1074 & 1075

Sunbury South & Lancefield Road

Precinct Structure Plan

Background Report

November 2016

Victorian Planning Authority

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1 INTRODUCTION

The Victorian Planning Authority (VPA), in consultation with the City of Hume and state government agencies, has prepared Precinct Structure Plans (PSPs) for Sunbury South and Lancefield Road. A PSP is a high level plan that sets the vision for developing new communities and is the primary plan for guiding urban development in the growth areas of Melbourne.

The two precincts are included in the *Sunbury/Diggers Rest Growth Corridor Plan (2012)* which is a high level integrated land use and transport plan that provides a strategy for long term development in this corridor of Melbourne. It identifies broad transport networks, industrial and employment zones, residential areas, recreation precincts as well as land to be set aside for biodiversity conservation purposes.

The area will undergo a transformation as a result of large scale residential and associated employment development resulting in considerable population increase and demographic change. This will be balanced with protecting biodiversity, landscape and cultural heritage values along Jacksons and Emu Creeks.

The VPA has commissioned a number of background technical studies to inform the future urban structure of the two precincts. The purpose of this document is to provide a summary of the findings of these studies and to highlight issues and opportunities that have shaped the subsequent plans.

2 POLICY CONTEXT

Sunbury has been identified for growth since the late 1960s. At a 1969 national conference of the Australian Institute of Urban Studies, the then Minister for Local Government – Rupert Hamer – identified Sunbury as a satellite city to make urban life more “pleasant and personalised”.

Satellite cities such as Sunbury were anticipated to provide economic, social and cultural opportunities, essentially allowing them to be self-sufficient communities with little reliance on the major metropolitan city.

Through successive strategic plans for metropolitan Melbourne since this time, Sunbury has been identified as a key location for ‘contained growth’.

2.1 PLAN MELBOURNE

Plan Melbourne 2014 is the current planning policy for metropolitan Melbourne until Plan Melbourne 2016 is released. The strategy sets a vision for Melbourne as well as a list of actions required to achieve the vision. It identifies 7 main outcomes it aims to achieve which include:

- Delivering jobs and investment;
- Housing choice and affordability;
- A more connected Melbourne;
- Liveable communities and neighbourhoods;
- Environment and water;
- A state of cities; and
- Implementation: Delivering better governance.

Both Sunbury South and Lancefield Road PSPs respond to these key outcomes, in particular to the following outcomes:

- *Delivering jobs and investment*: by providing land for employment, commercial and industrial uses
- *Housing choice and affordability*: by unlocking land supply
- *A more connected Melbourne*: by encouraging higher residential densities in proximity to future potential railway stations and providing for a road, pedestrian and cycling network that enables an effective bus services to be delivered as well as providing a safe place for active transportation
- *Liveable communities and neighbourhoods*: by providing convenient an often walkable access to local open space, sporting fields, community services and retail needs as well as increasing the critical mass of the Sunbury so as to improve the retail and community services offer of the Sunbury Activity Centre
- *Environment and water*: by protecting biodiversity values (flora and fauna) predominantly identified along Jacksons and Emu Creeks, preserving natural water flow levels into existing waterways and reducing reliance on water storages by making provision for recycled water and stormwater harvesting

2.2 SUNBURY/DIGGERS REST GROWTH CORRIDOR PLAN

The *Sunbury/Diggers Rest Growth Corridor Plan* was developed by the Growth Areas Authority (now the Victorian Planning Authority) in June 2012. This is a high level integrated land use and transport plan which provides a strategy designed to guide the preparation of PSPs that are required to accommodate growth in the corridor over the next 30-40 years.

The plan broadly identifies transport networks, industrial and employment zones, residential areas and recreation precincts which address the 8 growth corridor planning principles identified to manage and provide for the anticipated population. These are:

- Create diverse and vibrant new urban communities – focusing on town centres, health, community and education facilities;
- Integrate Transport and Land Use Planning – integrated transport network, location of higher density land uses and creating complementary walking and cycling networks;
- Plan for local employment creation;
- Create new suburbs with high amenity and character;
- Protect biodiversity, waterways and cultural heritage values;
- Create integrated open space networks;
- Plan for environmental sustainability; and
- Stage development to ensure the efficient and orderly provision of infrastructure and services.

Both PSPs have been prepared to implement the high-level elements of the Sunbury/Diggers Rest Growth Corridor Plan subject to further testing and refinement through the PSP preparation process.

2.3 SUNBURY HIGAP

Developed by Hume City Council in 2011, the *Sunbury Hume Integrated Growth Area Plan* (HIGAP) is Council's strategic planning strategy for Sunbury to 2040 and beyond.

This project was developed to ensure successful orderly planning and development of the Sunbury region following the introduction of the area into the Urban Growth Boundary in August 2010. HIGAP comprises two documents - the *Spatial Strategy*, which establishes that broad strategic vision for the Sunbury growth areas, and the *Delivery and Infrastructure Strategy*, which outlines implementation strategies and infrastructure requirements and responsibilities.

The Sunbury HIGAP strategy has been informed by a number of technical reports and discussion papers including a preferred options paper, detailed options paper and emerging options paper. Extensive community input was also sought as part of this process.

HIGAP has formed the basis of Hume City Council's engagement with the VPA and has assisted with negotiating the best outcomes in the preparation of the two PSPs. The urban structure and key infrastructure within the two PSPs is broadly consistent with the vision established by HIGAP.

3 LOCAL CONTEXT

Both the Sunbury South and Lancefield Road precincts are located within the Western Volcanic Plains geographic region which encompasses land stretching from Victoria's south west border with South Australia across to Melbourne's north and north western suburbs.

3.1 PRECINCT FEATURES

Sunbury is characterised by basalt plains which vary in their elevation, escarpments and valleys formed by drainage lines, stony rises and ephemeral lakes or soaks.

A number of extinct volcanic cones are evident however the region is characterised by two particularly distinct landforms: undulating plains and incised valleys. Both precincts are located over and between the valleys of Jacksons and Emu Creeks. These have formed over time as the creeks have eroded, resulting in a number of deep V or U shaped gorges with striking escarpments below elevated plateaus.

3.1.1 Lot Size and Ownership Pattern

The Sunbury South PSP applies to approximately 1798hectares of total land while the Lancefield Road PSP area comprises of approximately 1095hectares of total land identified for future urban development. Of this there is a combined total of approximately 1,314 hectares of net developable area across the two precincts.

The Sunbury South precinct comprises of 99 properties whilst there is only 65 in Lancefield Road. Lot sizes range from 0.036 hectares (Property 78 – Sunbury South Precinct) to 247.22 hectares (Property 2 – Lancefield Road Precinct) across the two precincts.

3.1.2 Topography, Geology and Waterways

The two precincts have been very much designed to enhance Sunbury's distinctive regional landscape values. Given that it is these which individually characterise the region, focus has been placed on these elements through the development of the plans to take advantage of these significant and unique landscape opportunities.

The corridors of the Jacksons and Emu Creeks are surrounded by escarpments varying in size below various plateaus defined by a break of slope. Where evident, these have been translated onto the plans throughout the PSP in order to guide the setback of development, preserve views of these areas and provide passive recreation opportunities through the inclusion of trails along the tops of the escarpments.

Redstone Hill is an attractive visual feature located within the Sunbury South precinct. Both the Sunbury/Diggers Rest Growth Corridor Plan and the Hume HIGAP report identify that views of this feature are to be protected. Road design has been aligned to enable visual connections to Redstone Hill and a landscape connection will be retained between Redstone Hill and Jacksons Creek.

Further, the Sunbury South PSP and associated statutory documents have had controls built into them in to control building heights surrounding Redstone Hill to protect the existing views to the city and back towards Jacksons Hill from the peak of Redstone Hill.

Similarly, other controls have been developed in relation to development on land with an average slope of greater 10% and will apply to general residential development areas throughout the precincts. These controls have been developed to protect the visual impact on the landscape by reducing visual scaring resulting from earth works associated with cut and fill.

A number of residential concept plans have also been developed and included in the PSPs which relate specifically to undulating land form particularly evident south of Jacksons Hill and east of Lancefield Road within the Sunbury South precinct. These have been developed due to the significant slope evident in these areas and the existing fragmentation of landholdings in order to provide a greater level of detail to inform future subdivision in these areas in order to protect and retain the qualities of this environment.

In addition to the hills and the incised creeks which characterise the region, a number of plateaus feature throughout the region. Of specific note is that which forms a portion of a property within the Sunbury South precinct on the east bank of Jacksons Creek, south of Sunbury Road. Whereas development will generally be defined by a clear break of slope throughout the precinct, this land is an anomaly and will support development below a 'top' break of slope, on a plateau by the creek

3.1.3 Native Vegetation and Water

The *Biodiversity Conservation Strategy* (BCS), as prepared by the Department of Environment, Land, Water and Planning, identifies 4 conservation areas across the Sunbury South and Lancefield Road PSP's collectively. Each conservation area focuses on specific categories of National and/or State biodiversity significance unique to the area.

Relevant conservation areas include 18, 19, 20 and 21 as specific to the North Western Growth Corridor (Sunbury-Diggers Rest).

Conservation Area 18 is located within the Lancefield Road Precinct, 75.94ha to the east and 177ha to the west of the Melbourne-Lancefield Road (the conservation area extends further north into the future Sunbury North precinct). Its biodiversity values of national significance include Grassy

Eucalypt Woodland, potential Grey Box Grassing Woodlands and Derived Native Grasslands of South Eastern Australia and High quality habitat for Growling Grass Frog. In addition, this conservation area consists of Growling Grass Frog habitat and Melbourne Yellow-gum biodiversity values of state significance. The BCS flags the potential for the boundary of this conservation area to be reviewed, subject to additional surveys across the conservation area. It is anticipated that such review will occur prior to the finalisation of the Lancefield Road PSP, and the outcomes of this review will be reflected within the PSP when approved.

There is a 2.44ha pocket of land located to the south of Lancefield Road within the Lancefield Road PSP which is classified as conservation land – Area 19. The biodiversity values of this site are Grassy Eucalypt Woodland. The purpose of this conservation area is to contribute to the target of protecting 80% of Grassy Eucalypt Woodland within the 2010 Urban Growth Boundary.

Adjoining Racecourse Road within the Sunbury South PSP is a 42.07ha piece of land identified as Conservation Area 20. The biodiversity value of this area is Melbourne Yellow-gum which is of state significance.

Conservation Area 21 covers 666.83 hectares of land along a large majority of Jacksons and Emu Creeks across both the Sunbury South and Lancefield Road PSPs (as well as the future Sunbury North precinct). The biodiversity value of national significance of area 21 is Growling Grass Frog populations within high quality habitat. This conservation area aims to ensure functioning of sustainable populations of the Growling Grass Frog providing connectivity between populations.

The identification of the above conservation land within the PSP's has triggered the need for the development of Conservation Area Concept Plans (CACP's). These plans have been developed and included in each relevant PSP to ensure protection and appropriate management of these areas and the biodiversity values which they aim to protect. Additionally, the relevant statutory controls have been implemented as part of the amendment.

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3.1.5 Further Assessment of Northern Jacksons Creek Crossing

The preferred road alignment for the crossing of Jacksons Creek within the Lancefield Road PSP (see Section 4.5) runs through culturally sensitive land and down a culturally significant gully. Therefore in 2016 the VPA engaged with the Wurundjeri to identify a future alignment avoid a requirement for significant fill on the eastern side of the creek, preserves pedestrian and cycling connectivity under the bridge (especially where it is in close proximity to the creek) and generally avoids areas of known cultural sensitivity. Further engagement will be required with the Wurundjeri when the bridge is being designed ahead of construction in relation to both design requirements and bridge naming.

3.1.6 Post-Contact Heritage

Context Pty. Ltd. was commissioned by the Victorian Planning Authority in September 2013 to conduct a post-contact heritage assessment of the Lancefield Road and Sunbury South Precincts.

The purpose of this assessment was to identify any post-contact (non-Indigenous) cultural heritage sites within the precincts in order to inform land use planning of the PSPs.

The following is a list of Heritage properties as found within the precincts along with their applicable level of significance:

Name	Vic Heritage Register	Hume Heritage Overlay	National Trust	VHI	HERMES	Hume Heritage Study	Other Study
Sunbury South Precinct							
Craiglee Winery	Yes	Yes	Yes	Yes	Yes		
House (former Leyden), 670 Sunbury Road, Bulla		Yes		Yes	Yes		
Former Rankin Farmhouse, Redstone Hill Road, Sunbury	Yes	Yes		Yes	Yes		
Former Constitution Hotel, 675 Sunbury Road, Sunbury		Yes		Yes	Yes		
Gellies Road Bridge		Yes		Yes	Yes		
Ben Eadie Mill, Harker Street, Sunbury		Yes		Yes	Yes		
House (Ben Eadie), Brook Street, corner of Sunbury Road, Sunbury		Yes		Yes	Yes		
Sunbury Road bridge over Jacksons Creek, Sunbury		Yes		Yes	Yes		
Asylum Water Supply, Jacksons Creek, Sunbury	Yes	Yes		Yes	Yes		
Craiglee, 785 Sunbury Road, Sunbury		Yes		Yes	Yes		
Pottery Dump				Yes	Yes		
Caloola 1 Dump				Yes	Yes		
Eighnane Ruins				Yes	Yes		
Cottage on Redstone Hill Road, Sunbury			Yes		Yes		
Redstone Hill Precinct, Red Stone Hill, Sunbury					Yes		

Possible early ford site						Yes	
'*Shaw*' or '*Baty*' property						Yes	
Jacksons Outstation						Yes	
Monmouthshire hotel site						Yes	
Bluestone quarry						Yes	
Site of Allison's brickworks?						Yes	
'*Page*' property						Yes	
Track and avenue of trees - Holden Flora and Fauna Reserve							Yes
Dry Stone Wall – Holden Flora and Fauna Reserve							Yes
Jacksons Creek, Sunbury							Yes
Melbourne to Echuca Railway							Yes
'Waterways'							Yes
Redstone Hill – Early Pastoral and Mining Precinct							Yes
Gold Mine Ruins Tracks 1830 (South-west of Redstone Hill)' (in the 'Redstone Hill – Early Pastoral and Mining Precinct' – see above)							Yes
Lancefield Road Precinct							
Jacksons Creek Rail Bridge	Yes	Yes			Yes		
'Goondannah' 340 Lancefield Road, Sunbury (the designated area for this place is within the Study Area but the historic homestead actually lies outside the Precinct		Yes			Yes		
Cannon Gully' Sunbury Volunteer Military Exercise Site		Yes		Yes	Yes		
Beer Homestead – Dairy Complex Remains				Yes	Yes		
Beer Homestead - Farm Complex - (This is part of the site recorded just outside the Precinct on the Heritage Overlay as the 'Former (O'Brien's) Stone Stream Farm' HO325				Yes	Yes		
Jacksons Creek Irrigation Works, Sunbury, upstream side of The Nook					Yes		
Hut (site of) - 170 Lancefield Road						Yes	
Jacksons Creek, Sunbury							Yes
Melbourne to Echuca Railway							Yes
'Waterways'							Yes

Details of the heritage significance of these properties can be found in the above noted report, which provided the following broad recommendations in relation to post contact heritage values in the two precincts:

The settings of nearby heritage properties
Any future development proposed within the existing Heritage Overlay will need to have regard for the requirements of the existing overlay, as well as the requirements of the relevant PSP to ensure that it is in keeping with the intentions of development within the precinct whilst also not adversely impacting on the setting of these places as per the requirements of Clause 15.03-1 of the Hume Planning Scheme.

Construction of a road crossing of Jacksons Creek – Lancefield Road Precinct
Construction of a crossing at the location proposed the Context report has noted, would impact on the area of the 'Cannon Gully' Sunbury Volunteer Military Exercise Site. This site has been included on the VHI on the basis of its archaeological potential (VHI H7822-2291). To minimise this impact:

- The design and construction of this crossing should itself be informed by more detailed historical research to attempt to better determine the area over which the exercises extended and the activities which they entailed – and thus the potential for archaeological deposits to exist within the various areas.
- A more detailed survey of the construction footprint should be undertaken in advance of any construction works to determine the extent to which significant post-contact heritage will be impacted, and that appropriate measures are taken to mitigate adverse impacts.
- The area currently included on the Heritage Overlay (HO366) should be retained as open space in order to protect the distinctive landscape features which contributed to its use As a result, this area would be bypassed by the construction of a crossing in the area shown, but in the event that the route deviates to impact upon the HO area, the further works described above should be expanded in recognition of the place's local significance in discussion with the City of Hume Council and Heritage Victoria.
- An assessment of the 'Cannon Gully' landscape should be included in any wider landscape assessment, and appropriate mitigation undertaken to reflect its significant landscape features – i.e. the alluvial flats employed as the 'battlefield', the steep escarpment and zigzag track and the elevated observation point.

Cultural landscapes
Development within and adjacent to the four cultural landscapes identified in the report respond to the cultural values through appropriate and sensitive design.

Due consideration needs to be given to the way in which development will impact on views into and out of the cultural landscapes. A key part of the experience of a cultural landscape is the sense of place. The development of the PSP has seriously considered this recommendation, with the design of the structure of the plans developed placing emphasis on the protection of view lines throughout both precincts.

3.1.7 Land Contamination

The VPA commissioned Environmental Earth Sciences in 2013 to undertake a land capability assessment for the Sunbury South PSP and the Lancefield Road PSP. Separate reports for each precinct were completed in July 2015.

The objective of these studies was to identify the potential for contamination within both precinct areas, and to identify any issues or considerations for the future urban development of the study area in regard to hydrology, groundwater and geology.

Of the properties within the Lancefield Road Precinct, four properties (170, 280 and 295 Lancefield Road) were classified as having as having a 'moderate' potential contamination risk due to activities associated with past or present agricultural activities.

The report noted that this was due to the possible storage of fuels, solvents and agricultural chemicals and/or the maintenance of machinery and equipment. An additional property (275 Lancefield Road) was also rated as 'moderate' due to the presence of stockpiled soil that appeared to be sourced from onsite (the source of these stockpiles requires verification).

The remaining properties with the Lancefield Road Precinct were rated by the report as a 'low' potential for contamination as no potential contaminating activities were observed during a site inspection. A temporary storage of di-ammonium phosphate fertiliser was observed within the Villawood Salesian development (Allotment. 5 Section 8, Parish of Bollinda); however, it was not considered to represent a risk to human health or the environment. The assessments of potential risk were made in accordance with the Victoria Department of Sustainability and Environment, Potentially Contaminated Land, General Practice Note, 2005.

Of the properties within the Sunbury South Precinct, two properties (670 and 675 Sunbury Road) were classified as having 'high' potential contamination risk due to the presence of asbestos containing materials, a sheep dip and the storage of fuels, solvents and agricultural chemicals. An additional property (40 Redstone Hill Road) had part of the site rated as 'high' due to the presence of former mining activities and open shafts. These activities were located within the portion of the rural conservation zone and but not within the proposed developable area.

A further ten properties were classified as having a 'moderate' risk due to activities associated with past or present agricultural activities. The remaining properties have been rated as having a 'low' potential for contamination risk.

Properties classified with 'moderate' or 'high' potential contamination risk are recommended for further works or environmental assessment as detailed within both reports. Further assessment of these sites should be undertaken in accordance with the relevant guidelines and standards as outlined in the report.

3.1.8 Adjacent Land Uses

Existing Residential Development

The development of the Sunbury South and Lancefield Road PSPs is unique in that these precincts adjoin already existing residential developments. Located on the eastern fringe of the existing Sunbury township, the existing residential estate of Goonawarra sits to the north of the Sunbury South precinct and the south of the Lancefield Road precinct linking the two. Similarly, the Jacksons Hill estate and the existing Sunbury town centre sit to the north west of the Sunbury South Precinct.

Of particular note is the former Victoria University campus located predominantly within the centre of the Jacksons Hill residential estate. This site adjoins the Sunbury recycled water plant to the east.

Sunbury Recycled Water Plant

The Sunbury Recycled Water Plant operated by Western Water is located on the western side of Jacksons Creek and adjoins the Jacksons Hill residential development to the west. The plant is to be upgraded by the Victorian State Government, due to be completed in early 2018.

Hi-Quality Group Quarry and Landfill

The High Quality Group's Bulla quarry, landfill and organic waste processing facility forms 104 hectares of the Sunbury South precinct to the north east of Sunbury Road. Emu Creek bounds the site to the east while the proposed industrial precinct of the PSP sits to its south, adjoining Sunbury Road.

The proposal to continue the use of this land in the current form is in keeping with the intention of the Sunbury/Diggers Rest Growth Corridor Plan.

4 FUTURE DEVELOPMENT AND COMMUNITY

4.1 CENTRES AND EMPLOYMENT

The VPA engaged Hill PDA to undertake a retail and economic assessment for the Sunbury South and Lancefield Road PSPs. The purpose of this assessment was to:

- Establish the required retail floor space and employment floor space potential within both PSPs;
- Recommend the preferred location for retail centre/s and other job creating land uses;
- Recommend the floor space required for major, local and local convenience town centres;
- Identify the types of retail and commercial (office) uses that would be accommodated in the town centres (Including the proposed precinct on Vineyard Road in Sunbury South); and
- Recommend land areas for employment uses.

The PDA report recommended the following economic plans built on a retail thresholds model developed for Sunbury based on a nominal "full development" population capacity estimate.

These are designed to fit the overall Greater Sunbury economic structure as detailed in the report.

<u>Sunbury South Economic Plan</u>

- *Potential Sunbury South Sub-Regional Activity Centre* – located on the west side of Sunbury Road with a total floor area of 41,000-80,000m^2 to include a combination of 1-2 discount department stores, 2-3 supermarkets, 3-4 mini majors, 40-80 specialty stores, office space, community services, major bulky goods (subject to demand) and showroom space (Subject to demand).
- *Potential Sunbury South Neighbourhood Activity Centre* – located on the east side of the rail line in the growth area with a total floor area of 6,000-10,000m^2 to include 1 full-line supermarket, 1 mini major, 20 specialty stores, office space and community services.
- *Proposed Sunbury South Employment Area* – as shown in the Growth Corridor Plan on the east side of Sunbury Road; with a total floor area of 400,000m^2 to include a potential convenience store, industrial space, major bulky goods and showroom space (potentially on the Sunbury Road frontage) and office space (subject to demand),

- *Potential Bulky Goods* - potentially on both the Sunbury Road and Vineyard Road corridors with a total floor area of 48,000m^2 to include a potential convenience store, major bulky good space, office space (subject to demand), industrial space and showroom space (both subject to demand);
- *Potential Showroom / Motor Vehicle Uses* – potentially on both the Sunbury Road and Vineyard Road corridors with a total floor area of 36,000m^2 to include a potential convenience store and showroom space as well as major bulky goods space (subject to demand), office space (subject to demand) and industrial space (subject to demand);
- *Local Shop Nodes* – potentially 4 nodes located in gaps of the activity centre system outside of the 1 kilometre zone of planned centres with a total floor area of 1,500m^2 each to include 1 grocery store or small supermarket and office space and community services (both subject to demand) ; and
- *Other Activities* - such as schools, child care facilities and other services with a total floor area of 3,000-3,700m^2 to include non-centre based education and other community services.

Lancefield Road PSP Economic Plan

- Potential Lancefield Road Sub –Regional Activity Centre – located on the west side of Lancefield Road between the Lancefield Road frontage connecting to a rail station with a total floor area of 32,000m^2 to 63,000m^2 to include 1-2 discount department stores, 2-3 supermarkets, 3-4 mini-majors, 40-80 specialty stores, office space, community services and major bulky goods and showroom space (both subject to demand);
- Potential Lancefield Road Neighbourhood Activity Centre – located on the east side of Lancefield Road with a total floor area of 6,000m^2 to 10,000m^2 to include 1 full-line supermarket, 1 mini major and 20 specialty stores as well as office space and community services;
- Local Shop Nodes – potentially 1 node located in a gap of the activity centre system outside of the 1 kilometre zone of planned centres with a total floor area of 1,800m^2 to include 1 grocery store or small supermarket, a maximum of 10 specialty stores, office space and community services (both subject to demand);
- Other Activities - such as schools, child care facilities and other services with a total floor area of 600m^2 to 13,00m^2 to include non-centres based education and other community services.

The PSPs have generally reflected the activity centre hierarchy as recommended by Hill PDA. However, some floor space provisions have been amended to ensure the logical role out of the proposed centres ensuring the precincts are not flooded immaturely with commercial development.

The following is a description of centres and employment precincts proposed within the PSPs which has been informed by the above assessment, the Hume HIGAP strategy, as well as the Sunbury/Diggers Rest Growth Corridor Plan.

4.1.1 Sunbury Principal Town Centre

The existing Sunbury town centre is the pre-eminent regional retail, commercial and services heart of Sunbury as it exists today. Both the Sunbury/Diggers Rest Growth Corridor Plan and the Hume HIGAP strategy emphasise the desire to strengthen the role of Sunbury Town Centre as Sunbury grows.

The Town Centre will be supported in the future by a new network of sub-regional and local scale services as recommended by Hill PDA. This will allow for the townships expansion and consolidation as the primary activity centre to provide solely for the higher order needs of the growing population whilst also preserving the unique semi-rural character and natural setting of the township.

4.1.2 Major Town Centres

The Sunbury South PSP makes provision for a new Major Town Centre (MTC) at Redstone Hill, the *Redstone Hill Major Town Centre*. This centre will complement the existing Sunbury town centre by providing for higher order retail, commercial and community services for the eastern region of the Sunbury growth area.

4.1.3 Local Town Centres

The *Harpers Creek Local Town Centre* is planned for the western part of the Sunbury South precinct, south of the existing Jacksons Hill neighbourhood and proximate to the potential future Sunbury South Railway Station. This centre has been planned to provide for up to 5,000m^2 of retail, and will be co-located with future community uses, including a multi-purpose community centre and a government primary school.

The *Yellow Gum Local Town Centre* is to be located in the northern part of the Lancefield Road precinct, adjacent to the potential rail station. This centre has been planned to provide for up to 10,000m^2 of retail, as well as potential longer term expansion, subject to future economic assessment, to allow it to service the sub-regional commercial and civic needs of the north-eastern part of Sunbury, including residents of the future Sunbury North precinct.

Whilst the Hill PDA assessment identified the potential for this centre to ultimately perform a 'sub-regional' role within the activity centre hierarchy, this was considered to be inconsistent with the Sunbury-Diggers Rest Growth Corridor Plan, and with the primary role of the existing Sunbury Town Centre in servicing the broader Sunbury township. The Lancefield Road PSP has therefore sought to limit the role of this centre to that of a Local Town Centre (albeit a larger one, at 10,000sqm of retail floor space). The PSP also acknowledges the potential for this centre to potentially expand further in the longer term, given its strategic location in servicing development in north-eastern Sunbury (including the future Sunbury North PSP). The concept plan within the PSP has been prepared with this potential future expansion in mind.

The *Emu Creek Local Town Centre* is to be located in the southern part of the Lancefield Road PSP. The centre will accommodate up to 6,000m^2 of retail, as well as business uses, a community centre, and a government primary school. It is located proximate to the existing Goonawarra sporting fields reserve to the west of Lancefield Road.

4.1.4 Local Convenience Centres

2 local convenience centres are proposed within the Sunbury South PSP and 1 proposed within the Lancefield Road PSP.

A planned local convenience centre at the Jacksons Creek hub of the Sunbury South PSP will provide for convenience retailing services for residents in the central part of the precinct.

A small Local Convenience Centre on Sunbury Road in the industrial area of the Sunbury South precinct will largely cater for day to day convenience retail needs of nearby workers.

A planned Local Convenience Centre at Balbethan Drive within the Lancefield Road PSP will provide for convenience retailing services for residents in the central part of the precinct, as well as meeting the early shopping needs of residents in the northern part of the precinct.

4.1.5 Industrial Employment Precinct

As per the direction of the Sunbury/Diggers Rest Growth Corridor Plan, a 48ha industrial precinct has been planned as part of the Sunbury South PSP to be located on the north eastern side of Sunbury Road.

This area is proposed to accommodate industrial or employment uses as this location will have good access to planned linkages to the surrounding major road network.

In terms of structure of the area, it has been recommended in the Hill PDA report that there is merit in utilising the Sunbury Road frontage for showroom or bulky goods retail uses and facilitating core industrial activity within the non-road frontage part of the precinct.

4.1.6 Vineyard Road Commercial Precinct

The inclusion of a commercial precinct within the Sunbury South PSP along Vineyard Road is in direct response to several relevant strategic directions supporting its development.

The provision of a future mixed business/residential precinct in Sunbury South to be located between Vineyard Road and the rail line has been accounted for as per the Sunbury/Diggers Rest Growth Corridor Plan. The plan identifies that this precinct will provide for predominantly transport orientated development, office and business services.

The Hume Local Planning Policy Framework also identifies the retention of land south of MacDougall Road for a future employment area and encourage bulky goods and homemaker centres along Vineyard Road.

Further, the Hume HIGAP Strategy also envisages a bulky goods centre to be provided on the eastern side of Vineyard Road near the Calder Freeway with a future employment area nominated for Sunbury South on the eastern side of Vineyard Road.

The intention of this precinct is to act as a primary location within Sunbury for service industry uses with the objective that existing services of this nature which currently exist within the Sunbury township will relocate to this location. The purpose of this is to free up capacity for the Sunbury Principal Town Centre to develop towards more commercial and retail orientated uses as intended for a Principal Town Centre.

4.2 COMMUNITY FACILITIES

The VPA engaged K2 Planning to undertake an *Open Space and Community Infrastructure Needs Assessment* for the purposes to determine the demand of community infrastructure and open space required to support the future population of Sunbury.

This report has identified the demand for 'higher order' community infrastructure associated with the development of the Sunbury South and Lancefield Road PSP areas and has been based on the following assumptions:

- VPA population projections based on 15 dwellings per hectare and an average of 2.8 people per dwelling;
- PSP area age profiles will reflect the growth area age forecasts as noted in Chapter 6 of the report;
- Additional demand for community infrastructure will result from current Sunbury residents potentially using new facilities in the PSP area as they travel to work, or as they provide fit for purpose facilities; and

- Additional demand will also come from residents of adjacent areas including Macedon Ranges residents and residents of Diggers Rest.

Higher Order Infrastructure types considered are noted below:

- Level 3 Low Sub Municipal facilities - libraries; community arts centres; higher order sports reserves; indoor recreation centres; higher order tennis facilities; higher order youth facilities
- Level 4 High Sub Municipal facilities - aquatic leisure centres; community based health precincts; lawn bowls facilities; regional parks
- Level 5 Municipal/Regional facilities - performing arts; civic centre; universities/TAFE's, acute public and private hospitals, day surgeries

K2 has projected the following anticipated demand for higher order community infrastructure as a result of the development of the Sunbury South and Lancefield Road PSPs. VPA and K2 provision standards are also provided:

Level	Higher Order Community Infrastructure	MPA Provision Standard	K2 Provision Standard	Anticipated Need:
Early Years				
3	Specialist Early Childhood Services / Intervention Services	1 Specialist Early Childhood service for every 60,000 people.	1.6 centres per 10,000 children aged zero to six years.	0.9
Libraries, Arts & Cultural Facilities, Neighbourhood Houses, Community Centres, General Meeting Spaces & Youth Facilities				
3	Centre Based Libraries	One municipal library per 150,000 people	1 Centre Based Library per 30,000 people	1.6
3	Community Meeting Spaces – Medium	N/A	1 51-100 people venue per 8,000 people	6.2
4	Community Meeting Spaces – Medium to Large	N/A	1 101-200 people venue per 8,000 people	6.2
5	Community Meeting Spaces – Large	N/A	1 200+ people venue per 20,000 people	2.5
4	Youth Resource Centres	One Youth Centre (incorporated in multi-purpose community centre) per 40,000 people	1 Youth resource Centre per 30,000 people	1.6
3	Community Learning Centre (Medium Multi-purpose community centre)	1 Branch library (located adjacent to community centre) per 21,000 dwellings.	1 Medium multi-purpose community centre per 40,000 people	1.2
3	Specialist Community Centre	One Specialist Community Centre replaces a lower order community centre per 40,000 people	N/A	1.2
4	Civic Centre	One Civic Centre per 150,000 people	N/A	0.3
3	Community Arts / Cultural Centre (Large Community Arts and Cultural Facility)	1 Dedicated specialist facility per 60,000 people	1 community arts centre per 40,000 people.	1.2
4	Regional Arts Centre (Regional Arts and Cultural Facilities)	1 self-contained facility meeting professional and community performing and visual arts needs per 150,000 people	1 Regional Arts Centre per municipality	0.2
3	Public Art	One Public Art Facility per 60,000 people	1 Public Art project per 40,000.	1.2

5	Regional Performing Arts/Exhibition/Convention Centre	One Regional Performing Arts facility per 400,000 people	N/A	0.2
Aged & Disability				
3	Adult Day Care Facility (Planned Activity Group - Seniors, Home and Community Care - Large Seniors Groups)	1 Adult Day care Facility (incorporated in multi-purpose community centre) per 50,000 people	Access to 1 multi-purpose meeting space per 40,000 people.	1.2
3	Delivered Meals Dispatch Facility	1 Meals Facility (incorporated in multi-purpose community centre) per 50,000	1 dispatch facility per 40,000 people	1.2
Indoor Recreation				
3	Council Indoor Sports/Aquatic Centre	1 25 metre pool per 40,000 people	1 council aquatic leisure centre per 40,000 people some elements of the centre may have a level 4 municipal catchment	1.2
3	Higher Order Indoor Recreation Centre (4 Court Stadium)	1 (6-10 courts) centre with pavilion and amenities per 50,000 people	1 (4-6) court facility per 40,000 people.	1.2
Active Outdoor Sport & Recreation & Passive Open Space				
4	District Park (Higher order active open space reserve)	1 Children's playground with BBQ, landscaping and walking trails per 30,000 people	1 higher order active open space reserve (30 ha) per 50,000 people	1
3	Higher Order pavilions	N/A	1 pavilion per 50,000 people	1
3	Regional Park (Higher order passive open space reserve)	1 Children's playground with BBQ, landscaping, walking trails and visitor facility per 250,000 people	N/A	0
3	Higher Order Tennis Courts	1 (6-10 courts) facility and pavilion (club-based facility) per 35,000 people	1 (6-10 court) facility with pavilion per 25,000 people	1.4
4	Municipal Tennis Courts	1 (20 + courts) facility and pavilion (incorporated in regional sports facility) per 150,000 people	1 (24 court) facility with a pavilion per municipality/region per municipality	0.3
3	Lawn Bowls/Bocce Facility	4 greens with clubhouse, car parking and lighting per 40,000	1 lawn bowls facility (4 greens) per 40,000 people	1.2
3	Large Netball Court Facility	N/A	1 (8 court) outdoor netball facility per 50,000 people	1
3	Athletics Track	1 Synthetic track (incorporated in regional sports facility) per 150,000 people	N/A	0.3
Education & Training				
4	Special Needs School	1 School per 60,000 people	assess the need for 1 specialist needs school when population is likely to exceed 50,000 people	1
3	Catholic Secondary School	1 per 32,400 dwellings	In general, a catholic secondary school should be warranted for each 16,000 households	0.8
3	Other Non-Government Schools	1 per 40,000 people	N/A	1.2
4	TAFE	1 per 150,000 people	N/A	0.3
5	University	1 per 400,000 people	N/A	0.2

Law & Emergency Services				
3	Police Station	1 per 100,000 people	1 police station per 37,037 people.	1.3
4	State Emergency Services Facility	1 per 120,000 people	1 VICSES unit per 108,866 people.	0.5
3	Ambulance Services Station	1 per 60,000 people	1 ambulance station per 56,583 people.	0.8
5	Law Courts	1 per 400,000 people.		0.2
Health, Community Services & Social Housing				
3	Medium Community Health Centre	N/A	1 per 50,000 people	1
4	Community Based Health Care / Integrated Primary Care Centre	1 per 150,000 people	1 per 100,000 people	0.5
5	Hospital	1 per 500,000 people (community-based health services)	1 per 200,000 people	0.2

The report made the following recommendations in relation to the provision of higher order community infrastructure associated with the development of the Lancefield Road and Sunbury South PSP areas:

- The Victorian Planning Authority and Hume City Council continue to negotiate with relevant service providers about the expanded provision of higher order community infrastructure at existing facilities in the Sunbury town centre;
- The Victorian Planning Authority and Hume City Council continue to negotiate with developers about the provision of higher order community infrastructure in the Lancefield Road and Sunbury South PSP areas;
- Priority should be given to the planning of a higher order sporting reserve at Lancefield Road North (LR1); and
- Further investigation is required into:

    a. the capacity of existing Sunbury facilities to accommodate future demand based on population forecasts for the whole of Sunbury;
    b. the anticipated demand for a hospital, or health hub in the Sunbury area;
    c. the anticipated demand for a tertiary learning facility in the Sunbury area; and
    d. suitable models for the provision of higher order community infrastructure in Sunbury taking into consideration changing models of service provision, population forecasts for Sunbury overall, and the distinct characteristics of Sunbury including its separation from metropolitan Melbourne.

It is on the advice and recommendations of this report and the relevant PSP Guidelines that the community infrastructure for the Sunbury PSP's has been planned for and will be provided.

4.3 Open Space

The planned open space within the Sunbury region will be extensive, and take on a number of different forms, in keeping with the semi-rural setting of the Sunbury township is quite vast. Both PSPs will comprise of a number of different open space components in order to best serve the community and protect existing significant vegetation. The relevant components will include local sports reserves, regional parks, local parks, conservation areas and regionally significant landscape values. Of the 2,854.74 hectares of land that forms the two precincts 45% (1,288.83 hectares) will be dedicated open space, comprising linear/creek open space, conservation areas, sports reserves and local parks.

4.3.1 Sports Reserves

In order to meet the relevant standard of the PSP Guidelines in relation to sports reserves, 7 sports reserves have been planned across both precincts collectively. This ensures that 95% of dwellings are within 1km of a sporting reserve as shown on Plan 7 – *Open Space* in both PSPs. Sporting reserves vary in size from 5 hectares to 10.25 hectares providing a range of community facilities such as football, cricket and soccer ovals, tennis and netball courts, athletic tracks, indoor sporting facilities children's playgrounds, pavilions and BBQ facilities.

4.3.2 Local Parks

The local park layout of both PSPs has been designed in accordance with the relevant standards of the PSP Guidelines. Local parks are within walking distance (400m) of at least 95% of all dwellings as demonstrated on Plan 7 – *Open Space* in both PSP's. 66 local parks are to be provided in total across both precincts. A number of these are smaller local park nodes adjacent to the broader open space landscape of the Jacksons and Emu Creeks. This will allow open space facilities such as playgrounds, BBQ's etc to be developed adjacent to the creek corridor, and will act as destinations along the broader linear open space network

4.3.3 Linear Open Space & Creek Corridors

The open rural landscape of Sunbury is one of its most significant features.

The Holden Flora Reserve is an important asset of Sunbury which directly adjoins the Jacksons Creek. The PSP and associated statutory controls have been designed in such a way to ensure the ongoing protection of this reserve whilst also providing this area as part of a larger open space network.

Regional open space will be established along both Jacksons and Emu creeks and their associated escarpments supporting the vision for Sunbury that community have high levels of public access and enjoyment of its unique landscapes. These regional parks will include linear trails for walking and cycling along the escarpments and the creeks with larger open space areas located along them for informal activity. By taking this approach, the PSPs are supporting both the integrated open space network intentions for the Sunbury/Diggers Rest Growth Strategy the Hume HIGAP Strategy which identifies this as a preferred approach to open space throughout the region.

The conical hill of Redstone Hill is of significant value to Sunbury being a key landscape feature of the general area. Due to the topography of the region, Redstone Hill is the most physically and visually prominent point within the Sunbury South PSP. This provides a significant regional opportunity to create a passive recreation destination for the region and as such, has been preserved through the development of the Future Urban Structure within the PSP. The development of a hilltop park at this location is identified as the preferred approach by the Hume HIGAP Strategy whilst the Growth Corridor Plan encourages development which ensures the retention of the qualities of these hills as striking natural features of the precinct.

Particular emphasis has also been placed on the preservation of view line corridors throughout the precincts. Specifically those to Redstone Hill, from Jacksons Hill, along creek corridors and from the proposed Redstone Hill MTC main street are of particular importance.

4.4 WHOLE OF WATER CYCLE MANAGEMENT

Sunbury Whole of Water Management Strategy is an integrated water management project between Western Water, Melbourne Water, Hume City Council, DELWP and the Victorian Planning Authority.

The project was established to manage the sustainable use of water resources, stormwater management and wastewater treatment, which is vital to its success and ability to service the growing population of Sunbury.

This work is particularly important to the Sunbury South and Lancefield Road precincts from the perspective of rainwater and stormwater treatment and discharge given the highly erosive nature of the Sunbury landscape. Therefore the need to carefully manage the impacts associated with discharge of this water into the existing creek corridors is of the highest importance.

The Sunbury Growth Area Integrated Water Management Analysis which forms the basis of the project was completed by E2 Design Lab in April 2015. Implementation of the recommendations of this report are currently being considered by the project partners and have been considered in the implementation of the PSP Requirements and Guidelines.

As part of this project, an assessment of the potential land take implications associated with a range of various stormwater/integrated water management solutions was undertaken. The relevant agencies are confident that the land take associated with stormwater management assets within the precinct is sufficient to safeguard the further consideration of these potential water management solutions.

4.5 TRANSPORT AND MOVEMENT

The VPA engaged GTA to undertake strategic transport modelling of the nine proposed transport network options to determine the anticipated demands following the build out of the two PSPs.

In response, GTA undertook an assessment of a range of future scenarios in the ultimate to understand the importance of a range of proposed transport infrastructure projects. In order to compare and contrast the performance of each option, the following outputs of GTA's analysis were produced:

- *Network performance analysis* indicated that Option 5 (Refer to the report for details) provided the best outcomes in terms of Vehicle Hours Travelled (VHT) and average speed both in the AM and PM peak period however the overall modelling showed that in each option, the network operation conditions are not projected to be too dissimilar to current levels.
- *Link volume analysis* results show that with the Outer Metropolitan Road (OMR) in place, Sunbury Road will attract up to 20,000 vehicles per day more than if the OMR was not in place. This shows that the OMR is projected to be a big attractor for travel to and from Sunbury.
- *Volume to Capacity Ratio* outputs for key locations identified in Figure 4 of the report, AM peak data showed that the city bound traffic on Sunbury Road and Vineyard Road are the most critical points in the network with Degree of Saturation (DOS) values approaching or exceeding their theoretical critical points in the network with DOS values approaching or exceeding their theoretical capacities. The options with the OMR in place (Options 1-5) indicate that Sunbury Road will be required to be considered as part of its planning with DOS values greater than 1.

- *Mode share* results indicated that there is a mode shift change for each precinct for 2046 and the broader Victorian Integrated Transport Model (Melbourne) network between the options with and without the OMR – indicating a small uplift in active travel and public transport usage and a corresponding decrease in car travel.
- *Select Link Analysis* results indicated that a high percentage of the trips using the proposed creek crossings during the AM and PM peak periods have either an origin or a destination within either the Sunbury South PSP or the Lancefield Road PSP. The creek crossing in Sunbury South exhibits a slightly higher proportion of through traffic than the crossing in the Lancefield Road PSP.

Overall, GTA's transport modelling has confirmed that, in the ultimate, the proposed regional road network as planned has sufficient capacity to support the anticipated transport volumes. There are a number of interim transport network constraints that will need to be addressed in the short-medium term to ensure that the road network continues to perform efficiently, and in particular upgrades to Sunbury Road (including the delivery of the Bulla Bypass) and the delivery of additional Jacksons Creek road crossings.

The following sections explain what work is proposed to be undertaken in order to achieve the results required to support anticipated transport volumes.

4.5.1 Arterial Road Network

Sunbury Road

Sunbury Road is an existing VicRoads arterial road which is the main connection between Sunbury and Melbourne Airport as well as the Tullamarine Freeway.

In its current form, Sunbury Road is a four lane divided road between Powlett Street and Racecourse Road and forms a two-lane road in the remaining section of the corridor. Following assessment, this road will ultimately need to consist of a six lane cross section between Diggers Rest Road and Racecourse Road and a four lane cross section north of Racecourse Road.

Vineyard Road

Currently Vineyard road is a four land divided arterial road (controlled by VicRoads) which provides access from the Sunbury Township to the Calder Freeway. Being another important connection across the Sunbury precincts, this road will play a major role in providing access throughout the precincts and so will ultimately consist of a six lane cross section at the point of full development of the PSPs.

Melbourne-Lancefield Road

The north-south aligned Melbourne-Lancefield Road is a two way sealed road which connects Sunbury Road to the South of the Lancefield Township. Ultimately, it will consist of a six lane cross section through the study area.

Internal Road Network

The internal network proposed for both PSP's is underpinned by a grid of collector and boulevard road types that provide internal connectivity to local convenience and town centres, open space, community facilities and importantly, the external network.

Jacksons Creek Crossings

The Sunbury/Diggers Rest Growth Corridor Plan identified two crossings of Jacksons Creek to be investigated.

As a result of the introduction of these bridges, GTA determined the following:

- The Sunbury town centre would experience a reduction between 2,000 and 5,000 vehicles per day with the introduction of both bridges regardless of the Outer Metropolitan Ring road (OMR);
- Sunbury Road between Barkly Street and Francis Boulevard will experience approximately 10,000 to 15,000 vehicles per day less with the introduction of the two bridges regardless of the OMR;
- Vineyard Road north of the interchange will experience between 1,000 to 4,000 fewer vehicles per day; and
- Melbourne-Lancefield Road will experience a reduction between 3,500 and 5,500 vehicles per day with the introduction of the two crossings, regardless of the OMR.

Overall, it was found that there is clearly a reduction in traffic through the Sunbury town centre with the introduction of the two bridges and across the precincts as a whole. As a result of the findings in support of the creek crossings, both are now reflected in the relevant PSP.

Local Connections

The Jacksons Hill link has been designed to provide a link between Yirrangan Road and Buckland Way for the residents of Jacksons Hill. The provision of this link was not driven by the PSP but by a Section 173 Agreement put in place between Places Victoria and City of Hume prior to the commencement of the development of the Jacksons Hill residential estate. As such, inclusion of this connection has been incorporated within the design of the local road layout for the Sunbury South PSP.

Local Road Upgrades

The upgrade of several local roads has been identified as necessary in order to improve the road network. These connector roads include:

- Watsons Road;
- Buckland Way;
- Foxhollow Drive;
- Balbethan Drive; and
- Stockwell Drive.

The funding for the upgrade of these roads will be provided for through the ICP.

Additionally, Crinnion Road will be upgraded from Watsons Road as identified as part of the road works required to deliver appropriate traffic passages and capacity through the Sunbury South PSP. This link will continue to provide a vial connection the Calder Freeway from the precinct.

Upgrades to existing intersections to Vineyard Road have been identified as vital to the future road network. These will be upgraded in order to provide connections to the future Sunbury West precinct. Designs of these connections have been considered in terms of future capabilities and access requirements between the two precincts.

Gellies Road, is an existing local road which forms part of the boundary between the two precincts. The road itself will be upgraded as a local connector, providing access to local streets within each precinct via a new set of signals on Lancefield Road. Given that development of the precincts is not

projected to significantly increase traffic volumes on Gellies Road, other than those associated with local access, it is not proposed to upgrade the existing single lane bridge crossing of the Emu Creek.

Grade Separation

There are three grade separations proposed within the precincts.

The Southern Link grade separation is located in the Sunbury South precinct within close vicinity of the proposed train station.

The proposed grade separations on Elizabeth Drive and Balbethan Drive are located within the Lancefield Road precinct providing access across the train line to the far north and south of the precinct.

These grade separations have been designed in direct response to the State Planning Policy 18 – *Transport* as found in all Victorian Planning Schemes. In particular, the relevant sub section 18.02-4 - *Management of the road system* which specifically notes the strategy to "provide for grade separation at railways crossings except with the approval of the Minister for Transport". This grade separation has been subject to a concept level design by Parsons Brinkerhoff (PB).

Rail Stations

Two rail stations have been incorporated into the PSPs (1 in each precinct) as a direct response to the Sunbury Growth Corridor Plan which identify both stations at their proposed locations.

The first is proposed to be located in the northern portion of the Lancefield Road precinct which will support two schools, the Yellow Gum town centre, future potential TAFE/hospital site and adjoining community facilities.

The second is located within the far west of the Sunbury South precinct, parallel to Vineyard Road and within the vicinity of the Vineyard commercial precinct, a proposed government primary school and a local town centre.

The Sunbury South Rail Station is anticipated to be delivered in the short to medium term, followed by Lancefield Road Rail Station in the longer term as identified within the VPA's *Sunbury Infrastructure Co-Ordination and Delivery Strategy*. This document outlines the components and prioritisation of the delivery of the necessary higher order infrastructure required to support the development of the precincts over a 4 stage timeframe. Sunbury South station has been identified as required for delivery within Stage 2 – Medium Term Growth and the Lancefield Road station in Stage 3 – Long Term Growth.

The delivery of these stations is reliant however upon the delivery of the Melbourne Metro Rail Authority's Metro Tunnel. This tunnel will allow for more trains to run in and out of the city giving the Sunbury line its own tunnel through the CBD. The provision of this tunnel will also result in the addition of 65 new high capacity trains which will in turn free up more trains across the Melbourne rail network and hence providing the ability to deliver the two proposed rail stations within the Sunbury precincts. Construction of the Metro Tunnel is due to be completed in 2026.

4.6 UTILITIES AND SERVICE INFRASTRUCTURE

The VPA commissioned Jacobs Group in 2014 to undertake a high level utility servicing assessment of the precinct areas of Sunbury South and Lancefield Road.

This report identifies the high level opportunities and constraints to development with respect to utility services infrastructure of both precincts. The capacity of existing services and the likely future infrastructure requirements have been assessed in consultation with the relevant authorities.

From the assessment and discussions with servicing authorities, Jacobs has determined no major constraints were identified subject to the logical roll out of trunk infrastructure to respond to development staging.

This information has informed the preparation of *Plan 12 – Utilities* and associated Requirements and Guidelines within both PSP's.

Water and Sewer Supply

Supplier – Western Water (Sewer, water and recycled water).

Current Western Water data indicates existing reticulation is present along the alignments of existing road reserves within the precinct.

Current Western Water data also indicates there are no reticulated mains servicing existing residents within the precinct. A DN375 mm rising main traverses the precinct from the north of the precinct and runs parallel to the existing railway line corridor through to Diggers Rest.

It is noted that currently there is no recycled water currently available to the precincts, however Western Water have advised that the potential for a 'third pipe' system should be preserved, unless a future Integrated Water Management Strategy for the area identifies alternative water management solutions.

Electricity

Suppliers – SP AusNet (Transmission) and Jemena (Distribution network).

Jemena have indicated they are unable to determine augmentation requirements for the precincts or provide potential cost impacts to the developer without detailed master plans, staging and proposed timing of the development to be prepared. However, it has been advised that should the assessment indicate a considerable increase in load, an additional zone substation may be required.

An existing high voltage transmission line is located within a 50m wide (approximately) easement which traverses the former Carmody property, from Harker Street (House No. 109) across to Sunbury Road then continuing within and along the western grassed verge of Sunbury Road.

Another existing dual (2 x 500kV) high voltage transmission line is located within a 100m wide (approximately) easement which runs parallel to the eastern boundary of the Woulfe, Quinn and Brown properties, and appears to sit partially within the Woulfe, Quinn and Brown property. The dual transmission line then continues north east along the southern boundary line of the Hi Quality property.

Both high voltage transmission line easements will be required to be retained in the planning of the precincts with development and use of these to be within line with SP AusNets "A guide to living with transmission easements".

Gas

Suppliers – SP AusNet (Supply mains) and APA Group (Transmission mains).

There are no SP Ausnet assets within the Sunbury South PSP with supply currently provided adjacent to the precinct to the north.

An APA Gas Transmission Pipeline exists within the site, along the eastern alignment of the railway corridor.

APA has indicated a preliminary 'Measurement Length' of 164m both sides of the pipeline in accordance with the requirements of the relevant Australian Standard for Gas and Liquid Petroleum Pipelines. Buildings and community type facilities, including sporting facilities and sensitive uses like schools are required to be located beyond the measurement length however, normal residential development within the 164m zone is allowed as are other uses such as open space and bike trails.

Telecommunications

Suppliers – Telstra, Nextgen Group (Visionstream) and NBN Co.

Telstra have existing communication services within and adjacent the precinct. However with the rollout of the NBN Telstra would only be the retail provider of last resort being the Universal Service Obligation provider outside the NBN Co's long-term fibre footprint. It is anticipated that future communication services for the area will be supplied through the NBN Co.

Nextgen Group has advised that the existing Sydney to Melbourne (inter capital) trunk cable assets traverse sections of the site. Should this fibre optic cable be required to be relocated to accommodate any further development use, further discussions will be required with the Nextgen Group.

5 REFERENCES

The following reports have been used to inform this report. Plans have not been included in this report and reference should be made to the original documents when reading this report. The original documents are located on our website at http://www.vpa.vic.gov.au/.

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- Context (December 2014) "PSP 1074 Sunbury South Post-Contact Heritage Assessment".
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- Environmental Earth Sciences (July 2015) "Land Capability Assessment for the Lancefield Road Precinct Structure Plan, Sunbury Victoria", Report number 213066_PSP75.
- Environmental Earth Sciences (July 2015) "Land Capability Assessment for the Sunbury South Precinct Structure Plan, Sunbury Victoria", Report number 213066_PSP74.
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- Growth Areas Authority (December 2012) "Precinct Structure Planning Guidelines".
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- Tree Tec (December 2014) “Arboricultural Assessment of Sunbury South Precinct 1074”.
- Wurundjeri Tribe Land & Compensation Cultural Heritage Council Inc. (March 2015) “Targeted Cultural Values Inspection of PSP 1074 & 1075 Sunbury”.


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