

# Quandong

Precinct Structure Plan

## Precinct Structure Plan Background Report

March 2018



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# 1 INTRODUCTION

## 1.1 Introduction

The Quandong (PSP 1092.1) Precinct Structure Plan (the PSP) applies to 153 hectares of land (the Precinct) located approximately 33 kilometres west of the Melbourne CBD. The Precinct sits within Melbourne's West Growth Corridor, as illustrated in Plan 1. The *West Growth Corridor Plan* (June 2012) identifies the corridor as one of the fastest growing regions in Australia, and recognises the need for its precincts to cater for new residential, business and industrial development. Melbourne's West Growth Corridor incorporates both the City of Wyndham and the City of Melton, and includes land between the Princes Freeway in the south and the Melton Highway in the north. The area covered by the West Growth Corridor Plan will eventually accommodate a population of over 377,000, and have the capacity to host at least 164,000 jobs.

Located in the City of Wyndham, the Quandong PSP will assist the transition of the area from its current non-urban and mostly agricultural land use into urban land, and conservation area. The PSP will provide new residents with affordable and diverse housing options. The future residents of the community will enjoy and benefit from the environmental, social and economic assets proposed in the PSP and the greater network of infrastructure outlined in Melbourne's West Growth Corridor. The Precinct Structure Plan will focus on the layout of roads, open space, parks, housing, as well as multimodal connections to transport and community facilities and schools in neighbouring precincts. It will also define a concept plan for BCS Conservation Area 13 and outline interface requirements for adjoining land uses within the Precinct.

The Quandong Precinct, along with six adjoining PSP precincts, form the Wyndham West development area which contributes to an integrated Wyndham West Development Contributions Plan (DCP). The DCP, which is incorporated in the Wyndham Planning Scheme, administers funding for transport, open space and community infrastructure. Because of its small size, the Quandong Precinct will largely be reliant upon community infrastructure and major service provision from adjoining precincts. The catchments of such neighbouring infrastructure and services have been designed to include the Quandong Precinct.

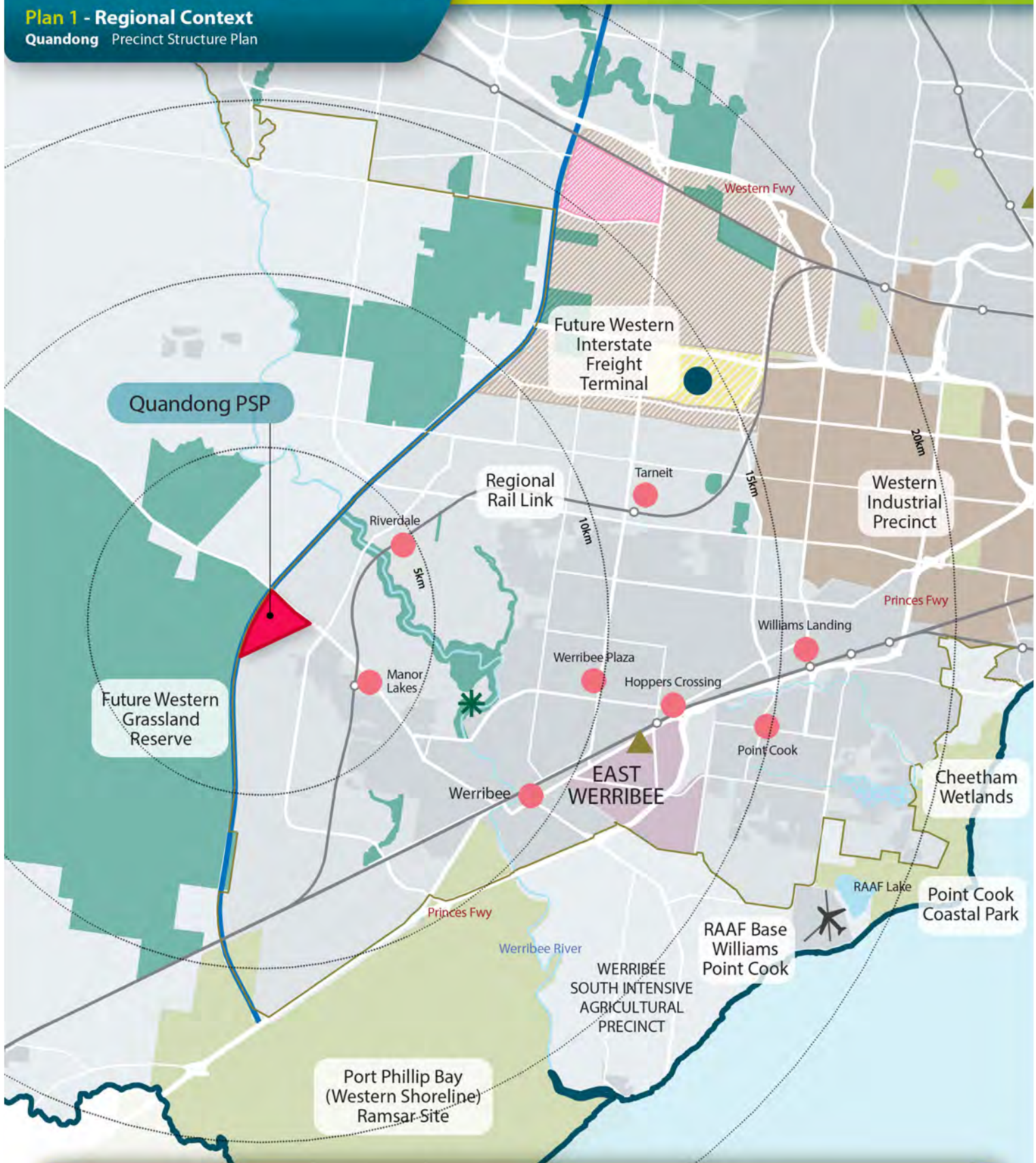
Wyndham City Council is managing the preparation of the Quandong PSP in conjunction with the Victorian Planning Authority. Wyndham City Council is the planning authority for the PSP and will be the responsible authority for the PSP's implementation.

This Background Report will assist in providing context for the preparation of the Quandong PSP document. A full list of the supporting documentation that has informed the preparation of the background report and PSP can be found in Chapter 6.



# Plan 1 - Regional Context

## Quandong Precinct Structure Plan



## 2 METROPOLITAN AND REGIONAL CONTEXT

The Quandong Precinct is located within the Wyndham West growth front - a previously rural district situated within the City of Wyndham that is currently experiencing rapid change. The Wyndham West growth front (along with the Wyndham North growth front) is poised to become a core area for urban expansion in the City of Wyndham over the next 30 years. It has the capacity to deliver approximately 31,000 new dwellings accommodating around 87,000 persons, and provide in the order of 16,000 jobs. Under development immediately to the north of the Quandong Precinct, is the Westbrook Precinct, which will accommodate at least 16,000 residents and is expected to yield over 2,200 ongoing jobs. Directly adjoining the Quandong Precinct to the south is the Manor Lakes Precinct, which will house more than 13,000 residents. The Quandong Precinct will provide the missing link between these two precincts and thereby facilitate connectivity and accessibility within Wyndham West area.

The Precinct is positioned on Ballan Road, within 3km of the Manor Lakes Town Centre. The Melbourne West Growth Corridor Plan designates the Manor Lakes Activity Centre as a Major Town Centre. The existing Wyndham Vale Railway Station is colocated with the Manor Lakes town Centre and currently connects via the Regional Rail Link (RRL) to provide access by V/Line services to the Geelong CBD within 28 minutes and the Melbourne CBD within 34 minutes.

The Westbrook Precinct is situated adjacent to the north west of the site, on the opposite side of Ballan Road. A proposed local convenience centre is to be situated on Ballan Road immediately opposite the Quandong Precinct, which will serve the future residents of Quandong Precinct. Also within the Westbrook Precinct will be a P-12 Non Government School, and a P-6 Government School. Provision has been made in the Westbrook Precinct for a local town centre and an employment area.

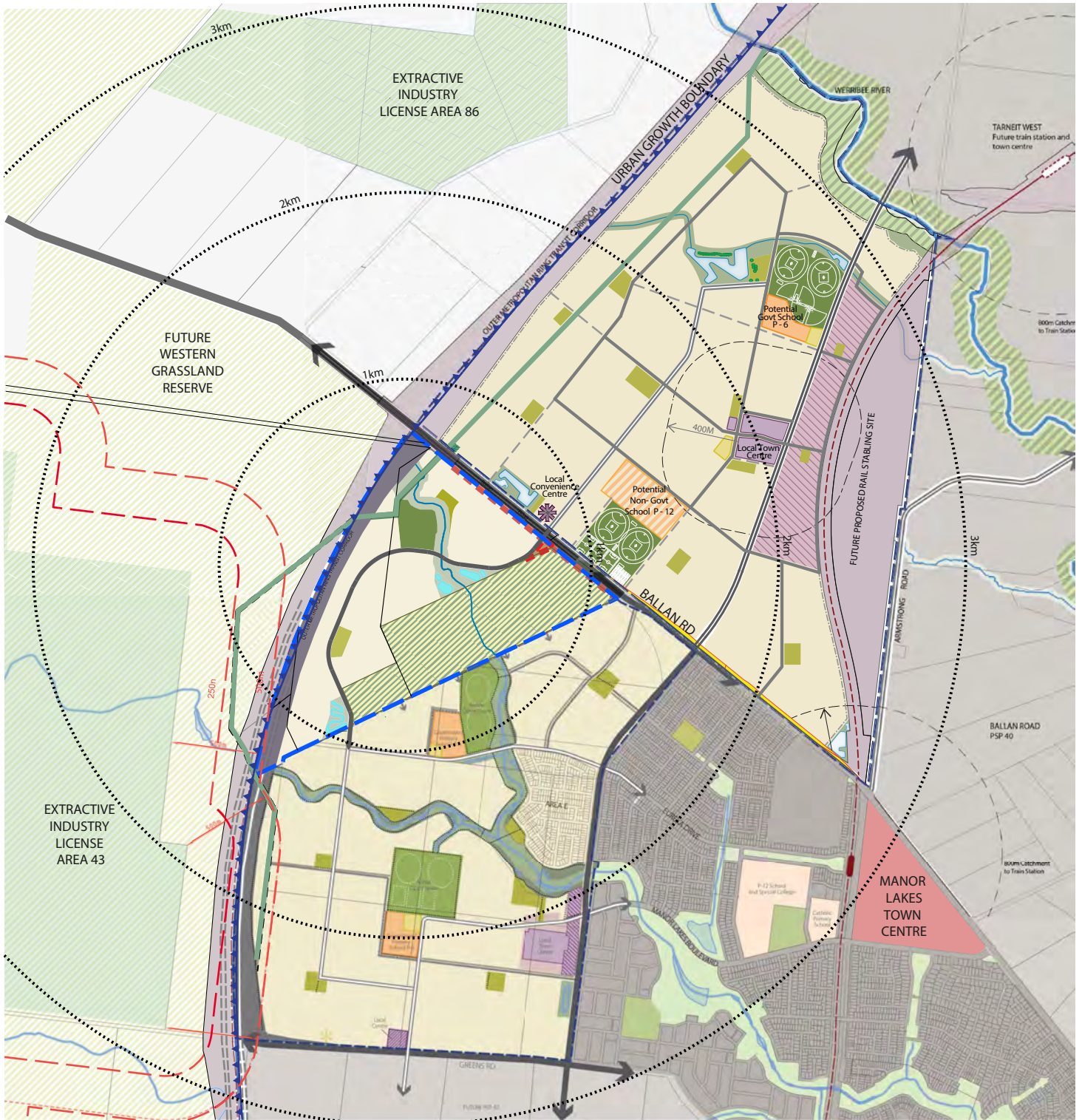
The Manor Lakes Precinct is located to the south of the site, forming the southern boundary of the Quandong Precinct. The Manor Lakes Precinct will feature a continuation of the linear parkland along the waterway corridor. This serves to create a linked area of open space to be used for both passive and active recreation. Within the Manor Lakes PSP are two Government primary schools, each with adjoining community facilities, and two large areas designated for active open space, which will accommodate sports grounds and playing fields. The plan also includes a local town centre with areas for employment and mixed use development, and a second smaller local centre within the development.

The Quandong Precinct is bounded to the west by a reservation for the future Outer Metropolitan Ring/ E6 transport Corridor (OMR), which has capacity to incorporate both a freeway and rail, and will enable north-south connection to the wider metropolitan area. The Precinct is also well positioned to capitalise on future significant road infrastructure projects, specifically the widening of Ballan Road, and the creation of the north-south Armstrong Road/ Ison Road arterial, which will provide direct access to the Princes Freeway.



## Plan 2 - Local Context

Quandong Precinct Structure Plan



precinct boundary



urban growth boundary

future urban area

future grassland reserve



active open space reserves



passive open space reserves



government schools



non government schools



community facilities



local town centre



major town centre



railway station (existing)

quarry buffer

residential

conservation area

employment area

high pressure gas transmission pipeline

## 3 LOCAL CONTEXT

### 3.1 History

The Traditional Owners of land within the Precinct are the Wadawurrung people. Since European settlement of the Wyndham West area, the land has been predominantly used for farming and agricultural purposes, with the Precinct area forming part of the extensive Chirnside family holdings. Wyndham West has retained its semi-rural character, despite the Municipality's transition since the 1970s into a Metropolitan growth area.

### 3.2 Lot Size & Ownership Pattern

The Precinct is irregular in shape and consists of 6 land parcels. The formal description of the land within the Precinct is identified in **Table 2**.

During the process of planning the PSP, the area where the Precinct is located undertook a suburb name change from 'Wyndham Vale' to 'Manor Lakes'. As such, addresses for land parcels within the Quandong Precinct may have been referred to as being within Wyndham Vale in the background reports.

**Table 2 – Land within PSP Area**

Parcel No.	Address	Lot/Plan	Whole or part?	Area within PSP
1092.1-01	Ballan Road, Manor Lakes	Lot 8 LP125246	Whole –Retained as BCS Conservation Area 13	45.21 ha
1092.1-02	955 Ballan Road, Manor Lakes	Lot 7 LP125246	Whole	45.48 ha
1092.1-03 1092.1-04	1005 Ballan Road, Manor Lakes	Lot 6 LP125246	Part	55.36 ha 0.31 ha
1092.1-05	Argoona Road, Manor Lakes	Lot 2: LP149606	Part – All within Future OMR Road Reserve	1.78 ha
1092.1-06	Argoona Road, Manor Lakes	Lot 1: TP624547	Part	4.86 ha

Of the land known as 1005 Ballan Road, the northern portion of the site is currently used as a residential property, with numerous out buildings and scattered vegetation. The balance of the site has been cleared for agricultural purposes.

The whole of the land parcel at 955 Ballan Road is located within the Quandong Precinct. This site has one residential property facing Ballan Road, with scattered vegetation along the boundaries and

planting along the driveway into the site. The majority of the parcel is however cleared for agricultural purposes.

The parcel of land in the south east portion of the Precinct, know as “Lot 8” Ballan Road, is currently used for horse agistment, and contains a significant amount of native vegetation.

### 3.3 Surrounding Neighbourhoods

The existing Werribee, Wyndham Vale and Manor Lakes residential communities are commonly defined by the Werribee River to the east. Urban development of the area has occurred gradually since the 1960s and now comprises an existing community of approximately 35,000 people. The Manor Lakes Activity Centre is nominated as the future Major Activity Centre for the area and will ultimately host a transport-orientated development and provide higher order shopping and services for the area. The Werribee Racecourse, Presidents Park and Eagle Stadium are key recreational assets underpinning the existing community and serve a broader role across Wyndham. Lollypop Creek and its tributaries provide a passive linear corridor that serves a key role in linking the communities.

To the west of the OMR will be the future Western Grassland Reserve that will provide in excess of 15,000 hectares of conservation land. To the south of the Melbourne-Geelong Railway line is open farmland and the Wyndham Refuse Disposal Facility. This land has recently been included within the Urban Growth Boundary (UGB). To the north of the Werribee River, land has been released for urban development and has been planned as part of the Wyndham North PSPs.

### 3.4 Transport & Movement

#### 3.4.1 Road Network

The existing arterial road network includes the following key elements:

- Ballan Road, a two-lane road with managed access aligned in the north-west/ south-east direction that is the central radial route in western Wyndham (declared main road under VicRoads control);
- Bacchus Marsh- Geelong Road, a two lane arterial road with managed access aligned in a north-south direction (declared main road under VicRoads control);
- Bolton Road/ Heaths Road, a two-lane/ four lane road with managed access aligned in an east- west direction (declared main road under VicRoads control);
- McGrath Road, a two lane road aligned in a north-south direction connecting Bulban Road in the south with Ballan Road and Heaths Road in the north;
- Greens Road, a two lane road aligned east-west connecting Ballan Road to the future alignment of Armstrong Road.
- Bulban Road, a two-lane road with managed access aligned with the Melbourne-Geelong Railway line in a south-west/ north-east direction (managed as a Council arterial).
- Black Forest Road, a two-lane road with managed access aligned in an east-west direction (managed as a Council arterial).
- Edgars Road.

The Wyndham West area is currently accessed directly from the Princes Freeway at Geelong Road.

Ballan Road provides connection to the Werribee City Centre to the south-east, and access to Bacchus Marsh to the north-west. Bolton Road / Heaths Road provides a connection across the Werribee River in an easterly direction.

#### Key Road Delivery and Development Staging

Traffic management is currently an issue for Wyndham, with traffic from the west of the municipality travelling through existing suburbs creating congestion at Cottrell Street and elsewhere during peak travel times. The development of the Wyndham West growth area will generate additional traffic demand but will also provide the development contribution funding to expand and augment the arterial road network to service this demand. It is critical to plan for a road system that can be delivered in a timely manner to minimise further traffic congestion problems.

To address this issue, the early delivery of Arsmtrong Road/ Ison Road from Manor Lakes to the Princess Freeway, inclusive of a major bridge over the Melbourne-Geelong Railway Line to provide a connection into and out of the area, is proposed.



Investigation and consultation regarding the provision of these works is currently underway with a proposed scenario as follows:

- The new arterial road network would be delivered by a combination of funding from developers (through Development Contributions Plans, provision of land and works in kind),
- Council funding (utilising funds previously collected from developers) and State funding (utilising GAIC funds where possible).
- In addition, mechanisms are being planned within PSPs to link the first stages of development to infrastructure delivery, so that major road infrastructure will be constructed earlier than it otherwise would be.
- The first critical stage of infrastructure is the construction of Armstrong Road from Ballan to Ison Roads and the construction of Ison Road from Armstrong Road to the Princess Highway (including the bridge over the Melbourne-Geelong Rail) providing a traffic route that relieves the Cottrell Street intersection.

#### 3.4.2 Existing Pedestrian & Cycle Paths

Walking and cycling trails currently exist along parts of both the Werribee River and Lollypop Creek corridors.

When development is complete, the Wyndham West area will feature an extensive road and trail network to facilitate cycle and pedestrian movements, and in particular to link key destinations such as schools, local town centres and public transport facilities.

Throughout the Wyndham West area there will be numerous on-road cycle lanes as well as off-road shared trails that run adjacent to roads, along waterways and open space corridors as well as the east side of the OMR and both sides of the RRL.

This combination of on and off-road routes will allow for commuter cycle trips as well as recreational cycling and walking.

#### 3.4.3 Public Transport & Regional Rail Link

##### Bus Services

Currently, there are four bus routes that run to or through Wyndham Vale Station, providing connections to Werribee Station and City Centre, Hoppers Crossing Station and Pacific Werribee shopping centre. There is also a Night Bus service from the Melbourne CBD. The bus routes are:

- 166 - Hoppers Crossing Station - Wyndham Vale Station via Werribee Plaza SC
- 190 - Werribee Station - Wyndham Vale Station via Ballan Rd
- 191 - Werribee Station - Manor Lakes via Greaves St
- 192 - Werribee Station - Wyndham Vale Station via Black Forest Rd
- 945 - *Night Bus* - City - Geelong Rd - Tarneit - Hoppers Crossing - Werribee - Wyndham Vale

Ballan Road and the future northern section of Armstrong Road, north of Ballan Road, have been identified as part of the Principal Public Transport Network (PPTN). As part of the PPTN, Ballan Road will host both regional and local bus routes, which will connect to the Werribee City Centre and the Wyndham North area via the future Armstrong Road crossing of the Werribee River.

Ison Road has also been identified as a high frequency bus route that will be capable of delivering 'SmartBus' type services to the Wyndham West community.

In addition, the Wyndham West area will have a bus capable connector road network offering local bus services to future residents and ensuring that the majority of residents are within 400m of a bus route.

##### Rail Services

The Quandong Precinct is located within 3-4km of Wyndham Vale Station at Manor Lakes, at its closest corners. V/Line services operate via the Regional Rail Link (RRL) to provide access from Wyndham Vale Station to Geelong within 28 minutes, Sunshine with 19 minutes, Footscray within 25 minutes, and Southern Cross Station in the Melbourne CBD within 34 minutes. A future station at Black Forest North will also service the area.

A future electrification of the RRL and extension of the Werribee Line to Wyndham Vale Station will provide direct rail access from Manor Lakes to destinations including the Werribee City Centre, East

Werribee Employment Precinct (Derrimut Road), Hoppers Crossing, Williams Landing and Laverton, as well as a second rail route to Footscray and the Melbourne CBD.

### 3.5 Town Centres & Employment

A network of existing and planned town centres will service the Wyndham West area in the future.

The existing centres (including those currently under development) of most relevance to the Quandong Precinct include:

- Manor Lakes Major Town Centre, a Major Activity Centre with stage one completed, located 1.8km south-east of the Precinct;
- Werribee City Centre, a Principal Activity Centre, located 7.3km south-east of the Precinct; and
- Pacific Werribee Shopping Centre (Werribee Plaza) , a Major Activity Centre, located 9km to the east of the Precinct

Future centres that will service residents of the Quandong Precinct include:

- Ballan Road Local Convenience Centre, located 100m to the north of the Precinct;
- Westbrook Local Town Centre, located 1.1km to the north-east of the Precinct;
- Ison Road Local Town Centre, located 1.5km to the south-east of the Precinct;
- Black Forest Road North, a Major Activity Centre, located 3.7km to the south-east of the Precinct.

The Wyndham West area will also be served by three significant proposed employment precincts, being:

- The Wyndham North Employment Area along Boundary Road to the north of the Precinct, planned to be developed as a major employment area to support the proposed Western Intermodal Freight Terminal;
- The East Werribee Employment Precinct (EWEP) located to the south-east of the Quandong Precinct that will build on the current employment opportunities provided by the Mercy Hospital, Victoria University and the Melbourne University Veterinary School to provide 50,000 jobs, and;
- The Bayview, Mambourin East and Werribee Junction precincts (PSPs yet to be planned) to the south of the Quandong Precinct that will provide business and industrial zoned land to create significant job opportunities.

### 3.6 Open Space

#### 3.6.1 Active Open Space

Existing sporting reserves proximate to Quandong include:

- Manor Lakes Reserve, colocated with the Wyndham Vale Community Learning Centre at Howqua Way, Manor Lakes;
- Haines Drive Reserve, colocated with the Wyndham Vale Primary School, Haines Drive, Wyndham Vale;
- Wyndham Vale Reserve on the north side of Black Forest Road, Wyndham Vale; and
- Presidents Park, a regional sports reserve located along the Werribee River on the eastern side of McGrath Road, Wyndham Vale.

New local active open space reserves will be delivered within each Precinct in the Wyndham West area, in various configurations to cater for high participation sports such as Australian Rules football, soccer, cricket and tennis. Some PSPs will also provide opportunity for less common sports such as rugby, softball, baseball and lawn bowls.

#### 3.6.2 Passive Open Space

Passive open space reserves have recently been delivered within 100m of the Precinct, to the north in the Westbrook Precinct. The Quandong Precinct will have unique and easy access to the regional open space network via the Lollypop Creek and Werribee River corridors. A large future Parks Victoria managed metropolitan park, the 'Werribee Township Regional Park', will be located generally between Presidents Park and the Werribee River, incorporating the Werribee River and terminating at the future Armstrong Road/Hobbs Road crossing.

Each Wyndham West PSP will also deliver a range of small, medium and occasional larger passive parks within walkable distance of most residents. These parks will be integrated within the broader open space network.

### **3.7 Community Facilities and Services**

Existing community facilities located at Manor Lakes within 3km of the Precinct include the Manor Lakes P-12 College, Our Lady of the Southern Cross Catholic Primary School, Wyndham Vale Montessori Centre, Wyndham Vale Kindergarten, Wyndham Vale Library and the Wyndham Vale Community Learning Centre. The Wyndham West area also includes kindergartens at Iramoo and Vista Way and government primary schools at Wyndham Vale and Iramoo. Eagle Stadium in Werribee is a regional level indoor sports facility servicing Wyndham West.

The Wyndham West area will have sufficient population and distance from existing urban communities to warrant a significant quantity and diversity of community infrastructure. Most of this infrastructure is/will be located within eight main community infrastructure hubs based around proposed town centres or colocated with schools. Similarly, the anticipated population will drive the need for approximately nine government primary schools, three government secondary schools and at least five non-government primary schools and two non-government secondary schools. Indoor recreation facilities, arts and cultural facilities, justice and emergency services, and residential aged care services may also be required.

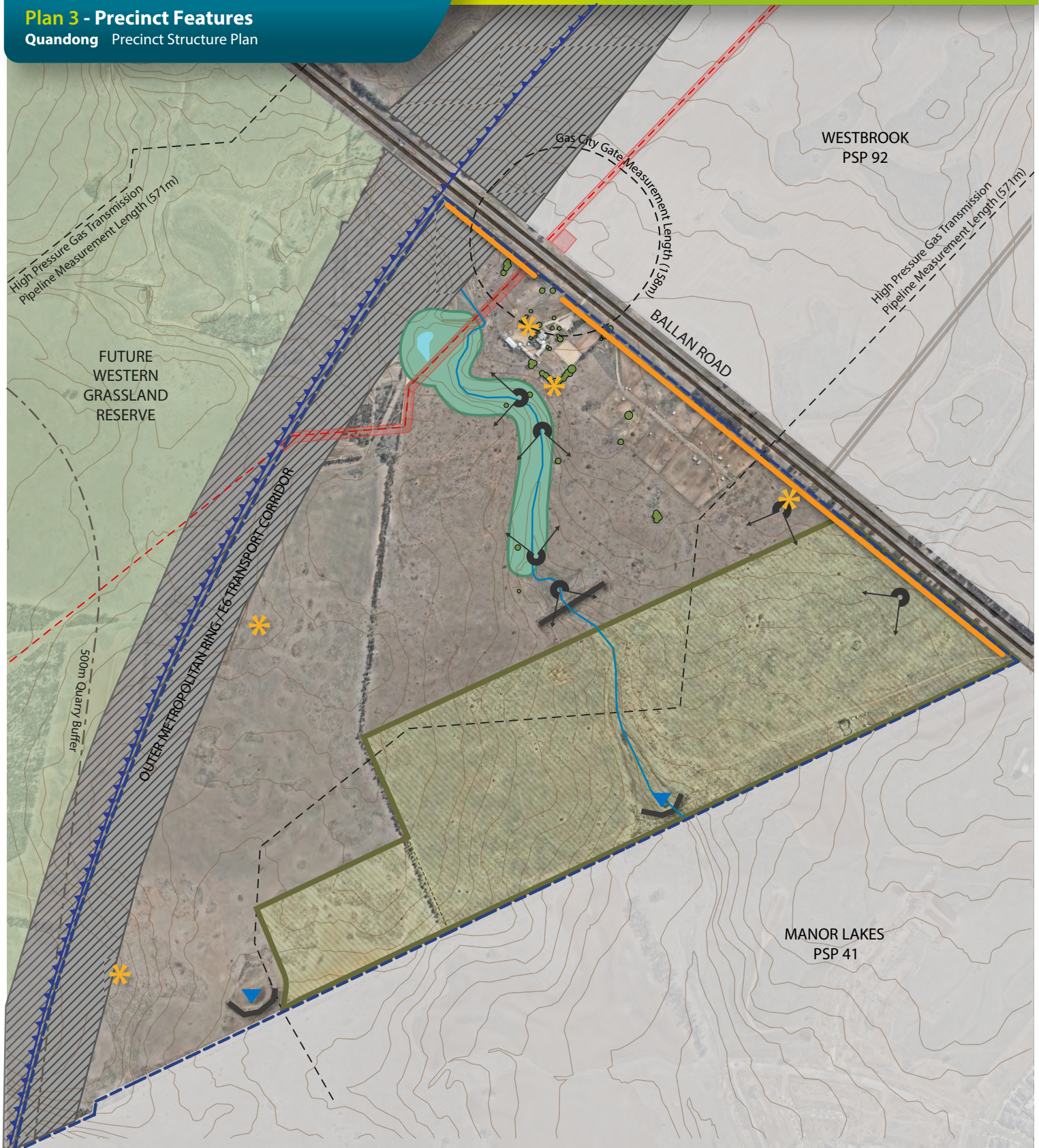
With retail centres located in the neighbouring Westbrook and Manor Lakes precincts, demand is not sufficient for additional retail within the Quandong Precinct. A local convenience centre within the Westbrook PSP area is located immediately adjacent the Quandong PSP on the opposite side of Ballan Road. This will be easily accessible to residents requiring small-scale retail. Quandong PSP residents will be served by two Local Town Centres within 1.5km of the Precinct.

The Quandong Precinct is also within 400m to 2km of schools planned for adjoining precinct areas. There are two government primary schools planned for the Manor Lakes Precinct to the south, and one government primary school and a non-government P-12 school are planned for the Westbrook Precinct to the north.



### Plan 3 - Precinct Features

Quandong Precinct Structure Plan



- |  |   |  |                                     |  |  |
|--|---|--|-------------------------------------|--|--|
|  | precinct boundary                                     |  | existing waterway & drainage assets |  | high value natural wetland                           |
|  | urban growth boundary                                 |  | high value geomorphology            |  | existing dry stone wall                              |
|  | future urban area                                     |  | existing dam wall                   |  | existing trees                                       |
|  | future grassland reserve                              |  | contours (1.0m interval)            |  | gas city gate  |
|  | outer metropolitan ring / E6 transport corridor (OMR) |  | strategic views                     |  | high pressure gas transmission pipeline and easement |
|  | BCS conservation area 13                              |  | high point                          |  | measurement length                                   |
|  |   |  | low point                           |  | quarry buffer  |

## 4 CURRENT ENVIRONMENT

### 4.1 Aboriginal Cultural Heritage

The Quandong Precinct lies within the traditional land of the Wadawurrung, who are part of the Kulin Nation.

A complex CHMP was prepared by Ecology and Heritage Partners for the site following the completion of a desktop and standard assessment of the site. A subsurface testing program was conducted and resulted in the identification of numerous artefacts within the site.

Following the complex assessment, the following Aboriginal Places were registered in the activity area:

- VAHR 7822-3837 (955 Ballan Road Wyndham Vales AS1), which comprised an extensive scatter of stone artefacts of various types and raw materials found along the watercourse landform in Lot 7. The site extent was registered on a landform basis to acknowledge the spatial extent of artefacts throughout the landform. A total of 181 artefacts were found, primarily in a surface context (n=167; 92%) with very few found in a subsurface context (n=14; 8%); and
- VAHR 7822-3836 (955 Ballan Road Wyndham Vale LDAD), which comprised a total of 10 stone artefacts located in the remaining two landforms (undulating plains and low rise/ridge). Of those eight were surface artefacts (80%) and two were subsurface artefacts (20%).

The CHMP contains a number of management recommendations that respond to these significant areas.

### 4.2 European Cultural Heritage

Early European settlement for the Wyndham West area began after 1850, centred on a small number of prominent pastoralists including the Chirnside family. Pastoral leases eventually gave way to small freehold farms with the region sustaining a wide range of agricultural uses including market gardens and livestock grazing.

There are no sites within the Wyndham West area that are currently listed on the Victoria Heritage Register or the Victorian Heritage Inventory.

Throughout the Wyndham West area there are a number of dry stone walls that pre-date 1940. The dry stone walls along the Precinct boundary on Ballan Road are listed in the Wyndham Planning Scheme Heritage Overlay as part of HO132 Ballan Road Walls, Werribee.

#### 4.2.1 Historical Heritage Assessment

The field survey conducted on site recorded one previously registered historical heritage site, a composite-style dry stone wall, currently in fair condition. The Assessment makes three key management recommendations for the site:

1. Management of Dry Stone Wall – as a historical landscape feature associated with the former Chirnside pastoral empire at Werribee Park, preference should be given to retaining the DSW with the development plan if possible. However the wall is no longer afforded any statutory

protection as it has been delisted from the Victorian Heritage Inventory. The Wyndham planning scheme does however require a planning permit be obtained to demolish, remove or alter a DSW.

2. No requirement for further archaeological investigation – as there are no other known historical heritage sites or areas considered to have historical heritage likelihood there is no requirement for any further historical heritage investigations.
3. Contingency – There are no other known historical heritage issues in regard to the proposed development. If any historical heritage issues are encountered during the course of construction then works would cease within 10m of the area of concern and a qualified Cultural Heritage Advisor (or Heritage Victoria) should be contracted to investigate.

The dry stone wall that exists adjacent to Ballan Road will be retained and incorporated within the design of the road and median. The treatment of this dry stone wall has taken into account the recommendations of Wyndham’s Dry Stone Wall Strategy as appropriate.

### 4.3 Geology, Hydrogeology & Site Contamination

The Quandong Precinct is located on the Western Basalt Plains and as such is on a relatively flat grassy plain characterised by elasticity of soils, rocky outcrops and sub-surface rocks. The Lollypop Creek tributary bisects the Precinct creating a water course typical of the basalt plains, and the most notable geographical feature within the PSP.

To the south-east, the Precinct is abutted by existing and emerging residential development. To the west of the Precinct are rural properties that will, in the future, form the Western Grasslands Reserve. A clear division will eventually be provided between the Precinct and the Western Grasslands Reserve with the construction of the Outer Metropolitan Ring/ E6 Transport Corridor.

A preliminary site investigation was undertaken by Atma Environmental that included a review of the local geology and hydrogeology as well as physical features of the site and surrounding areas, a search of EPA databases, a review of historical images and an inspection of the site by qualified environmental scientists.

No industrial, mining or chemical/gas/wastes/liquid fuels storage (that is not ancillary to the main use), nor any land uses assessed as posing a high potential for contamination were identified to have been located at this site. The site inspection did identify areas requiring further investigation (such as filled and ancillary fuel storage areas) and areas of general above ground waste requiring removal.

In accordance with Ministerial Direction No. 1 “Potentially Contaminated Land” the site was not defined as ‘potentially contaminated’. An environmental audit was not recommended for any portion of the site. With reference to the Department of Sustainability and Environment General Practice Note “Potential Contaminating Land Uses” (June 2005) further assessment of site contamination is considered appropriate to ensure landowners are compliant with EPA guidelines and regulations in developing the land.

### 4.4 Surrounding Land Uses

#### 4.4.1 Brooklyn to Lara High Pressure Gas Transmission Pipeline and Wyndham Vale City Gas Gate

The Brooklyn to Lara Transmission Pipeline, owned and operated by APA under the AS2885 standard, runs just inside the north western boundary of the development. A city gate gas regulating station is located directly across Ballan Road from the Precinct, which is owned and operated by SP AusNet services.

These facilities are licenced under Victorian legislation and as such are required to comply with the Australian Standard AS2885 “Pipelines: gas and liquid petroleum”. One of the requirements of that standard is that the pipeline and the gate station have to have a documented Safety Management Study (SMS) and the SMS has to be reviewed whenever there is a change in the land usage around the facility. The change in land use from agricultural to urban residential triggered a review of the SMS for both the pipeline and the gate station.

A SMS review was conducted by CDC during 2015/2016. The review determined that development of the Quandong Precinct is not considered to significantly increase the threat level to the Brooklyn to Lara

gas pipeline and the Wyndham Vale gate station, nor do the pipeline and the gate station pose an unacceptable risk to the Quandong Precinct.

A number of risk management actions were identified for implementation concerning regulation of sensitive uses and design and construction in the vicinity of the gas pipeline and city gas gate. The Quandong PSP will reflect and implement these actions as relevant.

#### 4.4.2 Barro Group Quarry – Work Authority 43

Land at Argoona Road, Mambourin was been granted an extractive industry Work Authority 43 (WA43) under the Mineral Resources (Sustainable Development) Act 1990. Minimal extraction has occurred at the site to date. A 500 metre sensitive use buffer from the quarry property boundary intersects with a very small portion of the Quandong Precinct, which is reservation for the Outer Metropolitan Ring/E6 Transport Corridor. There are no implications for the planning of the residential area of the Precinct.

## 4.5 Catchments & Drainage

The drainage system within the Wyndham West growth front is dominated by the catchments of Lollypop Creek and its tributaries. The catchment of the Werribee River, which is the most substantial waterway in the area, only affects the northern parts of the Ballan Road and Westbrook precincts.

The wider area is generally characterised by shallow valleys partitioned by mild undulations. The valleys and associated drainage lines generally follow east-west or north-east to south-east orientations, with the higher land generally occurring in the eastern and north-eastern parts of the growth front.

Areas associated with the Werribee river catchment contain some ‘flood runner’ valleys which are more deeply incised and can convey significant water volumes at times.

Alluvium conducted an Assessment of Fluvial Geomorphology in 2012 as preparation for the design of the Quandong Development Services Scheme. It found that:

- All waterways in the study area are in intact, natural condition (from a geomorphic perspective) and worthy of protection from future urban flows. They are representative of their stream types in the broader Werribee River catchment.
- Two of the three stream types in the study area represented new River Styles® in Port Phillip and Westernport, and consequently had a high rarity value.
- Unmitigated urban flows from future development will significantly increase the peak two year average recurrence interval flow, which is considered to be geomorphically significant. Consequently there is a risk of increased channel erosion under these conditions.
- The risk of accelerated erosion is greatest in the upper and mid-catchment areas, where the bedrock extrusions are less prevalent than the downstream reaches in the study area.

The Alluvium assessment identified through the Quandong Precinct a stream type categorised as ‘Confined by Basalt’, and a river style categorised as ‘Confined valley setting (CVS) - basalt plain confined, clay on basalt boulders and outcrops’, and made the following recommendation for management:

- Maintain and protect the existing physical form of these waterways through water sensitive urban design and discharge of stormwater to the existing surface to maintain the existing flow regime and waterway form for the phase 2 development scenario. Stock exclusion and riparian buffers (through active revegetation or native regeneration) for the full width of the valley fill for all scenarios considered in this assessment.

## 4.6 Biodiversity

### 4.6.1 General

Biodiversity assessments of various parts of the Wyndham West area have been completed by Aecom, Biosis, the Regional Rail Link Authority and the Department of Sustainability and Environment. The scope of the assessments has included detailed field surveys of native vegetation and target surveys of flora species.

The Wyndham West area is located within the Victorian Volcanic Plains bioregion and the Port Phillip and Westernport catchment management authority areas. The Wyndham West area is characterised by flat to undulating plains with vast areas of open grasslands, small patches of open woodland and stony

risers. A number of minor, ephemeral creek lines bisect the area, with the Werribee River forming the northern boundary.

#### 4.6.2 Biodiversity Conservation Strategy for Melbourne's Growth Corridors

The Biodiversity Conservation Strategy for Melbourne's Growth Corridors (BCS) is intended to address issues of national environmental significance protected under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 and matters of State significance. The BCS identifies key conservation outcomes and guiding principles in the creation of conservation areas in Melbourne's Growth Corridors. It applies established biodiversity conservation principles to decision making processes, including:

- Small and medium habitat areas are important; supporting a diversity of habitat types, important populations of certain species, and habitat connectivity across a landscape
- Connectivity between habitat patches across a landscape is important; supporting metapopulations, the recolonisation of habitat patches after a disturbance, and breeding
- Buffer zones around habitat areas are important; supporting viable populations, reducing the impacts of adjacent land-uses and potentially enhancing habitat connectivity

As part of the BCS, three species specific Sub-Regional Strategies were prepared. Two of these, the Growling Grass Frog (GGF) Strategy and the Golden Sun Moth (GSM) Strategy are relevant for the Wyndham West area:

- The Growling Grass Frog Strategy identifies the Lollypop Creek and its tributaries as a habitat for the GGF which must be retained and protected.
- The Golden Sun Moth Strategy is implemented through the Biodiversity Conservation Strategy which identifies the Quandong Precinct as a Golden Sun Moth offset area.

The Quandong PSP accords with these guiding principles, ensuring that habitat connectivity is maintained along the Lollypop Creek tributary corridor, providing critical habitat for flora and fauna.

#### 4.6.3 BCS Conservation Area 13

The Biodiversity Conservation Strategy for Melbourne's Growth Corridors (BCS) establishes BCS Conservation Area 13 within the southern portion of the Quandong Precinct. BCS Conservation Area 13 has been assigned the management category of 'Nature Conservation'.

The BCS specifies that the key rationale for the protection of this area is to protect high quality native grassland that contains high persistence habitat for Golden Sun Moth within a practically manageable area.

The biodiversity values of national significance are:

- High quality Natural Temperate Grassland
- Golden Sun Moth population within high persistence habitat
- Habitat for Striped Legless Lizard (population not confirmed)

The biodiversity values of state significance:

- Western (Basalt) Plains Grasslands Community
- Golden Sun Moth
- Striped Legless Lizard habitat

The Quandong Precinct Structure Plan accords with the identified values and conservation objectives as identified within the BCS.

#### 4.6.4 Site Specific Assessment of the Quandong Precinct

A Biodiversity Assessment and Review of Biodiversity Strategy Offset were undertaken by Ecology and Heritage Partners. The scope of assessments has included field assessments during 2014 and a habitat hectare assessment in conjunction with the flora survey.

One state significant flora species (Slender Bindweed *Convolvulus angutissimus subsp. omnigracillis*) was recorded during the field assessment. There was also considered to be a low likelihood of occurrence of several State significant grassland species within Lot 8 (Small Scurf-pea *Cullen parvum*, Tough Scurf-pea *Cullen tenax* and Rye Beetle-grass *Tripogon loliformis*).



One nationally significant fauna species, the Golden Sun Moth *Synemon plana* was recorded in Lot 8 during the assessment. Suitable, albeit modified, habitat was identified within the study area for additional species of national conservation significance (Striped Legless Lizard *Delma impar*), state conservation significance (Eastern Great Egret *Ardea modesta*, Black Falcon *Falco subniger*, Red-chested Button-qual *Turnix pyrrhoroax*, Diamond Firetail *Stagnopleura guttate* and Tussock Skink *Pseudemia pagenstechaeri*) and regional conservation significance (Fat-tailed Dunnart *Smithopsis carssicaudata*).

One nationally listed ecological community was recorded within the study area (Natural Temperate Grassland of the Victorian Volcanic Plain).

#### 4.7 Arborist Report

The arborist report has been informed by a visual site inspection and assessment of the tree species identified during this inspection. The site inspection identified a high population of weed species, particularly African Boxthorn (*Lycium decussatum*) and various species of Thistle. The vegetation on site consists of a few scattered trees, planted windbreaks, semi-mature agro-forestry plantation and mixed native and exotic trees around the perimeter of the homesteads.

All trees present on the site are assumed to have been planted with the possible exception of an individual *Eucalyptus camaldulensis* (River Red Gum), located on the rear homestead perimeter of the Taleeho Riding School. Although indigenous to the area and possibly remnant, this tree is considered to be of Moderate Retention Value at best, due to its relatively small size and estimated age (<40 yrs). *E. camaldulensis* is a species which can live for several hundred years and the ecological and habitat value of this species is mostly realised when specimens are more mature and they have developed hollows which provide nesting sites for native animals and birds.

The majority of trees present are *Eucalyptus cladocalyx* (Sugar Gums). This species is non-indigenous and occurs naturally in a few small areas of South Australia; however it is extensively planted on roadsides and fence lines in west Victoria. Many of these trees have been coppiced or lopped, probably for the harvesting of timber for fencing or fuel. This is particularly evident in a large group of trees located to the rear of one of the homesteads.

A windbreak planting extends centrally for several hundred metres in an east-west direction. This consists of juvenile/semi-mature species including *Allocasuarina verticillata* (She-Oak), *Eucalyptus cladocalyx*, *E. polyanthemos* (Red Box), *E. sideroxylon* (Ironbark), *Melaleuca armillaris* (Bracelet Honey Myrtle) and some Mallee species (small multi-stemmed eucalypts).

On the northern side of the site, an agro-forestry plantation of several hundred *Eucalyptus globulus* (Blue Gum) is present; however these are immature. A small grove of *E. polyanthemos* is also present, also planted in formal rows.

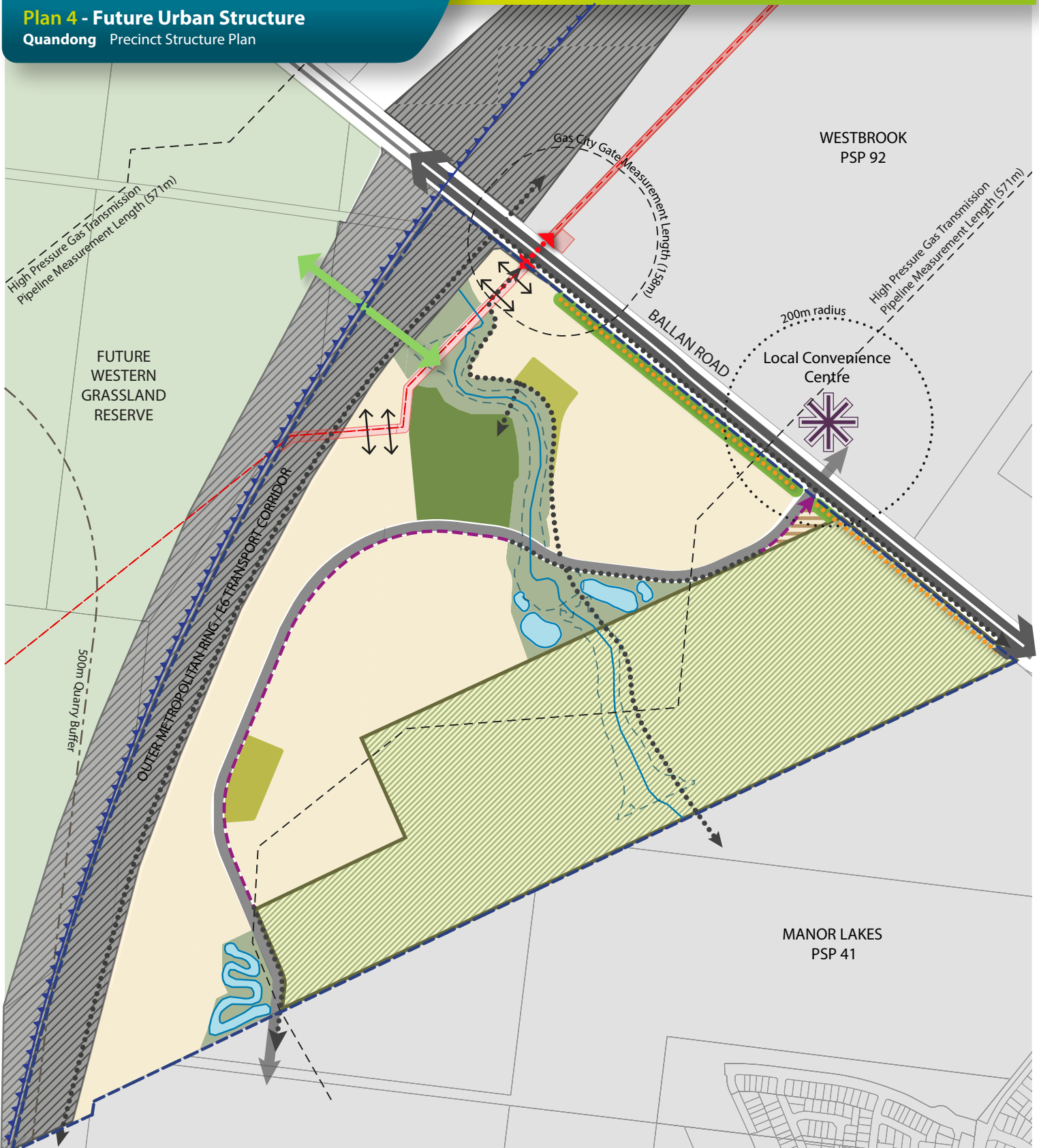
Plantings around the three homesteads consist of mixed native species and exotic species. All trees are considered to be of low retention value.

In summary, all of the trees present are considered to be of low retention value, with the exception of a single River Red Gum, located at the rear of the Taleeho Ring School, which is possibly remnant and is rated as Moderate Retention Value only. The remaining trees have all been planted, many relatively recently and consist mostly of non-indigenous species.



**Plan 4 - Future Urban Structure**

Quandong Precinct Structure Plan



	precinct boundary		waterway & drainage reserve (encumbered)		dry stone wall protection buffer
	urban growth boundary		landscape reserve (encumbered)		high pressure gas transmission pipeline & easement
	residential		grassland reserve		shared path
	BCS conservation area 13		future urban area		bicycle path within widened road reserve
	active open space		connector street		interim shared path crossing point
	passive open space		arterial road		potential pedestrian/cycling/environmental habitat connection to Western Grassland Reserve
	suitable for non-residential uses		modified 1 in 100 flood level		access - private driveway
	outer metropolitan ring / E6 transport corridor (OMR)		quarry buffer		

## 5 FUTURE DEVELOPMENT & COMMUNITY

### 5.1 Utilities

A servicing report was conducted by SMEC in 2015 for the property of 955 Ballan Road within the Quandong Precinct. The servicing infrastructure assessment indicates that upgrading and augmenting of some services will be required before full development of the Quandong Precinct can occur.

#### Drainage

Wyndham City Council is the responsible authority for minor local drainage whilst Melbourne Water is the responsible authority for the provision of major drainage facilities and regional drainage networks with catchments greater than 60 hectares.

Internal drainage works shall be constructed in accordance with Wyndham City Council's Engineering Design and Construction Standards, and this drainage infrastructure will predominantly discharge to the defined Melbourne Water main drains internal and/or external to the site.

Council requires that underground drainage be constructed within the development to cater for 1 in 5 year stormwater events. Storm events up to 1 in 100 year frequency within the site are accommodated within the road reserves or floodways where necessary, with all lots having at least 300mm freeboard above the 100 year flood levels in the road reserves and 600mm adjacent to Melbourne Water drainage assets.

#### Sewer & Water

City West Water (CWW) is the responsible authority for the provision of sewer and water supply facilities to service this site.

City West Water has confirmed the following:

- The system will have sufficient capacity to cater for the proposed development.
- The reimbursable works 300mm diameter sewer main running north-south through the site (as shown on CWW West Werribee Supply Zone map) will need to be constructed as part of this development.
- The 300mm diameter sewer main skirting the site to the south and east (as shown on CWW West Werribee Supply Zone map) will be constructed as part of the subdivision of adjacent properties, prior to this proposed development. As such, the connection for the 300mm diameter north-south main running through the site will be available.
- Similarly to the sewer, the reimbursable works Water & Recycled water main drains running through the site (as shown on CWW West Werribee Supply Zone map) will need to be constructed as part of this development.
- Potable and recycled water connection points to the existing large diameter mains running along the southern side of Ballan Road are available.

### Telecommunications

As of the 1st January 2011, National Broadband Network Co. (NBN) is responsible for the deployment of fibre infrastructure in broad-acre developments in excess of 100 lots that are within the NBN Co. long term footprint.

Should individual landholdings be developed with less than 100 lots, Telstra will be the responsible telecommunication authority.

It will be the responsibility of the developer to provide pit and pipe infrastructure (*NBN ready*) in new developments, however the developer may choose to use another fibre provider with NBN remaining the '*Infrastructure Provider of Last Resort*'.

Further to the above, the Federal Government is currently reviewing the fibre delivery process in new developments. The stated purpose of the proposed change in policy is to provide more competition to NBN in providing fibre in new developments.

If adopted, the main impacts to the developer will be as follows (if NBN is chosen as the service provider):

A new Deployment charge will apply on a per-lot basis:

- \$600 per lot for standard residential lots.
- \$400 per lot for medium density lots.

The developer will be required to contribute towards the cost of backhaul to bring fibre to the development. Where backhaul costs are up to \$1,000 per lot, the developer will be required to contribute up to 50% of this cost. Any costs higher than \$1,000 per lot for backhaul will be payable by the developer. NBN will not charge for backhaul if the length required is less than one kilometre from an existing NBN development or transit infrastructure. The developer will also continue to pay for the pit and pipe infrastructure.

In addition, the roles in relation to the areas that NBN will be the '*Infrastructure Provider of Last Resort*' are proposed to change. For new developments of fewer than 100 lots there will be instances where NBN will service these developments. The developer will also be free to choose any other telecommunication provider on a commercial basis, so long as the infrastructure provided meets NBN requirements.

Nonetheless, telecommunication services will ultimately be provided to the subject site and it will be the responsibility of the developer to provide pit and pipe infrastructure to ensure that the development is 'fibre ready'. Currently, there is no supply readily available to service the site; however, advice is that subdivision of adjacent properties will provide a suitable connection point.

### Electrical

AusNet Services is the responsible authority for the provision of electricity supply to service the proposed development. Electricity supply will be provided to the subdivision in accordance with the retailer's terms and conditions for residential land development.

As with communications, currently there is no supply readily available to service the site; however, advice is that subdivision of adjacent properties will provide a suitable connection point.

### Gas

APA Group is the principal authority responsible for the provision of gas reticulation to service the property. Supply can be readily provided to the development in accordance with the retailer's terms and conditions for residential land development.

The following existing gas services have been identified:

- 200mm high pressure gas main in Ballan Road

AusNet services have stated that the existing Ballan Road high pressure gas main has sufficient capacity for the proposed development.

## 5.2 Roads & Access

The site is well located for a variety of transport opportunities which provide access to the Wyndham area and wider metropolitan Melbourne. The site is situated adjacent to the future Outer Metropolitan Ring/E6 Transport Corridor (freeway and rail), and is within 3km of the Wyndham Vale Station on the Regional Rail Link.

The primary point of access to the site will be from Ballan Road. A new intersection will be constructed at the intersection of Ballan Road and the north-south connector. Ballan Road is a key arterial road within the area which provides direct access from the site to the centre of Werribee, and towards the north-west provides a connection to the Geelong-Bacchus Marsh Road.

### Key roads

Access to the site will be made available off Ballan Road at the eastern corner of the developable portion of the site, via the proposed north-south connector road. The 'interim' cross intersection design for the north-south connector shows a full turning movement dual carriageway tying into the existing Ballan Road. The north-south connector road will ultimately run into the Westbrook Precinct to the north-east and Manor Lakes Precinct to the south.

### Local roads

Wyndham City Council is the responsible authority for local road infrastructure within the subdivision. Internal road works shall be designed and constructed in accordance with Council requirements. It should be noted that Wyndham City Council has adopted the Victorian Planning Authority Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011) standards.

### Pedestrian and cycle network

When development is complete, the Wyndham West area will feature an extensive road and trail network to facilitate cycle and pedestrian movements, linking key destinations including schools, local town centres and public transport facilities. Commuter cycling, as well as recreational cycling and walking will be accommodated through a combination of on-road and off-road routes. A shared path along the gas easement, waterway corridor and through the BCS Conservation Area 13 will connect to the Westbrook Precinct to the north-east, and Manor Lakes Precinct to the south, providing direct access to further open space reserves, schools and the Ison Road Local Town Centre. A shared path and on-road cycling lanes along Ballan Road will provide direct access to the Manor Lakes Town Centre. Another shared path will extend along the OMR reservation when built, providing a regional trail linking the Wyndham West area to other parts of the municipality and beyond.

### Public Transport

The north-south connector road through the Quandong Precinct will be bus capable and designed to PTV requirements. This will enable the majority of residents to be within 400m of a bus route. It will allow PTV to provide local bus services utilising the extensive bus capable connector road network in the Wyndham West area, connecting Quandong to key local and regional destinations, including schools, local town centres, the Manor Lakes Major Town Centre and Wyndham Vale Station, located approximately 3km away.

## 5.3 Open Space

### Design Vision and Principles

Quandong PSP is envisioned as a vibrant residential area where a key feature is engagement with the landscape. This vision will be achieved through the use of extensive landscaping treatment and the provision of large open space areas. Connectivity within an integrated open space network is a fundamental part of the overall open space strategy for the site, achieved by maintaining a green corridor through the site that provides connections between each element within the broader PSP area. These separate elements include the central Active Open Space area, local parks and the connections along the existing creek corridor and between the various elements of open space.

The following design principles underpin the Quandong PSP:

- A walkable neighbourhood
- An extensive nature trail connecting neighbourhoods and linking with the off-road trail network

- Internal green views and external views to the conservation reserve
- Hierarchy of spaces with a key community park at the heart
- Sense of open landscape, borrowed from the conservation reserve
- Connection to off-road walking & cycling trails
- Streets that frame views of surrounding natural elements, including the conservation reserve and the creek corridor

The Quandong PSP will provide, in accordance with Council policy, 3% passive open space in addition to 7% active open space. In accordance the Wyndham West Development Contributions Plan a minimum 4.5Ha active open space reserve is required to be provided central to the PSP area adjoining Lollypop Creek tributary. Two Local Parks will be provided, one east of the Lollypop Creek tributary and one in the south west of the residential component of the PSP, at locations central to residential neighbourhoods.

Open space in the Precinct will primarily be arranged along a central spine, integrating the active open space reserve and a passive open space reserve with the waterway corridor, associated stormwater treatment assets and the BCS Conservation Area 13. This colocation will enhance the sense of open landscape. A shared path will extend along the waterway corridor connecting the open space with the Precinct and facilitating access to the waterway corridor and Active Open Space area in the Manor Lakes Precinct to the south.

#### **Active Open Space**

The 4.52 hectare district level Active Open Space reserve will be provided within the Quandong Precinct adjacent to the waterway corridor and connector street. Its size and orientation will facilitate two soccer pitches, or one Australian Rules Football/cricket pitch. The Wyndham West Development Contributions Plan funds the purchase of the land and contributes towards the provision of a pavilion within the Active Open Space reserve.

#### **Passive Open Space**

The 0.76ha Local Passive Open Space area will be located adjacent to the eastern side of the waterway, servicing the eastern neighbourhood of the Precinct. Located directly opposite the Active Open Space reserve, a shared path crossing the waterway will link the two together. A larger district level passive open space of 1.18 ha will be located adjoining the connector street in the south-west portion of the residential area of the Precinct.

## **5.4 Community facilities and education**

The Wyndham West DCP outlines community infrastructure ratios for schools and community centres across the whole of the Wyndham West area. Due to the Quandong Precinct's relatively small predicted population, the DCP determined that the future residents be included in the catchments of schools and community infrastructure in adjoining precincts. The Quandong area will be well serviced by planned community and education services in adjoining PSP areas. As outlined in *Section 3 - Local Context*, the Quandong Precinct is within 2km of two government primary schools planned for the Manor Lakes Precinct to the south, and one government primary school and a non-government P-12 school planned for the Westbrook Precinct to the north-east. Kindergartens, and in some cases community learning centres, are planned to be colocated with each of the government schools.

Existing community facilities located within 3km of the Precinct at Manor Lakes include the Manor Lakes P-12 College, Our Lady of the Southern Cross Catholic Primary School, Wyndham Vale Montessori Centre, Wyndham Vale Kindergarten, Wyndham Vale Library and the Wyndham Vale Community Learning Centre. The Wyndham West area also includes kindergartens at Iramoo and Vista Way and government primary schools at Wyndham Vale and Iramoo.

The Wyndham West area will have sufficient population and is sufficiently distant from existing urban communities to warrant a significant quantity and diversity of community infrastructure. Most of this infrastructure is/will be located within eight main community infrastructure hubs based around the future town centres or colocated with schools. Indoor recreation facilities, arts and cultural facilities, justice and emergency services, and residential aged care services are planned/may also be required.

## 5.5 Retail and Employment

A network of existing and planned town centres will service the Quandong area in the future. As identified in *Section 3 - Local Context*, future centres that will most conveniently service residents of the Quandong Precinct, include:

- Ballan Road Local Convenience Centre, located 100m to the north of the Precinct;
- Westbrook Local Town Centre, located 1.1km to the north-east of the Precinct;
- Ison Road Local Town Centre, located 1.5km to the south-east of the Precinct;
- Black Forest Road North, a Major Activity Centre, located 3.7km to the south-east of the Precinct

The existing centres (including those currently under development) of most relevance, include:

- Manor Lakes Major Town Centre, a Major Activity Centre with stage one completed, located 1.8km south-east of the Precinct;
- Werribee City Centre, a Principal Activity Centre, located 7.3km south-east of the Precinct; and
- Pacific Werribee Shopping Centre (Werribee Plaza) , a Major Activity Centre, located 9km to the east of the Precinct

The Wyndham West area will also be served by three significant proposed employment precincts, being:

- The Wyndham North Employment Area along Boundary Road to the north of the Precinct, is planned to be developed as a major employment area to support the proposed Western Intermodal Freight Terminal; and
- The East Werribee Employment Precinct (EWEP) located to the south-east of the Quandong Precinct will build on the current employment opportunities provided by the Mercy Hospital, Victoria University and the Melbourne University Veterinary School to provide 50,000 jobs.
- The Bayview, Mambourin East and Werribee Junction precincts (PSPs yet to be planned) to the south of the Quandong Precinct will provide business and industrial zoned land to create significant job opportunities.

## 5.6 Housing

When fully developed, the Quandong Precinct will accommodate around 1063 dwellings based on an average density of 16.5 dwellings per hectare. At an average of 2.8 persons per dwelling, it is estimated that the Quandong Precinct will become home to approximately 2,976 residents.

It is expected that the Precinct will provide a range of lot sizes that will enable a diversity of dwelling types and sizes. Homes will cater for a range of life stages and age groups. Higher amenity areas such as those adjacent to open space, the waterway corridor and public transport facilities will provide the opportunity for medium and higher density residential development. The provision of some larger than standard lots will also enable a diversity of housing to be achieved.

## 5.7 Infrastructure Funding

### Wyndham West Development Contributions Plan

The Wyndham West Development Contributions Plan (the DCP) applies to seven PSP areas within the Wyndham West area, including the Quandong PSP. The DCP plans for the transport, community and recreation needs of the whole of the integrated Wyndham West area. The DCP was prepared and adopted before planning for the Quandong PSP commenced, and made reasonable assumptions for required infrastructure based on typical dwelling yields and population ratios.

The Wyndham West DCP includes the following infrastructure projects within the Quandong Precinct:

- AR26: The Quandong Active Recreation Reserve 13; concerning the purchase of land for an active recreation reserve and construction of sporting surfaces.
- AR27: The Quandong Active Recreation Reserve 13; concerning the provision of funding towards the construction of a sports pavilion in the reserve.
- IN29: The purchase of land for an intersection (ultimate) and construction of an arterial-to-connector signalised 4-way intersection (interim treatment).

## 6

## SUPPORTING INFORMATION

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*Aboriginal Cultural Heritage Management Plan Number 13322* (Ecology & Heritage Partners, Draft May 2015)

*AS2885 Safety Management Study, Quandong Precinct Structure Plan* (OSD, 7th December 2015)

*Assessment of Fluvial Geomorphology, Quandong Development Services Scheme Study Area* (Alluvium, November 2012)

*Biodiversity Assessment and Review of Biodiversity Conservation Strategy Offset, 955 Ballan Road, Wyndham Vale* (Ecology & Heritage Partners, April 2015)

*Biodiversity Conservation Strategy for Melbourne's Growth Areas* (DEPI, June 2013)

*Historical Heritage Assessment HV Number 4553* (Ecology & Heritage Partners, March 2015)

*Manor Lakes Precinct Structure Plan* (GAA, March 2012)

*Preliminary Site Investigation: Quandong Park PSP, Wyndham Vale* (ATMA Environmental, December 2014)

*Quandong Park DSS 7730 Proposed Scheme Works Plan* (Melbourne Water, May 2014)

*Servicing Report, 955 Ballan Road, Wyndham Vale* (SMEC, February 2015)

*Summary Arboriculture Assessment Report, Ballan Road Triangle* (DB Horticulture Pty Ltd, March 2015)

*Westbrook Precinct Structure Plan* (MPA, June 2014)

*Wyndham Dry Stone Walls Study* (Biosis, Draft February 2015)

*Wyndham West Development Contributions Plan* (MPA, April 2014)