adjacent to the drainage reserve, will be provided for connection with future development to the south.

Connection across the drainage reserve between the northern and southern parts of the site was considered, however given the small number of lots in the southern part and limited number of internal routes that would be expected to utilise such a connection it was not considered necessary.

A Traffic and Transport Assessment is contained at **Appendix J**.

It is proposed that the northern access from Ellavale Drive will comprise a 24m road reserve which will connect from the western boundary to Nicholi Drive at the eastern boundary. The remaining internal road network will generally comprise a network of lower order Access Streets to provide internal circulation and connection to various stages of the proposal. The Access Street will typically comprise a 7.3m wide road pavement within a 16m road reserve allowing for two-way traffic flow and intermittent kerb side parking.

The proposed road network is consistent with the Infrastructure Design Manual and thus the road network is able to cater for a range of mobility types including walking, cycling and personal vehicles.

Future upgrades to the Ellavale Drive and McNairn Road intersection will require a contribution to be determined at the planning permit stage.

### 3.8 Waterways and Stormwater Management

A Stormwater Management Plan (SWMP) has been prepared, contained at **Appendix M**, to demonstrate that the proposed development can meet the Urban Stormwater Best Practice Environmental Management Guidelines (BPEMG) and to provide supporting evidence that the stormwater discharges from the proposed subdivision shall be to the satisfaction of West Gippsland Catchment Management Authority (WGCMA), Latrobe City Council and other relevant authorities.

The SWMS utilises the existing drainage reserve and waterway along the western boundary of the site and follows the existing natural features of the pre-developed site. The strategy is preliminary only and subject to further changes on the size of the proposed lots and drainage reserve area at the planning permit stage. The strategy provides a methodology for the management of stormwater on the subject site which would result in;

*post development flows being detained to ensure that outflow can be catered by the culvert under the railway line to avoid future potential flooding issues. Therefore, detention of post development flow to pre-development flow rates will not be required. In addition, provision of stormwater treatment for the EEDP site to achieve best practice environmental guideline targets will be required.*

*For stormwater quantity management, it is proposed to provide online retarding basin(s) located within the waterway. The basin (s) will make best use of the natural waterway surface contours and the proposed road crossing to control flows. The retarding basin will be designed to detain  $Q_{100}$  flows from the site to the targeted flow that can be safely catered within the culvert underneath the railway line.*

*For stormwater quality management, it is proposed to provide both offline and online sedimentation basins and an online wetland system within the waterway to treat stormwater from the site development area.*

At the time of subdivision, a revised SWMP must be submitted to the satisfaction of the West Gippsland Catchment Management Authority, Responsible Authority and Transport for Victoria to show:

- Both the existing conditions and proposed developed conditions hydrology modelling should be based on best practice, including check of flows against the Australian Rainfall & Runoff (AR&R 2016) Regional Flood Frequency Estimation Model, rather than relying on the now outdated SKM modelling.
- The stormwater infrastructure must be designed based on the best practice modelling techniques as outlined in AR&R 2016 and the infrastructure to control peak flows must be able to be contained within the proposed reserve. The report should be updated to demonstrate that the modelling is compliant with AR&R 2016.
- The hydraulic model should confirm that the stormwater infrastructure has no impacts on the adjoining subdivision and the model must extend beyond the railway embankment to confirm no adverse flood impacts to the downstream property.
- Reporting should specify the location of peak flow estimates, present flood extent maps to scale and clearly show existing and proposed conditions on a single map.
- A Waterway Management Plan will be required prior to any construction of infrastructure on the waterway. The plan must demonstrate how waterway health will be improved and be completed to the satisfaction of the Authority.
- Consideration of the effect of potential hard surfaces such as footpaths on the flow of water.

Specific to Transport for Victoria:



- Transport for Victoria require that the post-development discharge through the drainage culverts is not to exceed the pre-development discharge in a 1% and 18% AEP storm. This **applies during the construction stages** of the development as well.
- If any works at all are encroaching into VicTrack land. The VicTrack land boundary is to be shown and labelled clearly on the plans to be submitted for the above application.
- Confirmation on who would take up ownership and maintenance responsibilities of the retarding basin. If it is to be another authority (eg: the Council, or WGCMA), please provide confirmation of this in writing from this authority.
- Further clarification on how the “Gap Flow” (referred to on page 11 of SWMS report provided) would be flowing through the development in general, and if any of the gap flow or surcharge from the subsurface drainage network (which is catered for a 18% AEP storm) in general would be flowing uncontrolled into the railway corridor.
- Is there any kind of safety factor or blockage factor assumed in the flood modelling calculations for the retarding basin (for example, how would the discharges and freeboard available vary if the retarding basin and/or outfall drains were partially blocked or ineffective – perhaps 10% or 20% blockage in the basin or blockage of outfall drains – due to poor maintenance or other factors)?
- Confirmation that Table 2 in page 10 (of the SWMS report provided) uses the same runoff coefficient and initial loss quantity for both pre-development and post-development (relatively higher impervious areas?) levels.

Figure 6 shows the preliminary stormwater management Concept Layout Plan.

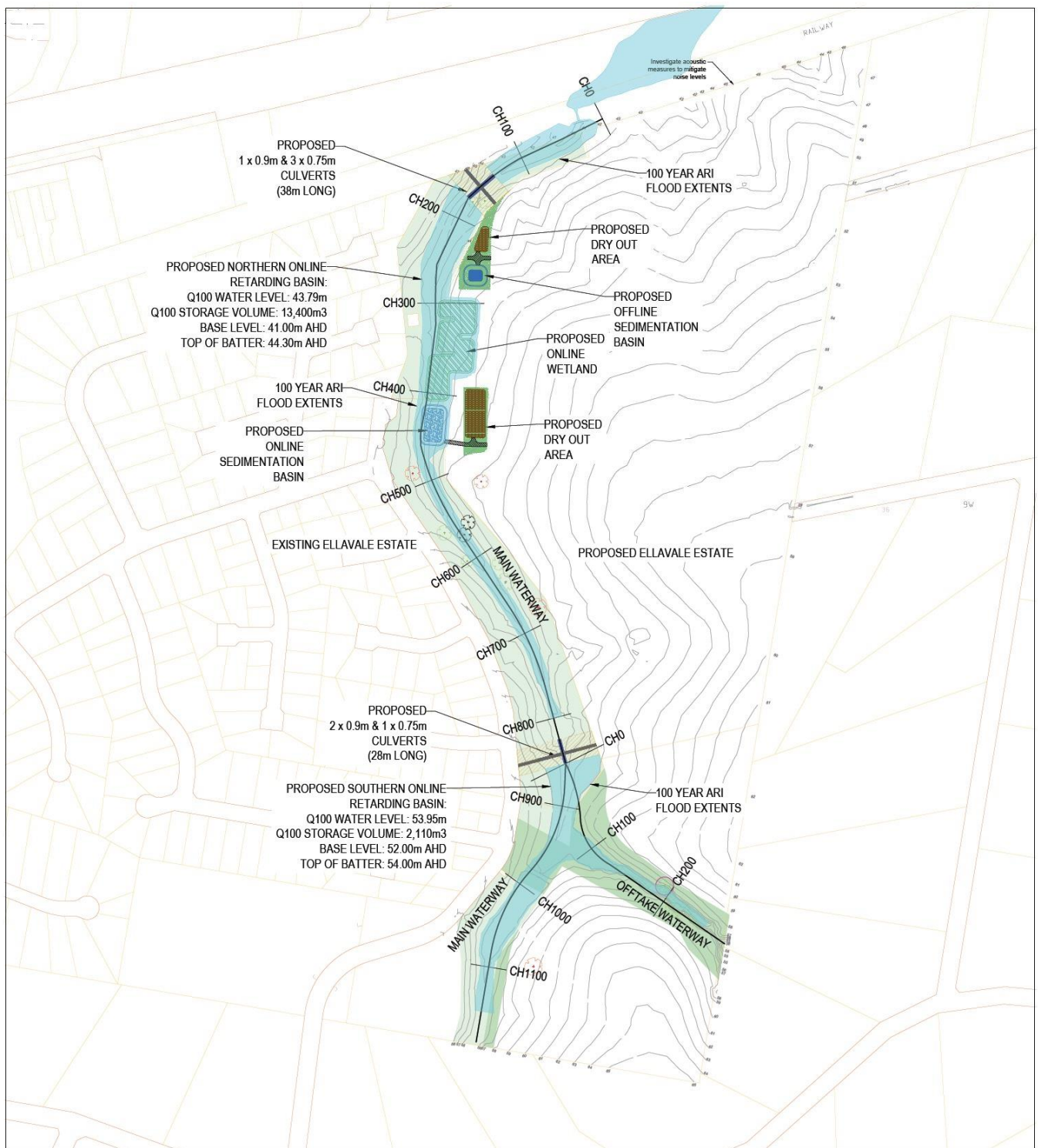


Figure 6: SWMS Concept Layout Plan

Source: Ellavale Estate Eastern Extension Stormwater Management Strategy. Not to scale

Two detention basins are proposed to cater for storage of the 1 in 100 -year ARI post development peak flows, this is to capture a volume of storage up to 15,150m<sup>3</sup>. The detention basins will comprise one in the northern section holding 13,800m<sup>3</sup> and one in the southern area to hold 1,810m<sup>3</sup>.

Flood mapping for existing and post-developed conditions were modelled, it was resolved there was no increase in flood extents for the post-developed Q100 flow from the existing conditions.

In summary, the proposed SWMS can be implemented with no net effect on the downstream properties.

With consideration of the Creek Reserve and the riparian zone it has been discussed with the WGCMA that the opportunity exists to improve the biodiversity of the waterway through planting. As such the proposed width of the riparian zone is considered satisfactory as shown in the Development Plan layout. The WGCMA recommendations will inform any future permit conditions as to the maintenance or rehabilitation requirements of the riparian habitat and consequently the improvement of the stream condition.

### 3.9 Native Vegetation and Flora and Fauna

An initial assessment of the site was undertaken in 2011 by Indigenous Design which has subsequently been updated and extended in 2018, to capture the current site conditions and application requirements.

Indigenous Design Environmental Management Consultants prepared a Flora and Fauna Assessment in 2011 having regard to the Growling Grass Frog and Dwarf Galaxias. The 2011 Assessment identified the following:

- Following the assessment of fauna presence and habitat at the site, it is considered unlikely that any of the species listed in Appendices 5 & 6 would make significant use of the proposed development site in the short to medium-term.
- The degraded state and primarily agricultural use of the land has resulted in a significant lack of native vegetation and connectivity to other native vegetation in the area. These factors are considered to severely limit the site's capability to provide quality habitat and or refuge to the terrestrial fauna listed in Appendices 5 & 6.
- Habitat for aquatic and amphibious fauna is largely poor, and also affected by the long-term agricultural use of the site. Waterbodies located within areas proposed for development, while apparently in reasonable health, are significantly disconnected from natural replenishing sources such as the creek and natural soaks and are not located in low-lying areas likely to be affected by flooding of the nearby creek. Both dams are said to have been periodically dry over the summer period every year since 1996. And for an 11 year period (1998 – 2009), both dams are said to have been dry throughout the year (*pers. comm. Robert Farmer, 23rd September, 2011*). These factors are likely to render the dams unsuitable in the long term for fish species such as Dwarf Galaxias who are said to require 'connectivity to a more permanent waterbody (such as [a] river or creek)'.
- Amphibious species, and in particular the Growling Grass Frog, are by nature more tolerant and suited to disconnected waterbodies such as dams. However, this species is also heavily reliant on the presence and abundance of emergent, submerged and floating vegetation for its calling and foraging (Heard et al. 2008b cited in DEWHA (2009)). This type and arrangement of vegetation is not present within the dams of this site with just one of the dams hosting a central emergent patch of Tall Spike-sedge. Additionally, permanent wetlands and seasonally flooded sites are said to be more likely occupied by the species and provide important core and high-quality breeding habitat.
- While the dams on site meet some of the habitat requirements for this species, it is not expected that the species would make significant use of the site; particularly giving consideration to current land use and management. According to DSE's VBA (DSE, 2010) the last record of this species within 5 km of the proposed Ellavale Estate site was in 1982 and relates to a 5 minute grid which includes the current location of the Loy Yang Open-cut Coal Mine to the south.

In light of the findings of the 2011 flora and fauna assessment, in addition to a conversation between Beveridge Williams and the then DSE on 15 August 2011 suggesting that a specific targeted survey for the Growling Grass-Frog and Dwarf Galaxias may not be considered necessary, it is submitted

that the potential impact to native fauna or habitat is minimal as a result of the proposed development.

It is further submitted that development within the adjoining drainage reserve to manage stormwater runoff will improve the environmental outcome of the drainage corridor through the planting of appropriate aquatic vegetation.

A copy of the 2011 Flora and Fauna Assessment is contained at **Appendix N**.

Indigenous Design Environmental Management Consultants were commissioned to review the native vegetation onsite and provide an assessment against the relevant regulations and controls including Clause 52.17 of the Latrobe Planning Scheme and DELWPs Biodiversity Assessment Report. The consultants have assessed the site on three separate occasions (2011, 2017 and 2018) to inform the relevant application with the current site conditions.

The development of the site with the proposed subdivision requires the removal of native vegetation which would be considered under the requirements of an intermediate assessment pathway under the Department of Environment, Land, Water and Planning's (DELWP) *Guidelines for the removal, destruction or lopping of native vegetation* (DELWP, 2017). The findings of the most recent site assessment in April 2018 are as follows:

- The site study area is contained within the Latrobe City Council, West Gippsland Catchment Management Authority and Gippsland Plains Bioregion. The site visit confirmed the study area contains a mixture of;
  - Remnant vegetation including shrubs and graminoids which previously met the definition of a 'remnant patch' and,
  - 3 scattered native canopy trees within the site; comprising large to very large Gippsland Red Gums approximately 20 to 30 metres tall,
  - A fourth scattered tree had previously been identified in the south east, near the east-west tributary to Loy Yang Creek though it had been brought down in storms and removed since.
  - Field assessments confirmed there are no intact EVC's present in the area identified in the site proposed for residential development.
  - There are 6 medium to large Gippsland Red Gums scattered through the north-south tributary of Loy Yang Creek adjacent to the site,
  - The middle storey is almost absent, with a sparse coverage on the north and south banks of the east-west running tributary of Loy Yang Creek.
  - The ground storey is dominated by exotic pasture and herbaceous weed species are present in heavily degraded areas.
  - The native ground storey is mostly confined to the east-west running tributary to Loy Yang Creek with a small number scattered widely throughout the paddocks of the subject site identified in the original 2011 assessment. It was identified these areas no longer meet the definition of a patch due to the continued grazing and slashing regimens.

Vegetation losses have been identified as follows;

- 2 scattered trees, Gippsland Red Gums, within the site to facilitate the orderly delivery of the subdivision;
- A further three Gippsland Red Gums within the reservation abutting the site along its western boundary, which are large to very large *Eucalyptus tereticornis* subsp. *mediana* (Gippsland Red Gums) approximately 20 to 30 metres tall. The location of these trees abuts the proposed roadways and have been deemed lost due to the impact to the root



zones associated with battering and placement of fill with the proposed future road layout. However where possible, they should be retained. This is reflected in **Appendix H**.

- The total extent of vegetation clearing measures approximately 0.313 hectares (which comprises the combined estimated area of tree canopies)

Construction recommendations have been included to avoid damage to retained vegetation within the Creekline including but not limited to:

Tree Protection Zones are to be clearly delineated;

Adherence to allowable activities within the TPZ is required;

The unavoidable losses will be offset however should additional works incur losses then appropriate measures must be taken to apply the Guidelines and calculate appropriate offsets.

Offset considerations comprise the following elements;

- Using Victoria's Native Vegetation Information System (NVIM) native vegetation to be removed was identified as lost and a Native Vegetation Removal (NVR) report was generated which confirmed;
- The assessment pathway of the proposal was 'intermediate';
- Identified the offset requirement of the native vegetation to be removed 0.313 hectares.
- The offset requirement of 0.078 'general' habitat units and 4 large trees will be purchased through a third-party offset via an allocated credit register extract from a credit provider ensuring the native vegetation policy of 'no net loss' is achieved.
- A quote has been sourced confirming the credits are available and forms Appendix 4 of the report.

The Native Vegetation Assessment Report is provided at **Appendix K** and additionally has informed the preparation of a Vegetation Management Plan provide at **Appendix H**.

As part of future subdivision applications, targeted flora and fauna assessments should be undertaken and appropriate management requirements will be conditioned as part of future planning permits. Submissions raised the likelihood of flora and fauna not identified by the report. Therefore targeted/detailed fauna surveys in response to the comments (specifically looking at species claimed to occur), *and* for species known to occur in the area for which suitable habitat occurs on site (trees, dam/wetland, creeks), including those mentioned in the 2011 report. Targeted fauna surveys involve actively searching for species, using the appropriate methodology for each species, including trapping and monitoring, at a time of day/year that the species would be realistically expected to inhabit the area.

If any fauna species are found, advice may be sought from DELWP, depending on the conservation status on the species.

### 3.10 Infrastructure Services

An infrastructure Servicing Report has been prepared, contained at **Appendix L**, that details the necessary infrastructure required to service the proposed development. A summary of the infrastructure servicing capability is summarised below:

## Electricity

SP Ausnet advises that electrical services can be provided by extending the high voltage (HV) network from existing substations within Ellavale Park Estate.

There are two substations providing supply points for extension. These are located in the following locations:

- Ellavale Drive opposite Ashleigh Court and;
- Ellavale Drive opposite Woodhall Close.

The HV network can be extended to additional substations to be provided by the developer within the new development area. The Ellavale Park Extension would likely require a minimum of four substation sites which will be determined at detailed design stage following issue of a planning permit.

## Gas

APA Group advise that reticulated natural gas is available within the existing Ellavale Park Estate and can be extended to service the Ellavale Park Estate Extension. Further, APA Group confirms the service extension would be from Ellavale Drive adjacent to Southdown Way.

APA Group suggest the connecting road across the watercourse to the new development area should be as close as practical to the supply point. This is to reduce the likelihood of a developer charge being required as the cost of construction along a road network is generally regarded by APA Group as being cheaper. However, crossing the watercourse outside of a road reservation is possible.

## Telecommunications (Fibre Optic)

The Telstra network currently services the existing Ellavale Park Estate and can be extended to service the Ellavale Park Estate Extension.

## Sewer

Gippsland Water has confirmed that the site can be serviced via gravity sewer reticulation throughout the development to the pump station currently servicing the existing Ellavale Park Estate. Recent communication with Gippsland Water indicates that augmentation works will be required to the existing pump station when the number of additional lots connected exceeds 200. The augmentation works are expected to require upgrades to the pumps and electrics.

Additionally, a DN225 sewer extension will be required to be constructed from the existing sewer pump station to, and along, the east side of the waterway.

It is submitted that the proposed 307 lot residential subdivision can be adequately serviced following the upgrade to the existing pump station.

## Potable Water

Gippsland Water is the responsible authority for water assets in the area and they have provided land servicing advice for water supply to the development.

The authority has confirmed that the supply of potable water is available from the existing reticulation assets located in Ellavale Estate. The water main can be extended from the existing subdivision and adequately service the proposed estate.

A copy of the Infrastructure Servicing Strategy is contained at **Appendix L**.

## 4 STAGING & IMPLEMENTATION

### 4.1 Staging

The Staging Plan contained at **Appendix E** identifies four stages with stages 1-3 occurring on the northern land parcel and stage 4 occurring on the southern parcel.

Stage 1 is proposed to include the main entrance to the estate which is relatively central to the overall development. The following stages generally occur to the centre of the estate before heading north and completing development of the northern parcel of land.

The southern parcel of land is proposed to be developed as a separate stage.

The proposed staging is based on the logical and efficient delivery of infrastructure and servicing of the estate and forms a cohesive and integrated extension to the existing residential area to the west.

The development may occur out of sequence to the nominated staging, with approval of the responsible authority, and would address any requirement to deliver relevant infrastructure with the specific staging. The detailed design of stages will resolve the infrastructure requirements and delivery associated with a specific stage will be considered with any further permit application for subdivision. It is considered the 4 stages detailed above will be delivered in smaller stages and there may be up to 11 stages in total resolved with the permit application.

### 4.2 Subdivision Applications

In addition to the applicable provisions of the planning scheme, an application for subdivision and/or development should consider the following:

- The subdivision layout and design must be generally in accordance with the Ellavale East Development Plan.
- Lots directly abutting the northern boundary along the Gippsland Railway Line, and any further lots as considered appropriate, must adopt the required measures to mitigate noise levels associated with the railway line, as informed by an acoustic assessment undertaken at the planning permit stage. Consideration should be given to which stage of development an acoustic fence is required as it may be earlier than the stage directly abutting the railway line. Mitigation measures will need to ensure the dwellings are constructed to the following noise levels:
  - Not greater than 35dB(A) for bedrooms, assessed as an LAeq,8h from 10pm to 6am.
  - Not greater than 40dB(A) for living areas, assessed LAeq,16h from 6am to 10pm.

For fencing adjoining the railway line, specifications set out by S173 Agreement AD914561P is acceptable as it requires fencing to be erected within 3 months of occupancy. In order to discourage trespassing the footholds side of the fence must be placed on the rail reserve side.

Fencing should be reviewed by Vline to ensure it does not block signal sighting and access to tracks. Referral for this should be sent to:

**David Dunston**

Business Development Manager – Asset Management

V/Line Pty Ltd

Level 9, 750 Collins Street

Docklands VIC 3008

GPO Box 5343 Melbourne VIC 3001

**T** (03) 9619 5256

**M** 0403 195 640

**E** david.dunston@vline.com.au

- Building envelopes for lots affected by a minimum setback in relation to bushfire should be considered to ensure that the relevant Bushfire Attack Level is achieved. If building envelopes are not considered necessary the responsible authority and the CFA should be satisfied that bushfire requirements can be appropriately met and maintained after the subdivision has been completed.
- Public Open Space must be provided generally in accordance with the EEDP, with a cash contribution to be paid for any shortfall of unencumbered land contribution to meet the total requirement of 8% of the net developable area.
- Lots directly abutting reserves should be designed to facilitate passive surveillance. Consideration should be given to a requirement for design guidelines and Section 173 Agreement, or other mechanisms as appropriate, to ensure an appropriate design on affected lots after the subdivision has been completed.
- Infrastructure must be designed and constructed in accordance with Council's relevant policies.
- The detailed design for works within the drainage reserve should avoid the removal of any further native vegetation than identified on the Vegetation Management Plan forming part of the Development Plan.
- A Waterway Management Plan and revised SWMS (**Appendix M**) must be prepared to the satisfaction of the West Gippsland Catchment Management Authority. WGCMA recommendations will guide any management strategies to improve the biodiversity and amenity within the Creek reservation and additional planting which may be required.
- Since the development proposes to utilise an existing drainage culvert running through the railway corridor, the standard 3rd party access application (refer attached "Third Party Access form") involving the 4-phase review, approval and licensing process will be required in order for VicTrack to issue a statement of compliance for the use of this culvert in the railway corridor. (A copy of this form has been sent to Beveridge Williams). It would be advisable for the developer to initiate contact with the Accredited Rail Operator (ARO) - V/Line in this case - in order to ensure all of their requirements are satisfied prior to submitting a formal application (the developer/applicant can contact our team on services@victrack.com.au to carry on the review and discussion further once development plans are finalised or progressed further).

This review would be required in order to ensure the development does not affect the railway corridor or the rail operator's ability to continue rail operation in any way, and would be required even if no works are proposed within VicTrack land (unless otherwise agreed to by VicTrack and the ARO).

- Drainage infrastructure will be provided in accordance with the revised Stormwater Management Plan..



- A Landscape Master Plan must be prepared and submitted as part of any subdivision application. The landscape plan must be generally in accordance with the EEDP and include;
  - Existing landscaping features constructed as part of the Ellavale Estate subdivision.
  - Vegetation to be retained and removed.
  - The areas of public open space and road reserves to be planted, including landscape detail.
  - The species, height and width and placement of trees.
  - The location of pedestrian pathways, signage, fencing, public lighting and street furniture.
  - The detailed design of drainage areas and WSUD features.
  - The staging of landscaping works in relation to stormwater infrastructure.
- The landscape design must:
  - Ensure landscaping opportunities supports surveillance and provides shade in streets, parks and public open space.
  - Develop appropriate landscapes for the intended use of public open space including areas for passive and active recreation, playgrounds and shaded areas.
  - Provide appropriate pathways, signage, fencing public lighting and street furniture.
  - Be compatible with any waterway management requirements of the WGCMA.

## **APPENDIX A.      Certificates of Title**

## **APPENDIX B.      Site Context Plan**

## **APPENDIX C.      Site Analysis Plan**



**APPENDIX D.      Proposed Ellavale Estate Eastern Extension Development Plan**

## **APPENDIX E.      Indicative Subdivision and Staging Plan**

## **APPENDIX F.      Design Response Plan**

## **APPENDIX G.     Mobility Plan**



## **APPENDIX H.      Vegetation Management Plan**

## **APPENDIX I.      Aboriginal Cultural Heritage Advice**

## **APPENDIX J.      Traffic Impact Assessment Report**

## **APPENDIX K. Native Vegetation Assessment**

## **APPENDIX L.      Infrastructure Servicing Strategy**



## **APPENDIX M. Stormwater Management Strategy**

## **APPENDIX N.      Flora and Fauna Assessment 2011**

## APPENDIX O. LANDSCAPE MASTERPLAN

## APPENDIX P. CROSS SECTIONS

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