



City of Cockburn  
COCKBURN CENTRAL EAST STRUCTURE PLAN

## Document Information

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Endorsement page

This structure plan is prepared under the provisions of the City of Cockburn Town Planning Scheme 3.

It is certified that this structure plan was approved by resolution of the Western Australian Planning Commission on:

5 December 2018

Signed for and on behalf of the Western Australian Planning Commission:



.....  
An officer of the Commission duly authorised by the Commission pursuant to section 16 of the Planning and Development Act 2005 for that purpose, in the presence of:



.....Witness

.....5 December 2018.....Date

.....5 December 2028.....Date of Expiry

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Amendment No.	Summary of the Amendment	Amendment type	Date approved by WAPC

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## EXECUTIVE SUMMARY

This Structure Plan has been prepared to facilitate the planning framework requirements for the Armadale Road and North Lake Road Bridge Interchange Project. Main Roads Western Australia (MRWA) have finalised their design for the significant infrastructure upgrade and extension and as a result the new alignment requires a local planning framework response given the current alignment of Verde Drive identified in the Solomon Road Structure Plan is no longer proceeding. Furthermore, the Structure Plan seeks to address local planning framework planning requirements to guide the subdivision and development of land surrounding the emerging road network upgrades. The major road infrastructure project has also been funded for delivery by announcement as part of the 2017 Federal Budget.

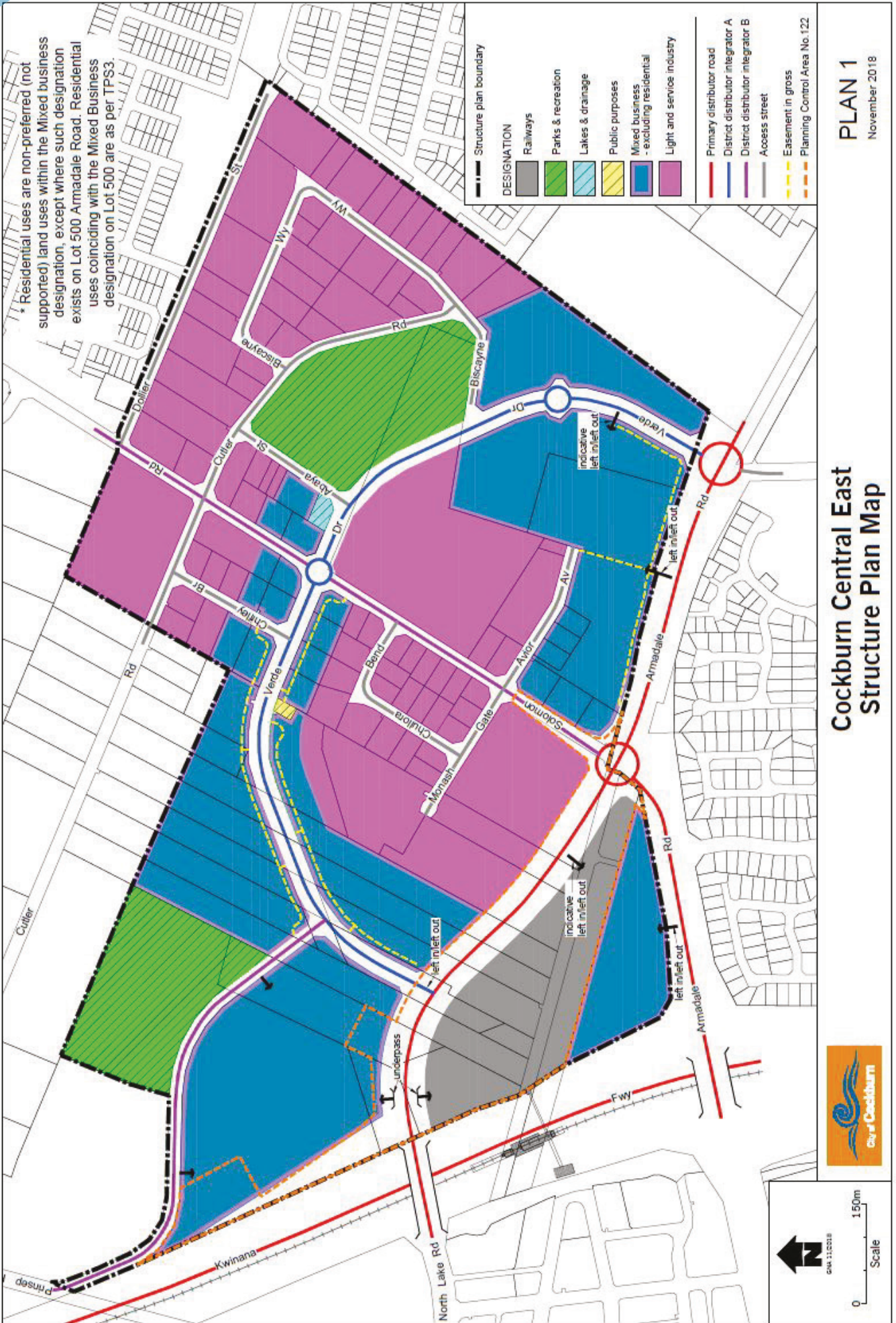
The Structure Plan area covers the land illustrated at the Structure Plan map ([Plan 1](#)). The Structure Plan area is consistent with the boundary of Development Area 20 of City of Cockburn Town Planning Scheme 3 (TPS3) and will replace the Solomon Road Structure Plan currently guiding land use within the area (See [Figure 6](#)). The Structure Plan area is 108.28 hectares however noting land use changes predominantly relate to a significantly smaller area within the western portion of the Structure Plan area ([Table 1](#)).

The primary objectives of the Structure Plan are to:

- Provide direction for future land use planning and the local road network needs as a result of the realignment and connection of Armadale Road and the North Lake Road Bridge, and its associated freeway interchange;
- Provide for the long-term Cockburn Train Station commuter car parking requirements for the Public Transport Authority;
- Promote accessibility to the Cockburn Train Station for the Structure Plan area and the growing urban corridor to the east of Cockburn Central;
- Promote the transition of key areas within the structure plan area into a mixed use transit oriented development;
- Retain and foster employment use over residential use, and;
- Identify staging requirements for short, medium and long term strategic planning land use needs within the immediate vicinity of the Cockburn Train Station, within the core area of the Cockburn Central Activity Centre.

Table 1: Structure Plan Area

	Existing	Proposed	Difference
Parks and Recreation	18.717	10.075	-8.642
Lakes and drainage	0.1308	0.1308	0
Public purpose	0.0619	0.0619	0
Mixed business	24.5233	37.5219	12.9986
Light and service industry	47.4894	34.7113	-12.7781
Railway	4.0335	6.1442	2.1107
Total	94.9559	88.6451	-6.3108
Total structure plan area	109.1808	108.2888	-0.892



**Cockburn Central East  
Structure Plan Map**





# PART ONE: IMPLEMENTATION

## 1 STRUCTURE PLAN AREA

The Structure Plan applies to Development Area 20 of TPS3. The Structure Plan area is identified on the Structure Plan map (Plan 1) and is generally bound by the Kwinana Freeway, Armadale Road, Cutler Road and the western edge of the Banjup residential estate.

## 2 OPERATION

The Structure Plan shall come into operation when the Structure Plan is approved by the Western Australian Planning Commission (WAPC).

## 3 STAGING

Prior to the completion of the Armadale Road and North Lake Road Bridge Interchange Project, the infrastructure and road upgrades, and related matters identified in Table 2 are anticipated to be completed.

## 4 SUBDIVISION AND DEVELOPMENT REQUIREMENTS

### 4.1 LAND USE DESIGNATIONS AND PERMISSIBILITY

Land use permissibility within the Structure Plan area shall be in accordance with the Structure Plan map (Plan 1) and its land use designations. Land use permissibility for each land use designation is as per the equivalent named zone and reserve within TPS3 except for the following:

Residential uses are non preferred (not supported) land uses within the Mixed business designation, except where such designation exists on Lot 500 Armadale Road. Residential uses coinciding with the Mixed business designation on Lot 500 are as per TPS3.

There is to be a primary presumption in favour of retaining and fostering employment use over residential use.

Residential use may be contemplated if it can be appropriately demonstrated that residential use will achieve the following outcomes:

- Support economic activity in the Cockburn Central Activity Centre;
- Is an appropriate component of a mixed use development;
- In respect of health and amenity, will not adversely impact, or be adversely impacted by existing, proposed or planned land uses on the subject development site and in the wider locality;
- The development will be of suitable density, design, form, height and scale, which responds to the applicable WAPC and City of Cockburn planning policies, and;
- The land use designation of the land under the Metropolitan Region Scheme (MRS) and the Structure Plan provides for residential uses (if, respectively, the land is zoned Urban and designated Residential).

An amendment to the Structure Plan that contemplates amending land use permissibility for residential uses is contingent upon the MRS first being amended to Urban (currently zoned Industrial except for Lot 500 Armadale Road). The MRS amendment will need to consider the form and function of the Cockburn Central Activity Centre at that point in time and address the adequacy and provision of employment land for the South West region and the locality, recognising the objectives of the operative strategic planning framework.

Table 2 – Staging and implementation requirements

	Item	When	Who	Section
1	Public access easement along the northern frontage of Armadale Road between Solomon Road and Verde Drive to integrate with the new Armadale Road alignment and intersections.	Subdivision stage for Armadale Road and North Lake Road Bridge Interchange Project.	MRWA	7.1
2	Construction of southern extension to Prinsep Road.	Prior to completion of the Armadale Road and North Lake Road Bridge Interchange Project.	"LandCorp" and "the D'Amatos" as per Deed of agreement dated 11 June 2004 requiring the upgrade of Prinsep Road.	7.1
3	Construction of Verde Drive between new Armadale Road alignment and Solomon Road.	Prior to completion of the Armadale Road and North Lake Road Bridge Interchange Project.	Landowners within the alignment (provision of land within easement) and the City of Cockburn (cost of construction).	7.5.1
4	Consolidate all Public Transport Authority commuter car parks into the newly created precinct to the east of the Cockburn Train Station.	Prior to/concurrently with the completion of the Armadale Road and North Lake Road Bridge Interchange Project	PTA to prepare subdivision and development application(s) that address the requirements in <a href="#">Table 3</a> .	Table 3 and 6.3

## 4.2 SUBDIVISION AND DEVELOPMENT OF LAND

### 4.2.1 ARMADALE ROAD AND NORTH LAKE ROAD BRIDGE INTERCHANGE PROJECT

As a result of the Armadale Road and North Lake Road Bridge Interchange project, the WAPC and MRWA in conjunction with other stakeholders will undertake land amalgamations to address the severing of lots and acquisition of land required as a result of the new road alignment. A Planning Control Area (PCA) is in place over the area affected by the realignment, providing the mechanism for acquisition of land.

Properties abutting Armadale Road will not have access to Armadale Road other than that permitted by MRWA.

### 4.2.2 MINIMUM LOT SIZE WITHIN THE MIXED BUSINESS ZONE

Subdivision should be based on a minimum lot size of 2,500 square metres for the subdivision and development of land designated Mixed business, in order to facilitate long-term land use transition potential. The objective of the minimum lot size is to provide sufficient land area to provide for functional land use options that can evolve over time. This minimum lot size is deemed suitable for a range of warehouse, office, and light and service industrial development in the short to medium term, as well as the option to evolve to mixed use development in the long term.

### 4.2.3 PUBLIC TRANSPORT AUTHORITY (PTA) COMMUTER CAR PARK - SUBDIVISION AND/OR DEVELOPMENT APPLICATION REQUIREMENTS

Any subdivision and / or development application for the creation of the PTA commuter car park precinct should address the requirements identified within [Table 3](#). Further information regarding the precinct is provided within [Section 6.3](#) (Part 2).

### 4.2.4 PRESENCE OF BANKSIA WOODLAND OF THE SWAN COASTAL PLAIN

Within the Structure Plan area is Commonwealth listed threatened ecological community 'Banksia Woodland of the Swan Coastal Plain'. Therefore any subdivision and / or development application that will necessitate the clearing of land may be subject to obligations under the Environmental Planning and Biodiversity Conservation Act 1999. See [Section 5.1](#) (Part 2) and the Flora and Fauna Level 1 Survey at [Appendix 2](#) for further details.

### 4.2.5 PROXIMITY TO JANDAKOT AIRPORT

In the event that sensitive land use is proposed by way of a subdivision and / or development application, in accordance with State Planning Policy 5.3 Land Use Planning in the Vicinity of Jandakot Airport, consideration is to be given to the imposition of a condition on the certificate of title of the subject land advising of the potential for noise amenity impact associated with the operations of Jandakot Airport.

Table 3 - PTA commuter car park precinct subdivision and/or development application requirements

Requirement	Intent/functional requirements
<p>A concept plan demonstrating staging options for the transition of the precinct over the long term to accommodate mixed use development.</p>	<p>The application for the PTA commuter car park should be accompanied by a concept plan that illustrates an example configuration option for the transition of the precinct to mixed use. The concept plan should illustrate the manner mixed use development can front Knock Place and the new public amenity area while addressing the primary function of priority access for all transit modes to and from the Cockburn Train Station.</p> <p>A key outcome sought is how to deliver mixed use development and concurrently consolidate car parking while providing for access needs.</p>
<p>A public amenity area of a similar size, scale and development to the Cockburn Town Centre.</p>	<p>The application for the PTA Commuter car park should provide:</p> <ul style="list-style-type: none"> <li>• A suitable pick up and drop off area for commuters.</li> <li>• Quality design and amenity levels appropriate for a transit oriented development in a town/activity centre environment.</li> <li>• Suitable connection with the Cockburn Train Station entrance and cycle and pedestrian path network.</li> <li>• Landscaping proposals to: <ul style="list-style-type: none"> <li>• Include suitable mature tree plantings commensurate and appropriate with the scale of the precinct.</li> <li>• Address the interface between the public space and car parking areas.</li> <li>• Address the drainage requirements set out within the Local Water Management Strategy (LWMS) at <a href="#">Appendix 3</a>.</li> </ul> </li> </ul>
<p>Road network connections</p>	<p>The application for the PTA commuter car park should provide:</p> <ul style="list-style-type: none"> <li>• Suitable internal road movement network to connect with the ingress and egress points into the precinct and upgraded to a local road standard.</li> <li>• Evidence of the opportunities to realign Knock Place along the northern boundary of Lot 500 Armadale Road.</li> </ul> <p>The required internal road / movement network connecting the underpass with Prinsep Road should be constructed concurrently with the construction of the PTA commuter car park precinct.</p>
<p>Integrated and connected pedestrian and cycle path network</p>	<p>The application for the PTA commuter car park should provide:</p> <ul style="list-style-type: none"> <li>• Pedestrian and cycle path connections with the wider network via the ingress and egress points into the precinct.</li> <li>• Suitable mature tree plantings along the pedestrian and cycle path network.</li> </ul>

#### 4.2.6 LOT 500 ARMADALE ROAD - PROVISION OF RESIDENTIAL DEVELOPMENT

Any subdivision and/or development application proposing residential development on Lot 500 shall address the requirements of:

- State Planning Policy 5.4 Road and Rail Transportation Noise and Freight considerations in Land Use Planning.
- State Planning Policy 5.3 Land Use Planning in the Vicinity of Jandakot Airport.
- The City of Cockburn Noise Attenuation Policy 1.12.
- The Environmental Protection Authority Guidance for the Assessment of Environmental Factors No. 3 June 2005.
- The Bushfire Management Plan prepared by Bushfire Prone Planning (Dated 21 September 2018) at [Appendix 5](#).

Residential development may be the subject of impacts from aircraft transport and the activities undertaken in the industrial area north of Armadale Road. These impacts (noise, dust, odour, vibration, light) may give rise to separation of sensitive residential land uses and / or measures to mitigate the identified impacts.

#### 4.2.7 DEVELOPER CONTRIBUTIONS

The western portion of the Structure Plan area as depicted in [Figure 5](#) is subject to the requirements of Development Contribution Area (DCA) 8. Landowners within DCA 8 shall make a proportional contribution to the cost of common infrastructure for the Solomon Road Arterial Drainage System. The recommendations of the Local Water Management Strategy (LWMS) at [Appendix 3](#) supporting this Structure Plan details no change or implications for DCA 8. Rather the requirements of the LWMS and subsequent Urban Water Management Plan (UWMP) are required in addition to the requirements of the arterial drainage system within DCA 8 as established within the Solomon Road Structure Plan (now superseded by this Structure Plan).

#### 4.2.8 WETLAND MANAGEMENT PLAN

Any subdivision and/or development application for Lot 800 and/or Lot 802 Prinsep Road shall be supported by a wetland management plan for Lot 802 Prinsep Road.

#### 4.2.9 ACID SULPHATE SOILS

The Study Area is mapped as mostly having a moderate to low risk of Acid Sulphate Soils (ASS) occurring within 3 m of natural soil surface or deeper, with hotspots of high to moderate risk in the north-eastern and north-western portion of the Study Area. The ASS map is shown on [Figure 4](#) in [Appendix 3](#). The LWMS recommends that an Acid Sulphate Soil investigation be undertaken across the site prior to construction activities and if required an Acid SULPHATE Soils and Dewatering Management Plan (ASSDMP) be prepared for the site prior to construction works.

#### 4.2.10 NOISE SENSITIVE DEVELOPMENT

Any subdivision and/or development application proposing sensitive land uses in the Structure Plan area, noting these are non-preferred, must address the requirements of State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning.

#### 4.2.11 BUSHFIRE MANAGEMENT

This Structure Plan is supported by a Bush Fire Management Plan (BFMP) at [Appendix 5](#), including a Bushfire Hazard Level (BAL) Assessment.

Any land falling within 100 metres of a bushfire hazard identified in the Bushfire Hazard Level Assessment (BAL) is designated as a Bushfire Prone area for the purpose of the Building Code of Australia.

Subdivision and development shall be in accordance with the requirements of the BFMP (Bushfire Prone Planning, September 2018). However it is recognised that a significant part of the Structure Plan area is already developed and that the future subdivision of lots located towards the freeway are unknown. As a result subsequent subdivision and development applications should address the BFMP at [Appendix 5](#) and undertake further detailed bushfire assessments as required to identify BAL ratings for lots yet to be identified.

# PART TWO: EXPLANATORY REPORT

## 1 INTRODUCTION

### 1.1 VISION FOR COCKBURN CENTRAL EAST

Consistent with State level planning objectives, the vision of a transit oriented development for the Cockburn Central Activity Centre has been an aspiration since its inception in the late 1990's. Evidence of this is the western portion of the core area of the Activity Centre where high density residential development is located within the Town Centre precinct, and planning frameworks support further high density mixed use developments within the Cockburn Central West precinct and to a lesser extent within Cockburn Central North. A significant portion of these precincts are located within the walkable catchment of the Cockburn Train Station.

Cockburn Central is also recognised as a major centre and a key point along the southern enterprise arc. This arc links the major enterprise areas of the Western Trade Coast, Australian Marine Complex, Bibra Lake Industrial Area, Jandakot City, Forestdale Business Park and the Armadale Strategic Centre. While the central positioning of the Activity Centre and its location adjacent to the Kwinana Freeway is attractive from an economic perspective, it also results in the attraction of a significant level of regional traffic. The omission of the North Lake Bridge has resulted in regional traffic being pulled into the core area to access the Kwinana Freeway, resulting in the fragmentation of the Activity Centre.

Therefore the immediate aspiration for Cockburn Central East, and the purpose of this Structure Plan, is to deliver the Armadale Road and North Lake Bridge Interchange Project. This project will divert regional traffic out of the core area of the Activity Centre and will contribute towards the activity centre's evolution of a transit oriented development continues.

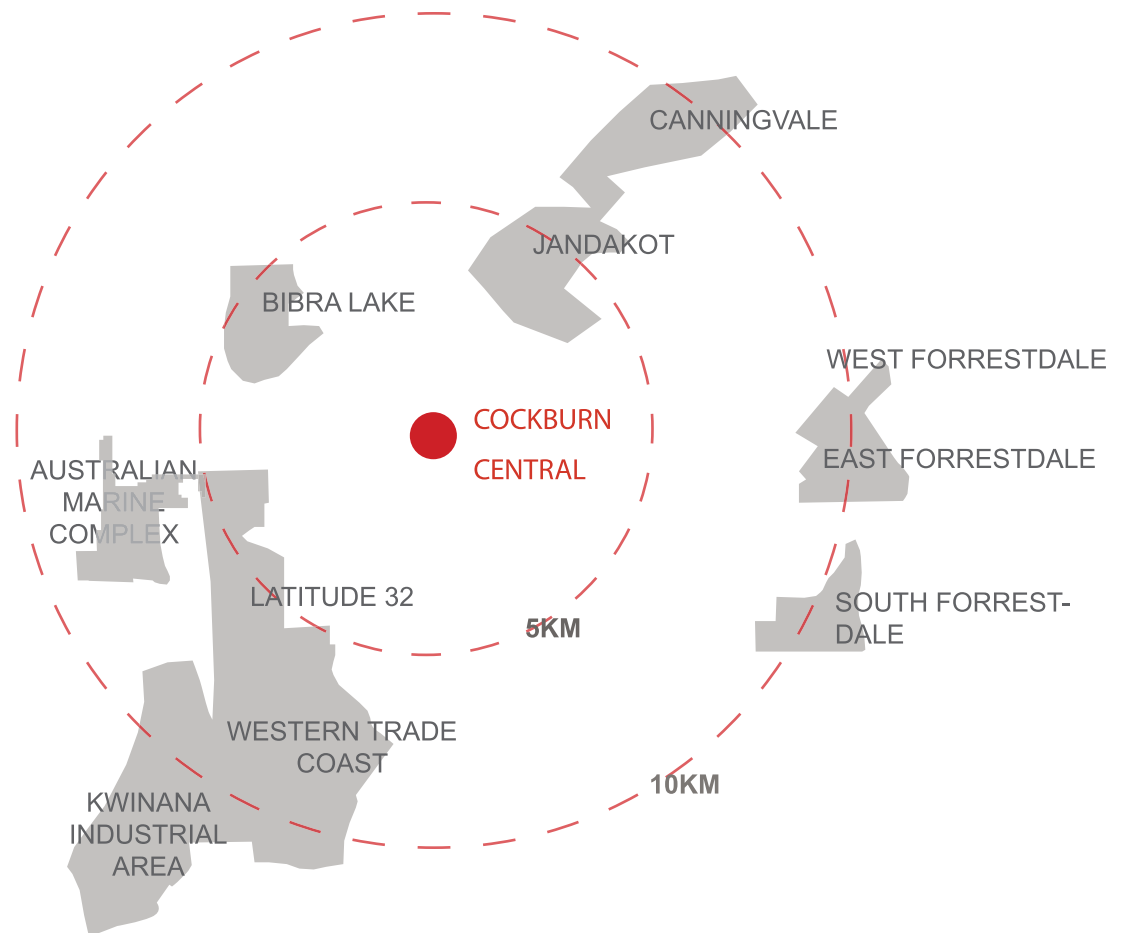
Over the long term it is anticipated this will include the provision of high density mixed use development within the 400-800m eastern catchment of the Cockburn Train Station.

The short to medium term objective recognises several constraints currently preventing higher order uses including residential development, office and strategic employment being attracted to Cockburn Central East. These include land under multiple ownership, the existence of industrial type uses that are incompatible with residential development, the regional and local planning framework currently in place supporting industrial and light and service industry type developments, the state of the property market, and of significance the competition from other activity centres located in closer proximity to the Perth CBD preventing development being attracted to the precinct.

For further information regarding these elements including the state of the market in the context of Cockburn Central East, refer to the Market Feasibility Assessment (May 2017) prepared by Colliers International at [Appendix 1](#).

The medium to long term transition of Cockburn Central East is further discussed within [Section 6](#).

Figure 1: Regional proximity to major enterprise areas



## 1.2 PURPOSE OF THE STRUCTURE PLAN

This Structure Plan is seen as the next step required to achieve the long term aspiration for Cockburn Central East, resulting in the following primary objectives for the Structure Plan:

- Provide direction for future land use planning and the local road network needs as a result of the realignment and connection of Armadale Road and the North Lake Road Bridge, and its associated freeway interchange;
- Provide for the long-term Cockburn Train Station commuter car parking requirements for the Public Transport Authority;
- Promote accessibility to the Cockburn Train Station for the Structure Plan area and the growing urban corridor to the east of Cockburn Central;
- Promote the transition of key areas within the structure plan area into a mixed use transit oriented development;
- Retain and foster employment use over residential use, and;
- Identify staging requirements for short, medium and long term strategic planning land use needs within the immediate vicinity of the Cockburn Train Station, within the core area of the Cockburn Central Activity Centre.

## 2 PLANNING BACKGROUND

### 2.1 THE ARMADALE ROAD AND NORTH LAKE ROAD BRIDGE INTERCHANGE PROJECT

The Armadale Road and North Lake Road Bridge Freeway Interchange project has recently been committed funding from the Federal and State Governments. In partnership with Main Roads Western Australia (MRWA), Department of Planning (DoPLH), Department of Transport (DoT) and the Public Transport Authority (PTA), a strategic road infrastructure design establishes:

- The extension of Armadale Road and the construction of the North Lake Bridge;
- A north bound freeway on ramp and a south bound freeway off ramp;
- The widening of the Armadale Road bridge for vehicles seeking to access Kwinana Freeway North bound;
- Two grade separated roundabouts, and;
- Connections with the existing road network and new access points of which require a local road planning response.

State and Federal Government funding of approximately \$237 million within the recent Federal Government Budget is confirmed for the project and as a result a Structure Plan is required immediately to facilitate land use and road network planning needs in connection with this significant infrastructure upgrade.

### 2.2 INTER-AGENCY STEERING GROUP

An inter-agency steering group guided the preparation of the Structure Plan involving DoPLH, PTA, MRWA and DoT. This collaborative approach recognised the significant State owned land located within the structure plan area, the PTA commuter car park sites requiring consolidation, and the existence of the Cockburn Train Station. A range of delivery agencies were required to collaborate to address planning and infrastructure requirements associated with the Armadale Road and North Lake Road Bridge Interchange Project.

### 2.3 LOCAL CONTEXT

Cockburn Central East forms the northeastern corner of the core area of the wider Cockburn Central Activity Centre and is centrally located along Armadale Road at the juncture of the Kwinana Freeway and the Cockburn Central Train Station. Industrial developments currently frame the northern edge of the precinct, while residential development is emerging within the Calleya Estate to the east. Further afield, the eastwest growth spine of Armadale Road will see up to 20,000 new dwellings delivered along the corridor within the City of Cockburn and the City of Armadale towards 2031. Armadale Road will importantly provide a strong eastwest connection for both vehicles with a regional connectivity desire, including access onto the Kwinana Freeway, in addition to those seeking to access Cockburn Central itself.

The Cockburn Central East precinct as a result of its central location and position adjacent to the Cockburn Train Station will act as an important gateway into the Cockburn Central Activity Centre for those accessing the centre from the east.

Refer to [Figure 2](#) – Local Context Plan



## 2.4 REGIONAL CONTEXT

Cockburn Central is identified as a Secondary Centre within the Perth Metropolitan activity centre network and is located approximately 23km south of the Perth CBD. Within the 10km catchment to the north is the Jandakot Airport, the emerging Murdoch medical and health specialist Activity Centre and the Fiona Stanley Hospital.

Refer to [Figure 3](#) – Regional Context Plan

## 2.5 AREA AND LAND USE

The Structure Plan applies to approximately 108 hectares of land as shown on Map 1 of which represents the precinct commonly referred to as the Solomon Road Industrial Area. This follows the 2009 Structure Plan adopted under the same name (See [Figure 6](#)). Over the last 20-30 years the precinct has been characterised by the emergence of industrial type uses along Cutler Road of which provides a distinct northern edge for the precinct. Three of five PTA commuter car parks are located within the immediate eastern edge of the train station, along Knock Place with the remaining two being located within the Town Centre, located west of the Cockburn Train Station.

Large format retail fronts Verde Drive within the eastern portion of the Structure plan area, while the remaining central area is characterised by warehouse light and service industry type uses. A significant amount of land within private and state government ownership remains undeveloped between Solomon Road and the Kwinana Freeway.

There is no residential development located within the Structure Plan area despite being within the 400-800m catchment of the Cockburn Train Station however recognising this omission can be attributed in part to the surrounding incompatible industrial type land uses and the overarching Industrial zone within the Metropolitan Region Scheme.

While this mixture of land uses has provided important employment opportunities within the eastern portion of the Activity Centre, it represents low scale developments and poor pedestrian amenity and connectivity issues with surrounding areas. The precinct requires direction that will facilitate the precincts transition over the long term towards appropriate land use and functions for a precinct located within the core area of a Secondary Activity Centre.

Figure 2: Local Context

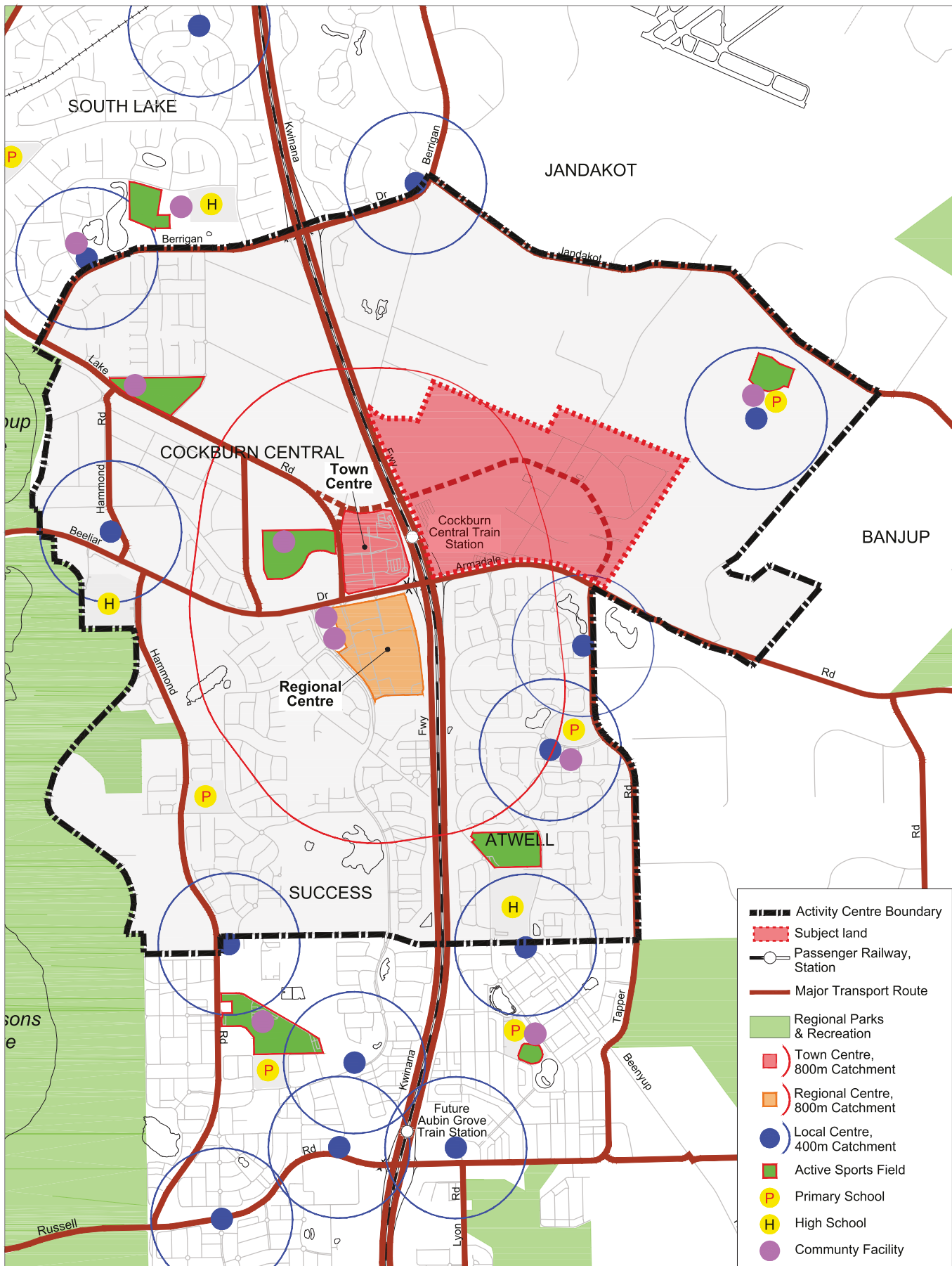
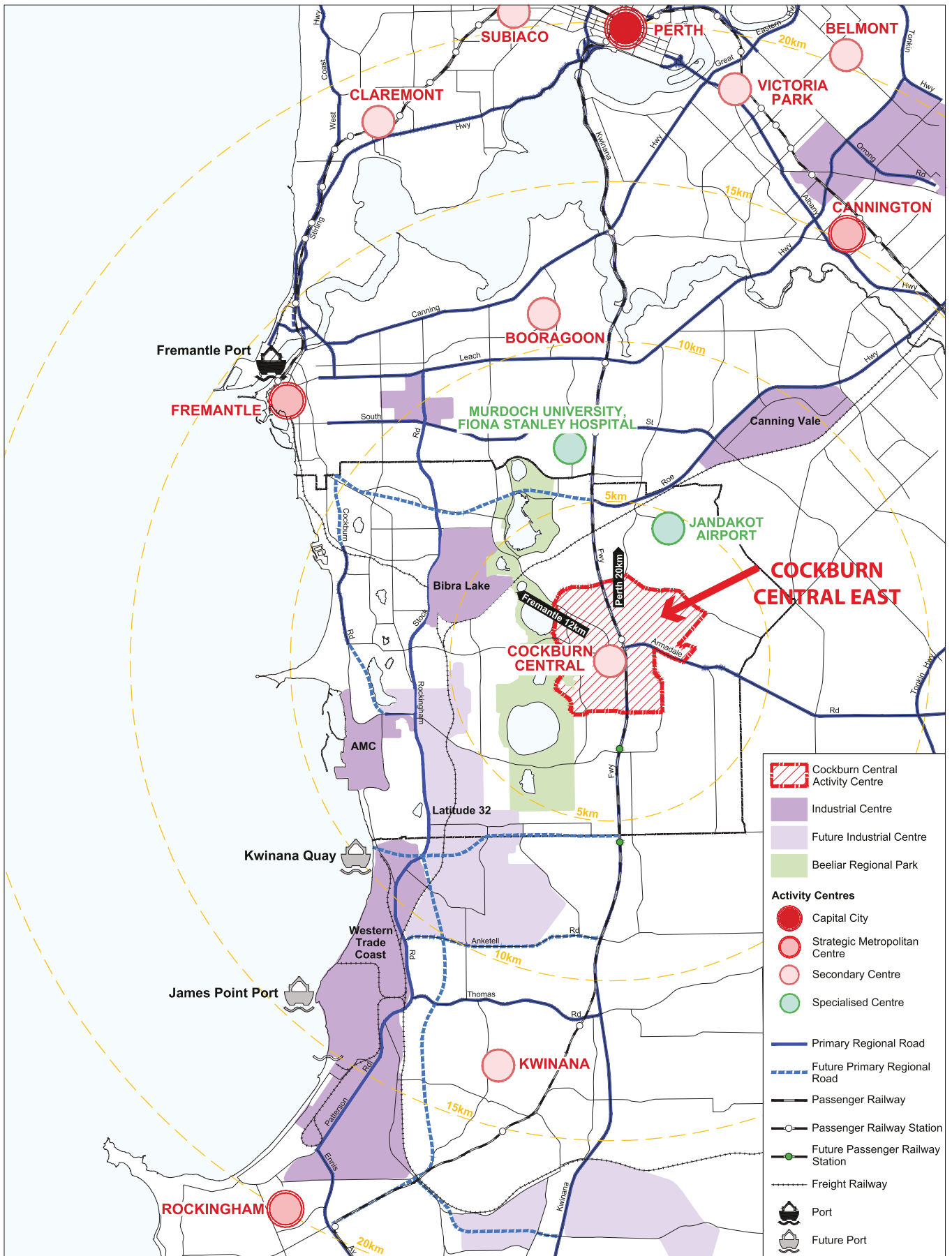


Figure 3: Regional Context



## 3 PLANNING FRAMEWORK

### 3.1 ZONING AND RESERVATIONS

#### 3.1.1 METROPOLITAN REGION SCHEME

The Metropolitan Region Scheme (MRS) is the overriding statutory land use planning scheme for the Perth Metropolitan Region. The MRS provides the statutory basis for land use and development and identifies land use patterns based on broad zones and reservations. The MRS provides the strategic direction for local planning schemes which are required to be aligned to the MRS in terms of planning controls at the local level.

Under the MRS a significant portion of the Structure Plan area is zoned 'Industrial'. Verde Drive is reserved as 'Other Regional Roads', Lot 500 Armadale Road and the existing PTA commuter car park located along Knock Place is zoned 'Urban'.

The Structure Plan area to the northeast abuts land zoned 'Urban' within the emerging Calleya Residential Estate. Beyond lots fronting Cutler Road, the industrial zoned land abuts 'Rural – Water Protection' zoned land and 'Public Purposes - State Energy Commission' zoned land.

Armadale Road and the Kwinana Freeway are reserved as 'Primary Regional Road'.

#### 3.1.2 PLANNING CONTROL AREA 122

The Minister for Planning has granted approval to the declaration of a planning control area over land to be protected for the future primary regional road reservation for the Armadale Road deviation (section between Knock Place and Solomon Road, Jandakot).

The purpose of the planning control area is to:

- Allow for the final road design and land requirements to be confirmed prior to a Metropolitan Region Scheme amendment being initiated;
- Facilitate improved land use and transport planning within Cockburn Central; and
- Protect the future Primary Regional Road reservation for the Armadale Road deviation from adverse development outcomes.

Refer [Figure 4](#) – Metropolitan Region Scheme Map.

#### 3.1.3 CITY OF COCKBURN TOWN PLANNING SCHEME 3 (TPS 3)

The Structure Plan area is zoned 'Development' (Development Area 20 – Solomon Road) under the provisions of TPS3.

Surrounding land to the north is zoned 'Industry' and 'Resource'. To the northeast is a 'Development' zone (Development Area 37 – Banjup Quarry redevelopment).

Refer [Figure 5](#) – City of Cockburn Town Planning Scheme No. 3 Map.

Clause 3.2.1 (i) of TPS3 states the objective of the Development Zone is "To provide for future residential, industrial or commercial development to be guided by a comprehensive Structure Plan prepared under the Scheme."

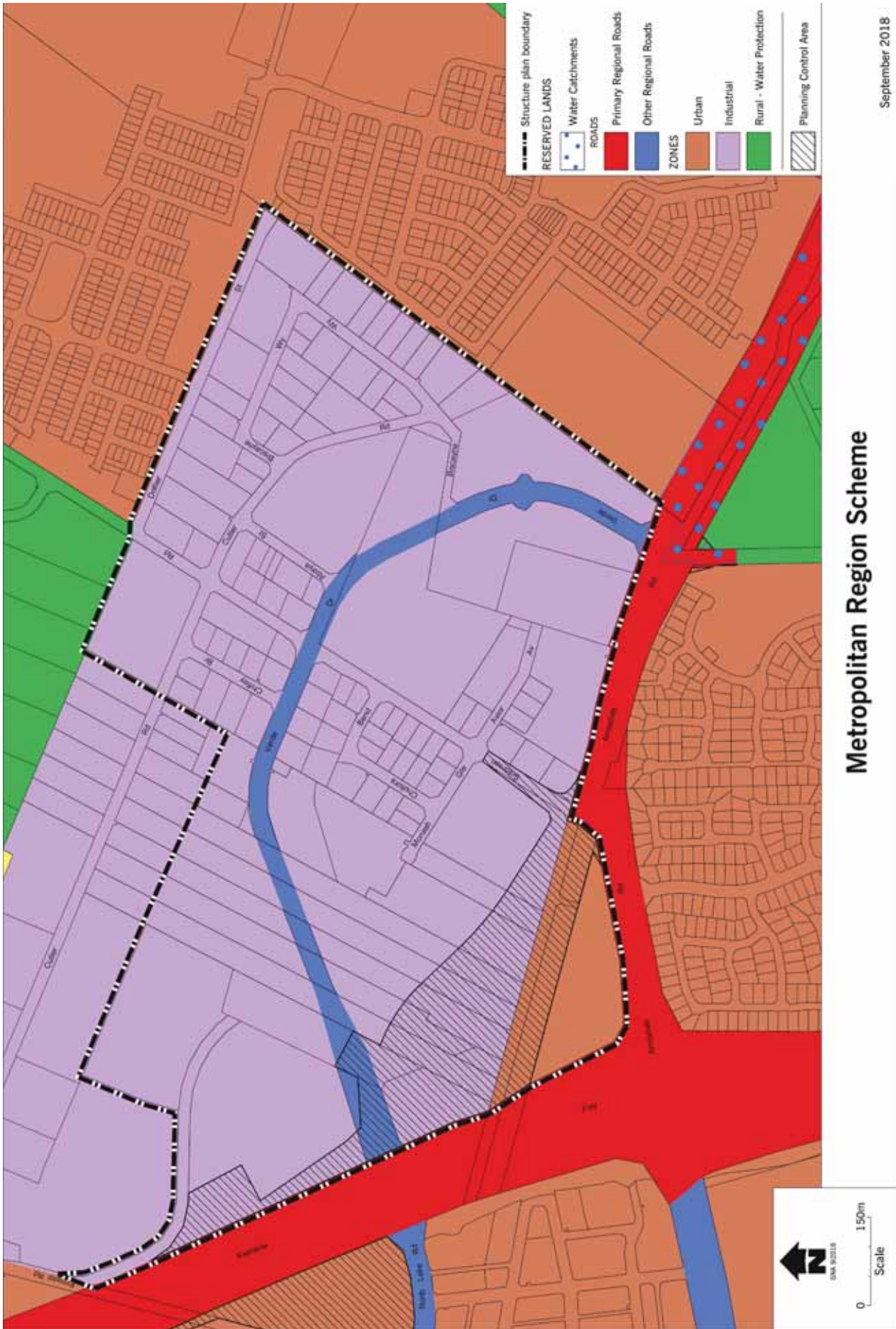
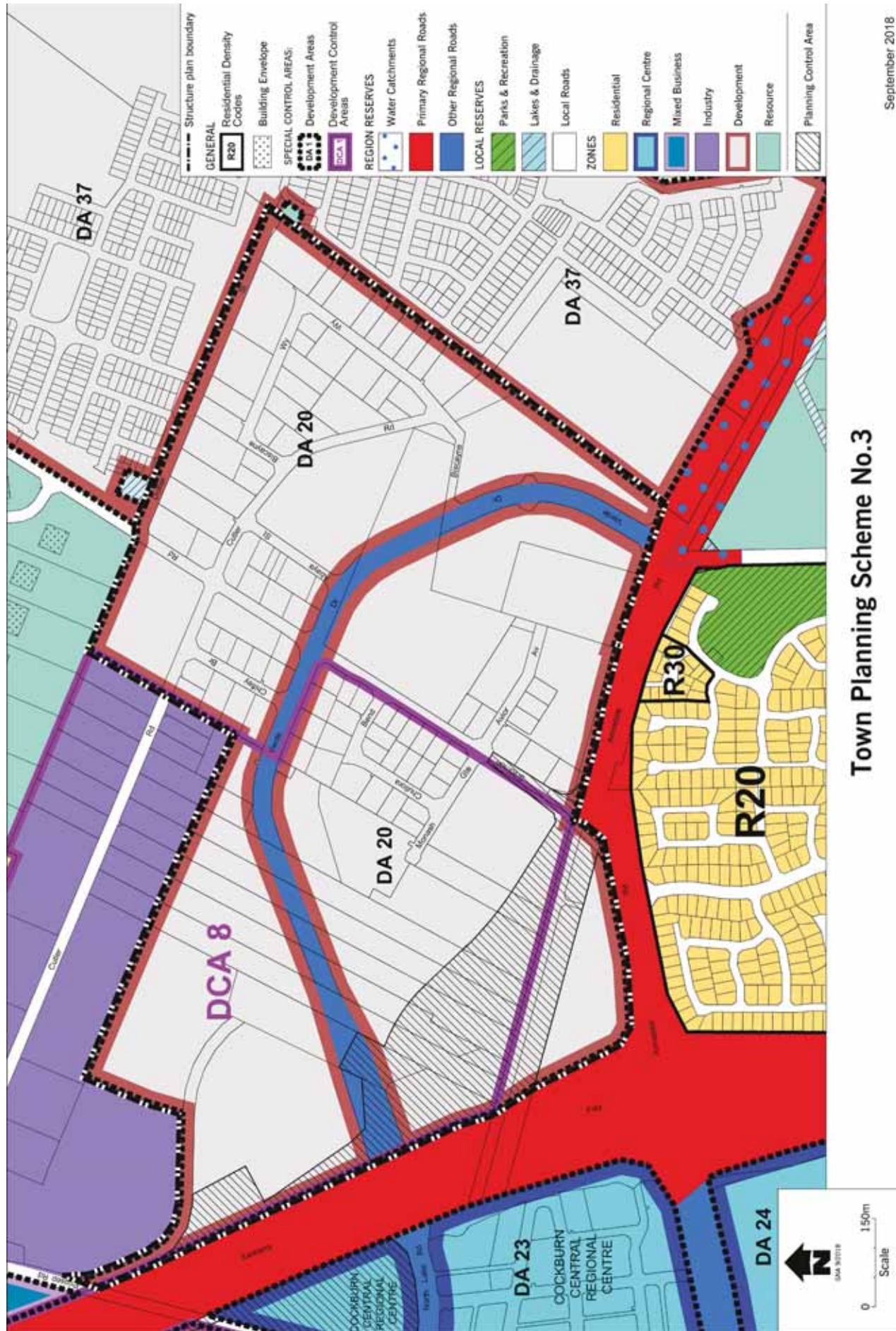


Figure 4: Metropolitan Region Scheme Map (November, 2018)



September 2018

Town Planning Scheme No.3

Figure 5: City of Cockburn TPS 3.

### 3.1.4 SOLOMON ROAD STRUCTURE PLAN (2007)

The Cockburn Central East Structure Plan will replace the Solomon Road Structure Plan of which was prepared several years ago on behalf of landowners to guide land use within Development Area 20. The plan provides for a Light and Service Industry Zone in addition to Mixed business Zones in key 'profile' locations of which were identified as a result of passing trade while seeking to provide an attractive 'face' to development.

Development has responded to this plan within the central and eastern portions of the Structure Plan area and this area is effectively built out with a range of commercial and light industry land uses.

The far eastern end of Verde Drive is characterised by large format bulky good retail developments.

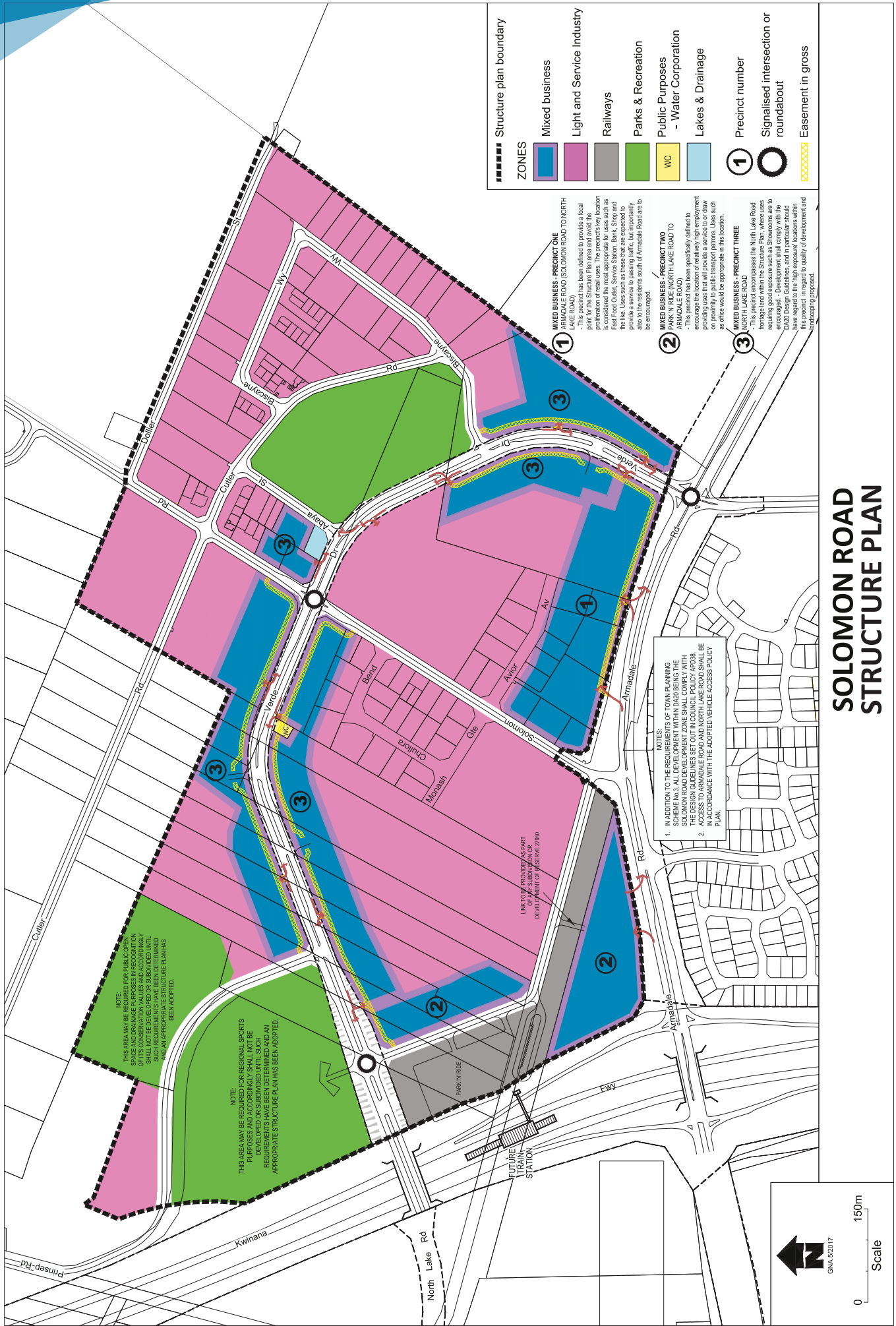
The western portion of the Structure Plan area in contrast is relatively undeveloped, in part due to irregular lot sizes under multiple ownerships, in addition to being constrained by the surrounding industrial uses. The Structure Plan was prepared at a time when significantly large land holdings to the west of the activity centre (the Town Centre and CCW) were yet to evolve and therefore recognising the likelihood of transitioning the precinct to higher uses associated with transit oriented developments would occur over the long term. Also recognised were the existing industry and rural activities being undertaken within the precinct.

Identified within the northwest corner of the Structure Plan area is a Parks and Recreation Reserve notated for a Regional Sportsground. This recognised at the time of adoption that –

“It is understood that the use of this area is currently under review and that the area may revert to industrial purposes. The subdivision of this land does not preclude the subdivision and development of this land for industrial purposes.” (Solomon Road Structure Plan. 2003, p30).

Since this time it has been established this reserve is no longer required given the presence of the Regional Recreation Facility within Cockburn Central West, in addition to the proposed stadium at the time earmarked for the site now being accommodated closer to Perth CBD.

Refer to [Figure 6](#) – Solomon Road Structure Plan



# SOLOMON ROAD STRUCTURE PLAN

Figure 6: Solomon Road Structure Plan (2007)



## 4 PLANNING STRATEGIES

### 4.1 STATE PLANNING STRATEGY

The State Planning Strategy (SPS) provides the basis for the long-term state and regional land use planning within Western Australia. It sets out the key principles, strategies and actions relating to the environment, community, economy, infrastructure and regional development which should guide the creation of State Planning Policy, Regional Strategies/ Frameworks and all future planning decisions.

The SPS identifies planning considerations and approaches that directly relate to Cockburn Central and the subject Structure Plan, including:

- Prioritising infrastructure that contributes to economic and population growth;
- Linking regional economic opportunities with the movement of people, goods and services, and;
- Planning for spaces and places focused on the local economy.

The Structure Plan provides the necessary planning framework to facilitate the Armadale Road and North Lake Road Bridge Interchange Project of which contributes to the long term transitional needs of the precinct, and the wider Activity Centre, and as a result directly aligns with many of the objectives of the SPS.

### 4.2 DIRECTIONS 2031 AND BEYOND - METROPOLITAN PLANNING BEYOND THE HORIZON (AUGUST, 2010)

“Directions 2031 and Beyond” establishes a vision for future growth of the Perth Metropolitan and Peel regions, providing a framework to guide the detailed planning and delivery of housing, infrastructure and services necessary to accommodate growth.

The Strategy identifies Cockburn Central as one of 19 Secondary Centres. The Strategy states that Secondary Centres play an important role in the City’s economy, and are mixed use centres that provide a mix of retail, office, community, entertainment, residential and employment activities and are well serviced by public transport. The purpose of Secondary Centres is to support the communities within their catchments, thereby reducing the requirement to travel outside the locality. Furthermore Directions 2031 promotes a connected city pattern of urban growth of which directly relates to Cockburn Central:

- Developing and revitalising activity centres as attractive places in which to invest, live and work;
- Planning and developing key public transport corridors, urban corridors and transit oriented developments to accommodate increased housing needs and encourage reduced vehicle use;
- Creating and enhancing transport and freight movement networks between activity centres and industrial centres, and;
- Maximising essential service infrastructure efficiency and equity and identifying and prioritising the coordination of projects to support future growth.

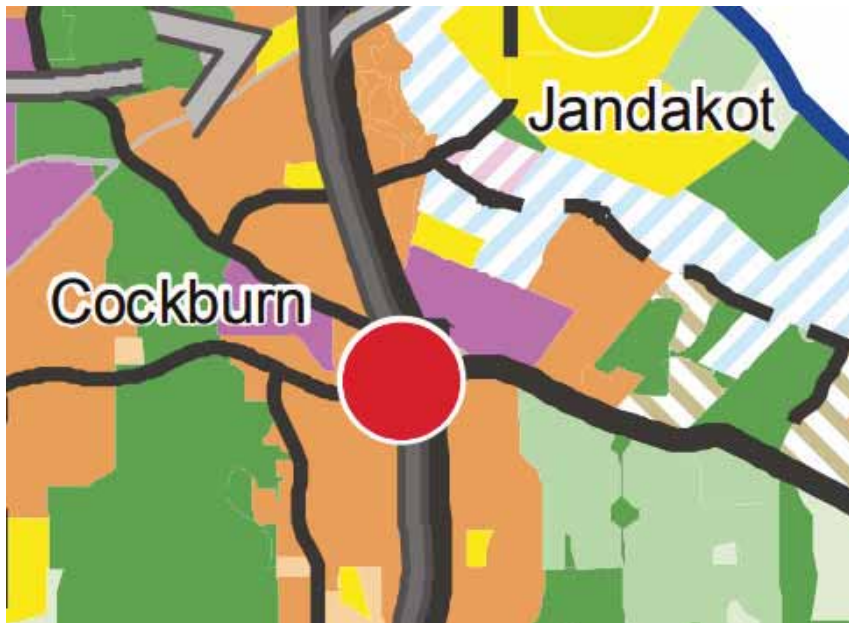


Figure 7: Extract from the South Metropolitan Peel Sub-Regional Planning Framework (2018) identifies no proposed changes to land use - Industrial.

### 4.3 PERTH AND PEEL @ 3.5 MILLION (March 2018)

Perth and Peel @ 3.5 million seeks to build on and extend Directions 2031 in providing an overarching strategic planning framework for the metropolitan Perth and Peel regions, considering an increased population projection of 3.5 million by 2050. The documents include Central, Northwest, and Northeast and South Metropolitan Peel subregional frameworks (discussed below) which provide spatial guidance on where development should occur over the next 35 to 40 years. Relevant to Cockburn Central East is that the framework aims to:

- Achieve a more consolidated urban form;
- Meet long-term housing needs;
- Strengthen key activity centres and employment nodes;
- Facilitate and support a future regional transport network and facilitate the provision of service infrastructure, and;
- Guide the staging and sequencing for future urban development.

### 4.4 SOUTH METROPOLITAN PEEL SUB-REGIONAL PLANNING FRAMEWORK. TOWARDS PERTH AND PEEL @ 3.5 MILLION (March 2018)

The Planning Framework seeks to provide direction for sub regions towards the overarching strategies contained in the overarching Perth and Peel @3.5million report (2015). The high level strategic document identifies Cockburn Central as having the potential to be a key commercial and retail service provider in the sub-region while also leveraging potential synergies with health, sport/recreation and education facilities to become a sports/recreation and health precinct. A key objective into the future is to build on these assumptions and demonstrate how Cockburn Central can also provide strategic employment.

#### 4.5 COCKBURN CENTRAL ACTIVITY CENTRE STRATEGY (July 2016)

The Cockburn Central Activity Centre Strategy (CCACS, July 2016) recognises the severing effect of congestion and inadequate road planning and infrastructure delivery and the resulting negative impacts on the core area of the activity centre and surrounding locality. The CCACS's primary priority action relates to the delivery of the Armadale Road and North Lake Road Bridge Interchange Project. The alleviation of traffic congestion in the core area is seen as essential to provide for improved amenity, function and opportunities to transition developments over the long term within the relatively young activity centre.

The CCACS identifies the Activity Centre is tracking to meet land use targets set by State Planning Policy 4.2 (SPP4.2) relating to land use diversity and density. The exception is the need to plan for and attract strategic employment; particularly where it can support knowledge intensive jobs that support the City's six key strategic industries.

Specifically, the CCACS identifies structure plan requirements for the Cockburn Central East precinct to; address movement network requirements, consider long term land use transition needs, support local businesses while also encouraging a range of complimentary business and office type services, and investigate opportunities to transition the precinct over the long term to accommodate residential development.

#### 4.6 ECONOMIC AND EMPLOYMENT LANDS STRATEGY: NON HEAVY INDUSTRIAL, PERTH METROPOLITAN AND PEEL REGIONS (April 2012)

The WAPC's Economic and Employment Lands Strategy (EELS) was prepared in response to the ongoing pressures of industrial land supply in the Perth metropolitan market and to ensure that industrial land constraints and shortages such as those that occurred in the mid-2000s did not reoccur. The primary aim of the EELS is the adequate provision of land over the next 20 years within the Perth Metropolitan and Peel region for the purposes of employment generating activities (industrial and commercial land uses), with identification of land that is suitable for non-heavy industrial activity in the long term, and strategies to address land supply constraints.

The EELS identifies the southwest sub region is the location of significant industrial and employment land including Jandakot Airport and Jandakot City, and the Western Trade Coast comprising Latitude 32, Kwinana Industrial Core, the Rockingham Industrial Zone and the Australian Marine Complex precinct at Henderson. However despite these areas, the EELS identifies the need to retain all Industrial zoned land of which includes land currently zoned industrial within the Solomon Road Industrial area. This is despite the Solomon Road Industrial land being located within the 800m catchment of the Cockburn Train Station and within the core and frame area of the Secondary Activity Centre. The need to provide and protect industrial land, as expressed in the EELS, is to be balanced against State Government aspirations set out within State Planning Policy 4.2 Activity Centres for Perth and Peel which seeks to consolidate mixed use developments within and in close proximity to activity centres.

Previous correspondence has occurred between the City and the DoPLH regarding this position given the City continues to believe that the land in question, the Jandakot and Solomon Road industrial areas hold significant strategic importance to the future prosperity of the Activity Centre. This is particularly the case with the Solomon Road Industrial Area which contains significant largely vacant industrial land within walking distance of the Cockburn Central Train Station.

The City is aware of the EELS and its general assumption that existing industrial zoned land will remain as that. Therefore the City will work to identify landholdings within the City that are suitable to replace any lost industrial zoned land to support any proposal that seeks to amend the Industrial Zone in the MRS.

#### 4.7 STATE PLANNING POLICY 4.2 ACTIVITY CENTRES FOR PERTH AND PEEL

The WAPC's State Planning Policy 4.2 – Activity Centres for Perth and Peel (SPP 4.2) specifies the broad planning requirements for the planning and development of new activity centres and the redevelopment of existing centres in the Perth and Peel region. It mainly concerns the distribution, function, broad land use, urban design criteria and coordination of land use and infrastructure.

The Cockburn Central East Structure Plan reflects the aims of SPP 4.2 where it currently can, given the constraints relating to industrial developments existing within the area as mentioned above. The Structure Plan supports the transit oriented vision for Cockburn Central and the core aims of SPP4.2 by recognising the elements that can be delivered now and what needs to occur over time with regards to land use planning for future population needs in terms of access to services, facilities and employment.

#### 4.8 STATE PLANNING POLICY 5.4 – ROAD AND RAIL TRANSPORT NOISE AND FREIGHT CONSIDERATIONS IN LAND USE PLANNING

The WAPC's State Planning Policy 5.4 – Road and Rail Transport Noise and Freight Considerations in Land Use Planning (SPP 5.4) applies to proposals for new noise sensitive developments, new railways or major roads, major redevelopments of existing railways or major roads, and new freight handling facilities.

MRWA will be required to respond appropriately to the provisions of SPP5.4 through the provision of noise and vibration surveys for the Armadale Road and North Lake Road Bridge and address any potential impacts on surrounding sensitive residential uses, of relevance is the residential development located to the south of Armadale Road. Noted is that there are no sensitive land uses proposed within the Cockburn Central East Structure Plan with the exception of Lot 500 and Knock Place (See [Section 6.3 and 6.4](#)).

Any subdivision and/or development application proposing sensitive land uses in the Structure Plan area, noting these are non-preferred for the majority of the Structure Plan area, must address the requirements of State Planning Policy 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning.

## 4.9 STATE PLANNING POLICY

### 2.3 JANDAKOT GROUND WATER PROTECTION

The Jandakot Groundwater Protection policy aims to protect the Jandakot Groundwater Protection Area from development and land uses that may have a detrimental impact on water resource. Land use planning within this policy is guided by 3 priority areas. The eastern portion of the structure plan area is identified as being within the P3 area (manage risks). The acceptability of land uses in the Urban and Industry zones that are classified as Priority 3 (P3) is based on the objective of risk management. P3 areas provide for a range of urban, commercial and light industrial uses. Key elements in the protection of P3 areas include the need for reticulated sewerage and implementing best management practices.

Water Quality Protection Note No 25 identifies Industrial and commercial uses are mostly acceptable in P3 areas however noting the uses provided for under the Mixed business Zone are compatible with the acceptable uses within the P3 area.

Furthermore it is also recognised the land use changes proposed are located in the western portion of the Structure Plan area of which is not located within the Jandakot Water Pollution Control Area Boundary.

## 4.10 DEVELOPMENT CONTROL POLICY DC1.6 - PLANNING TO SUPPORT TRANSIT USE AND TRANSIT ORIENTED DEVELOPMENT

The WAPC's Development Control Policy DC1.6 – Planning to Support Transit Use and Transit Oriented Development (DC 1.6) seeks to maximise the benefits to the community of an effective and well used public transit system by promoting planning and development outcomes that will support and sustain public transport use.

This policy applies to all areas of the State, within transit precincts as defined under the policy, and is intended to inform government agencies, local government, landowners and prospective developers of the policy approach which will be applied by the WAPC.

Collectively through the steering group process, the City has collaborated with MRWA, the PTA and Transperth to ensure transit oriented objectives are achieved including the provision of transit facilities and bus, pedestrian and cyclist access. A key outcome built into the Structure Plan is promoting a street network that facilitates strong accessibility to the train station noting also the Station Access Strategy prepared by PTA for the Cockburn Train Station of which was undertaken concurrently with the preparation of the Structure Plan.

The requirements of [Table 3](#) are a direct response to this policy.

## 5 SITE CONDITIONS AND CONSTRAINTS

### 5.1 BIODIVERSITY AND NATURAL AREAS ASSETS

#### 5.1.1 FLORA AND VEGETATION

The fauna and vegetation values of the site were reviewed by Focused Vision Consulting with the findings consolidated into the report at [Appendix 2 – Cockburn Central East Local Structure Plan Area, Level 1 Flora and Fauna Assessment \(November 2016\)](#).

The Level 1 Assessment includes an additional area outside the subject structure plan area relating to Lot 9500 Kentucky Court of which is excluded from this discussion given it does not form part of the Structure Plan area.

A desk top review in addition to a field survey conducted by Focused Vision on 27 and 29 September 2016 identified five intact and three degraded vegetation communities. These include four woodlands, two woodland/wetland vegetation types, one heath and one degraded community/habitat which are a mosaic of shrublands (mostly introduced/non-endemic shrubs) and grasslands (introduced grasses/weeds).

The condition of the vegetation was found to range from rating 3 - 4 (Good to Very Good) to rating 7 (Completely Degraded). The majority of the study area is considered to be in 'Degraded' to 'Good' condition.

Vegetation rated 'good' to 'very good' exists predominantly over:

- Lot 802 Prinsep Road – Also the location of a multiple use dampland;
- Lot 800 Prinsep Road – An undeveloped 7.5 hectare site located adjacent to the Kwinana Freeway under Western Australian Planning Commission ownership.
- Lot 14 Knock Place – Northern portion of lot.

The results of the 2016 study identified that the site provides suitable habitat for the *Caladenia huegelii* species, and therefore *Caladenia huegelii* may be

present within the study area. As a result a spring survey was conducted in September 2017. The results identify - no flowering *Caladenia huegelii* individuals were observed or recorded during the September 2017 survey conducted within areas of suitable habitat within the CCE LSP study area. Two *Caladenia* were observed during the survey; *Caladenia flava* and *Caladenia longicauda*. These two species are very common in the south-west of Western Australia and are of no conservation significance. The 2017 Spring Survey is provided as an addendum to the Flora and Fauna study at [Appendix 2](#).

ADPaW database search for Threatened and Priority Ecological Communities within a 5 km buffer of the study area was requested on 20 September 2016. Results of search 15-1216EC showed that the recently listed Endangered ecological community of Commonwealth significance, Banksia Woodlands of the Swan Coastal Plain occurs within the study area.

Banksia Woodland is mapped as occurring across patches of the Structure Plan area, mapped from 'degraded' to 'very good'. Banksia woodland mapped 'very good' is present over Lot 800 Prinsep Road and Lot 802 Prinsep Road.

It is noted the City received confirmation from Department of the Environment and Energy (DotEE) on 18 November 2016 that the Structure Plan does not require referral under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act), however any development seeking to clear this vegetation, for example the construction of a road and/or subdivision, may have potential to impact on matters protected under the EPBC Act. As a result should the areas within the Structure Plan area be developed by other parties, these parties should be made aware of their obligations under the EPBC Act. Accordingly offset requirements may be required. A copy of this correspondence can be provided upon request from the City.

## 5.1.2 STRUCTURE PLAN DESIGN CONSIDERATIONS FOR VEGETATION RETENTION

The Structure Plan design has considered where possible the retention of vegetation. The design incorporates the retention of all vegetation over Lot 802 Prinsep Road including the preservation of the multiple use dampland. Furthermore, Prinsep Road in addition to the Verde Drive extension is aligned to reduce impact on vegetation.

It is also recognised that given the central location of the Structure Plan area – located within the 800m catchment of a Secondary Activity Centre that it is unlikely all vegetation will be retained over Lot 801 Prinsep Road. The Structure Plan seeks to maximise development opportunities within proximity to the Cockburn Train Station to achieve strategic land use objectives including the delivery of a range of uses including employment adjacent to the Cockburn Train Station. Nonetheless when land including the 7.5 hectares site of Lot 801 Prinsep Road is subdivided, consideration should be given where possible to retain vegetation, again noting the requirement at such time to address obligations under the EPBC Act.

## 5.1.3 FAUNA

Evidence of Threatened Black-cockatoos (Carnaby's Black-cockatoo and Forest Red-tailed Black cockatoo) was recorded during the site survey, including a direct sighting of Forest Red-tailed Black-cockatoos overflying the site and evidence of both species feeding on native tree fruits. Consistent with the advice received regarding the clearing of Banksia Woodland, DotEE advise that development of the structure plan itself would not require referral. Referrals will be required at the point in the development process when clearing is proposed.

## 5.1.4 TOPOGRAPHY, LANDFORM AND SOILS

The Study Area is generally flat with low lying regions in the central bushland areas. The southern region of the site between Kwinana Freeway and Armadale Road has a slope of 1.2% towards the centre.

The Study Area is situated within the Swan Coastal Plain system underlain by Bassendean Sands. Bassendean Sand (S8) described as very light grey at surface, yellow at depth, fine to medium-grained, sub rounded quartz and moderately well sorted are found across the north-western extents of the Study Area as well as large swaths of the south-western, southern and eastern extents.

The central region of the study area, extending from the western to northern extents is mainly composed of Bassendean Sand (S10) which is as S8 with a relatively thin veneer over strong, blocky, brown silts and clays. Parts of the north-western and north eastern extents are composed of sandy silt (Ms5) which are dark brownish grey silts, with disseminated fine-grained quartz sand, with firm, variable clay content.

The Study Area is mapped as mostly having a moderate to low risk of Acid Sulphate Soils (ASS) occurring within 3 m of natural soil surface or deeper, with hotspots of high to moderate risk in the north-eastern and north-western portion of the Study Area. The ASS map is shown on [Figure 4](#) in [Appendix 3](#). The LWMS recommends that an Acid Sulphate Soil investigation be undertaken across the site prior to construction activities and if required an Acid Sulphate Soils and Dewatering Management Plan (ASSDMP) be prepared for the site prior to construction works.

Urban Water Management Strategies will be implemented in accordance with the Local Water Management Strategy prepared by Cardno (28 July 2017). This prescribes water conservation strategies as well as mechanisms to protect hydrological characteristics on the site. For further details refer to [Appendix 3](#) – Local Water Management Strategy.

## 5.2 HYDROLOGY

The Study Area is located in the Swan Coastal Plain and lies on the northern reaches of the Coastal Peel-Harvey catchment. There are no natural surface water drainage lines located within the Study Area.

The current developed commercial area currently drains to a drainage basin and also a central wetland for stormwater treatment and retention. Due to the Study Area being underlain by sandy soils, runoff from hardstand areas drain into these areas for infiltration and groundwater recharge.

There are three aquifers of significance underlying the Study Area: each assigned the name of the major geological unit containing it. In order of depth from natural surface, they are:

- Superficial Aquifer (known as Jandakot Mound) (unconfined)
- Leederville Aquifer (Confined)
- Yarragadee Aquifer (Confined)

## 5.3 WETLANDS

Geomorphic Wetlands of the Swan Coastal Plain (DEC, 2012) indicate a Multiple-Use category wetland is present extending across the northern portion of the Structure Plan area and a Resource Enhancement Wetland is located in the eastern portion of the Study Area.

The Structure Plan is designed to retain the wetland located over Lot 802 Prinsep Road, noting the low point provided by the wetland will be utilised for an overflow flood storage area. The wetland design aims to create flood storage in an informal manner, minimising formal drainage basin areas by using the existing low point.

The Structure Plan proposes no change or impact to the Resource enhancement Wetland located in the eastern portion of the Structure Plan area, along Verde Drive.

## 5.4 BUSHFIRE MANAGEMENT

This Structure Plan is supported by a Bush Fire Management Plan (BFMP) at [Appendix 5](#), Including

a Bushfire Hazard Level (BAL) Assessment.

The BFMP recognises a significant portion of the Structure Plan area is already developed and that a subdivision plan is not yet identified for several lots including lots located towards the Freeway and west of Verde Drive.

Also noted is that residential uses are a restricted use across the Structure Plan area with the exception of Lot 500 Armadale Road.

As a result the BFMP provides a BAL contour plan on page 36 to guide subsequent developments of which will require a further BFMP to identify BAL ratings for lots yet to be identified at subsequent subdivision/development stages. This includes in particular Lot 800 Prinsep Road.

It is recognised that most vegetation will be cleared in the western portion of the Structure Plan area with the exception of Lot 802 Prinsep Road.

DFES formally responded to the BFMP in November 2018 initially stating the BFMP had insufficient information regarding intended lot details and BAL rating details. However further discussions with DFES recognised the following provided on page 38 of the BFMP -

The final lot layout for the proposed structure plan amendment is not known and therefore BAL ratings for future lots is not possible. However, the BAL Contour Map can be used as a planning tool for the design and location of future lots.

The BAL Contour Map assumes that all vegetation within the Cockburn Central East Structure Plan will be managed to a low bushfire threat state, with the exception of the two proposed Parks and Recreation areas.

Vegetation areas external to the structure plan boundaries are adopted and used in generating the BAL Contour Map. These areas of vegetation will affect subdivision design in their immediate vicinity. Some of these areas may be developed in the future.

Special attention should be taken when designing subdivisions abutting the two Park and Recreation Reserves to ensure that future lots can attain an acceptable BAL rating.



## 6 STRUCTURE PLAN STRATEGY

The strategy for the Cockburn Central East Structure Plan is based on 3 precinct areas. The benefits of the strategy are summarised in [Figure 8](#) and the precincts are illustrated in [Figure 9](#).

### 6.1 PRECINCT 1 – CENTRAL AND EASTERN AREA.

The central and eastern portion of the Structure Plan (See [Figure 9](#)) will retain its principle showroom, warehouse, office and light and service industry land use functions. This position is in recognition of development already delivered within this area, and as a result land use changes for these lots are not proposed, with the designated Light and Service Industry Zone in addition to the Mixed business Zone along key access routes as identified within the current Solomon Road Structure Plan being retained. The exception is for lots located on Verde Drive, between Biscayne Way and Armadale Road where the Mixed business Zone boundary is amended to follow recent changes to lot boundaries.

Sensitive land uses including all Residential Uses listed in the Table 1 – Zoning Table within TPS3 are deemed an 'X' use within the Mixed business Zone and are non preferred (not supported) across the Structure Plan area. The exception is Lot 500 Armadale Road which is zoned Urban within the MRS (discussed further under "Precinct 3" below).

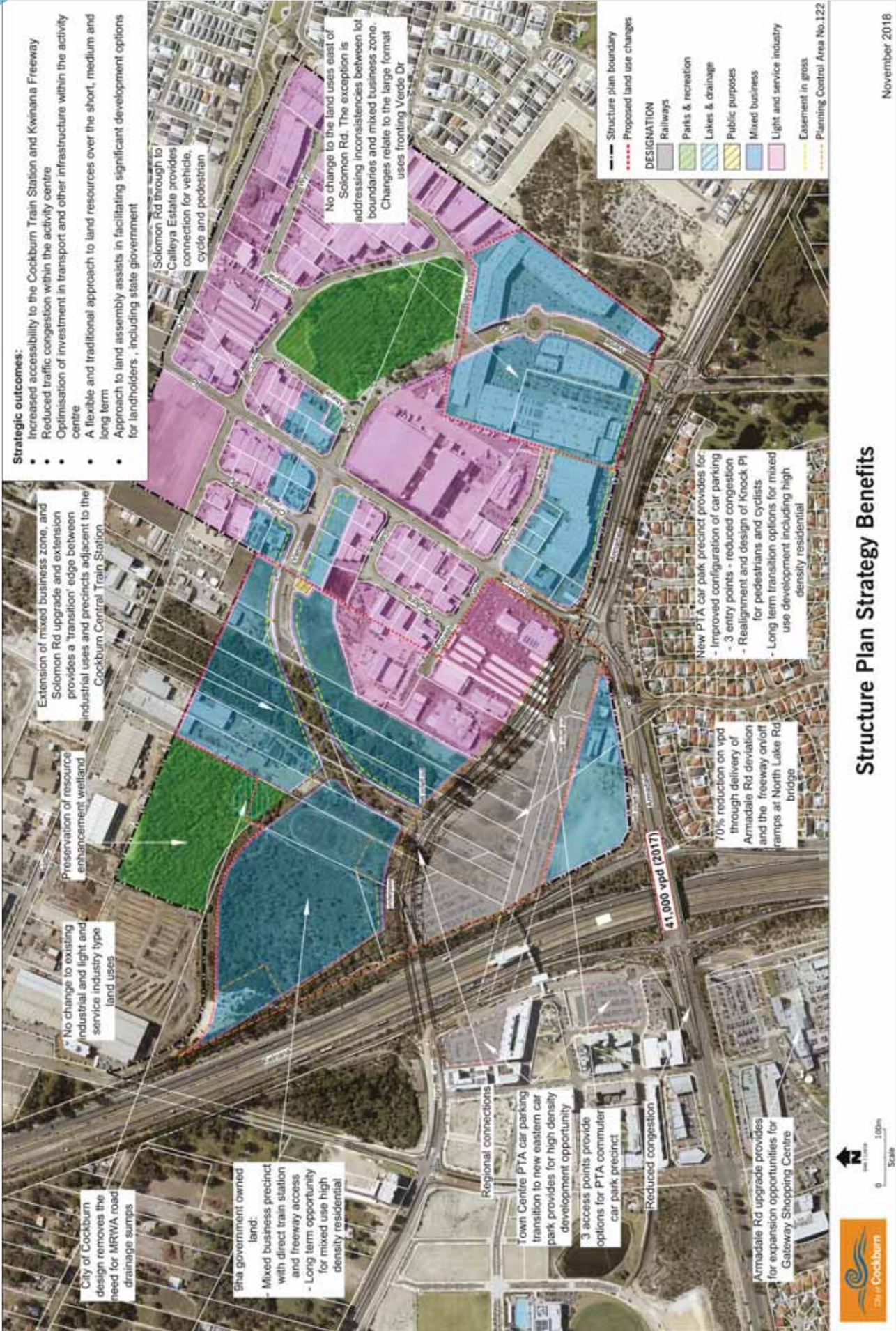
Any amendment to the Structure Plan that contemplates amending land use permissibility for residential uses is contingent upon the Metropolitan Region Scheme (MRS) first being amended to Urban (currently zoned Industrial except for Lot 500 Armadale Road). The MRS amendment will need to consider the form and function of the Cockburn Central Activity Centre at that point in time and address the provision of adequate employment land for the South West Region and the locality,

recognising the objectives of the strategic planning framework.

A minimum lot size of 2,500sqm is required within the Mixed business Zone. The objective of the minimum lot size provision is to provide sufficient land area to provide for functional land use options that can transition over time. This lot size is deemed suitable for a range of warehouse, office and light and service industrial development in the short to medium term, as well as the option to evolve to mixed use development in the long term.

It is recognised lots within Cockburn Central West specifically designed for mixed use high density residential development is consistent with this size. The lot size is also consistent with the average commercial lot - for example Cockburn Business Park. This view is supported within the Market Feasibility Assessment, of which analysed several case studies, undertaken by Colliers and provided at [Appendix 1](#).

In the long term it is envisaged that Precinct 1 may transition from its current form to accommodate a broader range of land uses, consistent with a mixed use transit orientated development. Long term precinct planning should explore how this transition can be achieved.



**Structure Plan Strategy Benefits**

November 2018

Figure 8: Structure Plan strategy benefits



## Cockburn Central East Structure Plan

November 2018

Figure 9 : Structure Plan precincts

## 6.2 PRECINCT 2 – NORTH-WEST PRECINCT

This precinct is the newly created precinct bound by the extension of Armadale Road, Verde Drive, Prinsep Road and the Kwinana Freeway. The site is mostly under WAPC ownership in addition to one other private landholder. While the 2,500sqm minimum lot size requirement also relates to this precinct given the provision of the Mixed business Zone, the City strongly advocates for the retention of land within this precinct to remain under single/minimal owners or as a collection of super lots. Encouraged is the consideration of options such as ground leases over the short to medium term to activate the use of preserved lands including large format retail/warehouse uses on super lots.

Concurrently with the development approval for the PTA commuter car park, a subdivision application is required to create the local road connecting the PTA commuter car Park through to Prinsep Road. To ensure the local road can service a functional subdivision design for this precinct in addition to providing access to the PTA commuter car park it is recommended the WAPC prepare a subdivision design for the precinct demonstrating a lot layout that provides lots with a minimum 2,500sqm and responding to the opportunities and constraints within the precinct.

Where possible, quality vegetation should be retained however noting the unlikelihood given the opportunities available for this site in such close proximity to the Cockburn Train Station.

In the long term it is envisaged that Precinct 2 will transition into a mixed use transit oriented development. Key to this transition will be the resolution of interface issues with the heavy industrial land uses located to the north. Detailed precinct planning will require the provision of street block sizes and lot dimensions that can support the transition to a mixed use transit oriented development.



Figure 10: Current Public Transport Authority commuter car parks (2018).

### 6.3 PRECINCT 3 - PUBLIC TRANSPORT AUTHORITY COMMUTER CAR PARK PRECINCT

The newly formed precinct bound by the Armadale Road alignment, the Cockburn Train Station and Lot 500 Armadale Road provides the opportunity to consolidate the PTA commuter car parks (Figure 10) including the opportunity to relocate the two PTA commuter car parks out of the Cockburn Town Centre, both currently under a lease until 2031. The relocation of commuter car parking out of the Town Centre will allow for high density residential development of the two lots currently leased to the PTA and under WAPC ownership. Furthermore this will secure the site as a single landholding until such time as the precinct is ready for redevelopment.

While the land amalgamation and acquisition process is not a component of this Structure Plan, the City advises that in certain cases outlined within the Land Administration Act, the holding authority (in this case likely to be the State Government) must grant the former land owner or the legal representative of the former land owner's deceased estate (qualified person) an option to purchase the freehold land that was taken for a public work.

Landowners affected by this proposal are encouraged to investigate their options further with regard to rights and processes under the Land Administration Act.

It is noted the WAPC are currently undertaking an amendment to the Planning Control Area 122 in order to acquire the southern portion of lots under private ownership that are severed by the Armadale Road alignment.

The newly formed precinct addresses the significant accessibility issues currently experienced by commuters accessing the Cockburn Train Station from the east via Knock Place. The newly formed precinct will provide 3 ingress and egress points to the commuter car park and the Cockburn Train Station.

Following approval of the Structure Plan and the resolution of land amalgamation and acquisitions, the PTA will be required to prepare a subdivision and development application for the commuter car park and will need to address the requirements identified in Table 3.

The redevelopment of the proposed precinct is estimated to be able to hold approximately 1500 - 2,000 car parking bays.

It is noted a Station Access Strategy is currently being finalised by the PTA for Cockburn Central and that this document should inform the design of the new commuter car park precinct.

### 6.4 LOT 500 ARMADALE ROAD RESIDENTIAL DEVELOPMENT CONSIDERATIONS

The key planning framework considerations relating to the provision of sensitive land uses are provided at Part 1. It is noted that as a result of development currently being delivered within this precinct, constraints regarding sensitive land use buffers, in addition to market conditions it is unlikely residential development will be proposed for this site in the short term.

## 7.0 SUBDIVISION AND DEVELOPMENT DETAILS

### 7.1 STAGING

The public access easement currently located along the northern side of Armadale Road between Solomon Road and Verde Drive provides public access for businesses located along Armadale Road in order to reduce driveway crossovers along the Primary Regional Road - Armadale Road. The Armadale Road realignment will need to consider the integration of this easement and provide access for all lots currently provided with access from the easement.

LandCorp are required to construct the southern extension of Prinsep Road as per the deed of agreement dated 11 June 2004. The works will be required to integrate and be completed concurrently with Verde Drive. Both road alignments will require completion prior to the completion of the Armadale Road and North Lake Road Bridge Interchange Project.

The City has worked with the PTA regarding the transition and consolidation needs of the Cockburn Train Station commuter car park. [Table 2 and 3](#) identifies staging requirements.

### 7.2 DEVELOPMENT EARTHWORKS

Earthworks will generally only be required on an individual subdivision or development basis and may, where required by a subdivision or development application, include clearing to remove existing structures and vegetation. Earthworks will need to ensure that final lot levels are a minimum of 2 metres from the Maximum Ground Water level. Ground water clearance in addition to drainage requirements are set out within the Local Water Management Strategy at [Appendix 3](#).

### 7.3 STORMWATER AND DRAINAGE

In accordance with current practice, individual developers will be required to provide for stormwater retention and drainage within their individual lot boundaries. Each development will be required to prepare an Urban Water Management Strategy as a requirement of subdivision or development approval of which shall meet the requirements of the LWMS at [Appendix 3](#).

The Cockburn Central Arterial Drainage Report prepared by David Wills and Associates for the City of Cockburn shows a large portion of the subject Structure Plan area across catchment 1 & 2 of the LWMS. The regional drainage network includes the provision of a pipe under the Kwinana Freeway to control the groundwater within the western portion of the Structure Plan area. A review conducted by Cardno, alongside the preparation of the LWMS identified this infrastructure is still required and therefore there is no proposal to amend the Cockburn Central Arterial Drainage Report prepared by David Wills and Associates. As developments are delivered across the Structure Plan area in addition to further detailed drainage requirements at the Urban Water Management Stage future drainage requirements including the need for the pipe will be better understood. Further details are provided within the LWMS at [Appendix 3](#). As a result no change is proposed to Development Contribution Area No.8 of which covers a portion of the Structure Plan area for the collection of contributions towards the Solomon Road Arterial Drainage System.

Earthworks required for the Armadale Road and North Lake Road Bridge Interchange Project are to be addressed within subsequent studies relating to the project by MRWA. Elements of the drainage requirements for the Interchange project have been incorporated into the LWMS at [Appendix 3](#) and upon subsequent planning by MRWA to finalise the road design are likely to require an amendment to the LWMS. The City will seek to address necessary changes during the finalisation of the Structure Plan however should further amendments be required to the LWMS post completion of the Structure

## 7.4 INFRASTRUCTURE COORDINATION, SERVICING AND STAGING

Where development has occurred within the central and eastern portions of the Structure Plan area these lots are connected with services. Undeveloped lots within the western portion of the Structure Plan area will be required to extend and connect services as a condition of subdivision and/or development approval. The presence of services both within the eastern area in addition to the west of Prinsep Road suggest sites can be serviced with electrical, water, sewer, gas, and communications infrastructure.

Existing sewer infrastructure includes a pump station located on Lot 1000 Verde Drive, connecting to existing Water Corporation sewerage infrastructure. Any upgrade requirements will need to be identified by Water Corporation at subsequent approvals for subdivision and/or development.

The Water Corporation advises the structure plan area is covered by the Water Corporation's wastewater conveyance planning.

Wastewater generated in the area is collected and conveyed to the Woodman Point VVWTP for treatment and disposal. The structure plan area is covered by Corporation's Jandakot Sewer District.

The entire structure plan area falls within the Corporation's Thompson's Gravity Water Supply Zone, which is supplied with water from the Thompson's Lake Reservoir.

The 'Future Town Centre Expansion East' and 'Future Town Centre Expansion West' are likely to necessitate reviews of the Corporation's planning to determine if any parts of the existing water and wastewater networks in or adjoining these areas need to be upgraded. Any headworks upgrades required will be funded through the Corporation's capital program. Any upgrades required to the smaller, reticulation sized pipes (generally <300mm diameter) will need to be met by developers.

ATCO Gas has existing High Pressure (DN300ST HP 1900kPa) and (DN100ST HP1900kPa) gas mains and infrastructure within the area of the structure plan and the immediate vicinity.

ATCO Gas also has medium pressure network available to supply industry with gas services. This gas infrastructure will require extending from either Cutler Road or Solomon Road to support further development demands. ATCO Gas requests early consultation with developers and their representatives to discuss gas availability and possible options where common trenching with other service providers can be beneficial.

## 7.5 MOVEMENT NETWORK

A Traffic Impact Assessment (TIA) prepared by GTA Consultants (April, 2017) supports the Structure Plan and is provided at [Appendix 4](#). The TIA focused on the resolving of the local road network within the Solomon Road Development Area, taking into consideration the emerging design and details for the Armadale Road and North Lake Bridge Interchange project and the need to connect with the emerging infrastructure upgrade. It is noted that as far as this Structure Plan and the TIA prepared by GTA is concerned, the alignment and movement network related considerations for the Armadale Road and North Lake Road Bridge

Interchange alignment is set and is addressed separately by MRWA under a separate process.

The TIA was required to explore short-term and long-term scenarios for the Structure Plan area to allow eventually for the transition of residential development over time as follows:

**Short-Term Scenario:** will likely comprise Mixed-business and Light and Service industrial uses, like warehousing, transport and logistics.

**Long-Term Scenario:** will likely include Mixed business Uses (commercial and residential) while phasing out industrial uses, and accordingly transitioning the area over time.

However, it was recognised through the project development that the long-term scenario is likely to have enough capacity to accommodate the road requirements defined by the short-term scenario and consequently facilitate the envisaged transition over time. In accordance, three (3) road layout options were provided by the City for assessment as illustrated below.

## OPTION 1

Exploring the option of upgrading Cutler Road and providing a new connection between Cutler Road and Verde Drive so as to assist in breaking up the long narrow lots currently provided for, as compared to extending Prinsep Road.



## OPTION 2

Does not connect Prinsep Road to Verde Drive. This option is to explore the traffic impacts without a Prinsep Road extension, as there have been numerous complaints from the residences on Prinsep Road to the north regarding large vehicles along this road. As such, it may not be considered desirable by certain parties to encourage further traffic along Prinsep Road of which would result from Options 1 and 3.



## OPTION 3

Opts for the current road reserve which extends existing Prinsep Road from the north-west into the CCE SP area.





## 7.5.1 PROPOSED LOCAL ROAD HIERARCHY AND ROAD UPGRADE CONSIDERATIONS

The resulting 2031 daily traffic flows for each of the three options demonstrated the clear need for option 3 to be adopted as a result of the provision of Prinsep Road assisting in reducing significant traffic numbers from Verde Drive and Solomon Road. Importantly this connection is also required to facilitate connections to and from the northern access to the PTA commuter car park via the proposed underpass. The options and results are discussed at length within the TIA at [Appendix 4](#).

[Figure 11](#) identifies the proposed local road hierarchy as established within the Cockburn Central East Structure Plan TIA at [Appendix 4](#). The local road alignments are essentially already in place with the following actions required upon delivery of the North Lake Bridge and Armadale Road upgrade, noting the requirement to transition over the long term to address the medium to long term traffic forecast figures.

The TIA prepared in support of the Structure Plan (GTA Consultants, April, 2017) identifies the upgrade requirements to the local road network as a result of a redistribution of regional traffic associated with the Armadale Road realignment, the new PTA commuter car park, in addition to the increase of vehicles forecast as being generated from the additional Mixed business Zoned land. Importantly the TIA recognises the aspiration to transition the precinct over the long term to high density mixed use development and therefore has built in the relevant forecasting of traffic counts to ensure road upgrades can address future growth requirements over the long term.

Detailed precinct planning should recognise the urban design and access challenges posed by the Armadale Road and North Lakes Road Bridge Interchange project. Resolution of these issues will be a key objective of long term precinct planning for the area.

Detailed planning should ensure the provision of a comprehensive movement network, including a local road network and pedestrian/cycling paths.

A road upgrade approach will likely occur overtime. Required road upgrades include:

### SHORT TERM

#### THE EXTENSION OF VERDE DRIVE BETWEEN SOLOMON ROAD AND THE REALIGNED ARMADALE ROAD

Ultimately Verde Drive is required to be upgraded to a dual carriageway. However noting that as a result of road reserve constraints including the availability of land within the road reserve at the intersection of Verde Drive and Solomon Road it is likely this will not occur in the short to medium term. Rather Verde Drive West of Solomon Road will mirror the single lane typology currently provided east of Solomon along Verde Drive.

The upgrade west of Solomon Road is required to be designed to a standard expected within a town centre, similar to what is delivered within Cockburn Central West, including the integration of significant street trees along the centre line of the road to act as a transitional element, separating the newly formed Mixed business precinct from industrial and light and service industry type uses currently operating within and around the Solomon Road and Cutler Road area.

## THE EXTENSION OF PRINSEP DOWN TO VERDE DRIVE AND UPGRADE REQUIREMENTS EXTENDING TO BERRIGAN DRIVE

The TIA importantly recognises the necessity to upgrade Prinsep Road so as to reduce the concentration of traffic along Verde Drive and Solomon Road. Without an upgrade to Prinsep Road, daily vehicle trips along Verde Drive and Solomon Road will reach unacceptable levels. As a result the TIA identifies the need to, consistent with the objectives of the existing Solomon Road Structure Plan, connect Prinsep Road with Verde Drive. Additionally, the constructed component of Prinsep Road also requires upgrading. The road design process to follow the Structure Plan will require the consideration of the increased vehicle trips per day along Prinsep Road recognising the noise complaints currently received from residents fronting Prinsep Road and in proximity to the Glenn Iris Golf course. Complaints relate to noise from trucks accessing the Solomon Road Industrial Area. In response the City recognises that while vehicle trips per day will increase, these numbers relate to an increase in cars associated with the PTA commuter car park. Nonetheless the Prinsep Road upgrade design phase should consider a range of options including the benefits associated with a road realignment, a slip lane and/or appropriate levels of landscaping to act as an edge to the residential area, for example.

## SOLOMON ROAD SOUTH OF CUTLER ROAD

Solomon Road requires upgrading consistent with the upgrades currently being delivered to the north of Cutler Road as part of the Calleya Estate.

## MEDIUM TO LONG TERM VERDE DRIVE

Over time the City will be required to monitor traffic levels along the length of Verde Drive and consider the need to upgrade to a dual carriageway.

## 7.5.2 FUNDING CONSIDERATIONS FOR THE ROAD NETWORK

The abovementioned short term road upgrades will be required to be delivered concurrently with the Armadale Road and North Lake Road Bridge Interchange Project of which has an estimated construction commencement date of 2019/2020.

Development Area 20 in the City of Cockburn Town Planning Scheme 3 (TPS3) currently makes provision for landowners whose land is Reserved "Other Regional Road" in the MRS and TPS3 relating to the extension of North Lake Road (Verde Drive) to cede land as a condition of subdivision and to upgrade the land to a two-lane kerbed road. This approach adopted within the current Solomon Road Structure Plan recognises the nexus between development and the need for the road network. Depending on the timing of this work, there may be a requirement for the City to meet some or all of the construction cost elements.

The City will need to continue to work with landowners and WAPC to address the required ceding of land in the context of discussions occurring regarding land amalgamations and acquisition options.

### 7.5.3 CYCLE AND SHARED PATH NETWORK

A pedestrian and cyclist network is proposed within the Structure Plan area, providing a high level of accessibility and permeability for pedestrians and cyclists in accordance with the provisions of Development Control Policy DC1.6 – Planning to Support Transit Use and Transit Oriented Development. The proposed routes are provided at [Figure 12](#). In addition to identifying pedestrian and cycle requirements for the road network are the connections requiring integration into the precinct designs for the PTA commuter car park and the 7.5ha site located to the south of Prinsep Road.

### 7.5.4 BUS ROUTES

Bus routes are currently under investigation with PTA and Transperth. The Banjup Structure Plan initially proposed the bus route illustrated in green within [Figure 13](#). However an alternative route illustrated in orange is being investigated. Considering the Cockburn Central East Structure Plan and the Banjup Structure Plan areas collectively, the City supports the orange and red alignment given the routes alignment through the employment area of Cockburn Central East in addition to still servicing the Banjup residential area.

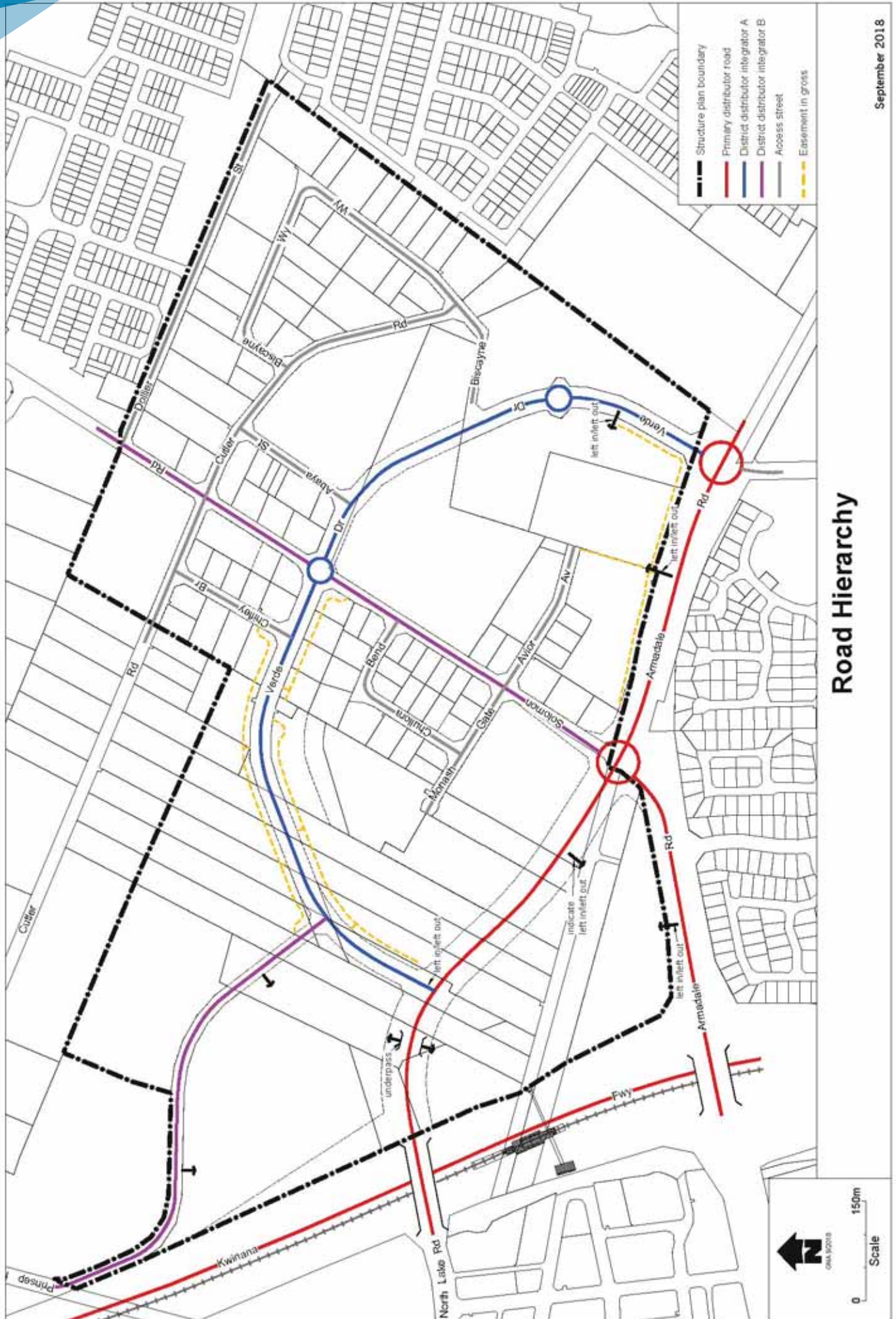
### 7.5.5 ARMADALE ROAD UPGRADE AND NORTH LAKE BRIDGE

A detailed planning study was undertaken by BG&E on behalf of MRWA for the design of the Armadale Road and North Lake Road Bridge Interchange Project Kwinana Freeway to east of the intersection of Armadale Road with Verde Drive/Tapper Road in Atwell.

The design allows for the free-flowing of regional traffic comprising two lanes in each direction from west of the intersection of Solomon Road and

Armadale Road and East of the intersection of Verde Drive/Tapper Road via a trench, with parallel, at-grade surface Collector Distributor (CD) roads (also comprising two traffic lanes in each direction) to provide connection to the local side roads of Solomon Road and Tapper Road/Verde Drive and other designated accesses. The at-grade intersections of the local side roads are configured as 2 lane roundabouts.

In regards to timing and delivery of the local road network Verde Drive, Prinsep road and Solomon Road will require upgrading when the North Lake Bridge and Armadale Road is delivered.



## Road Hierarchy

Figure 11: Road Hierarchy

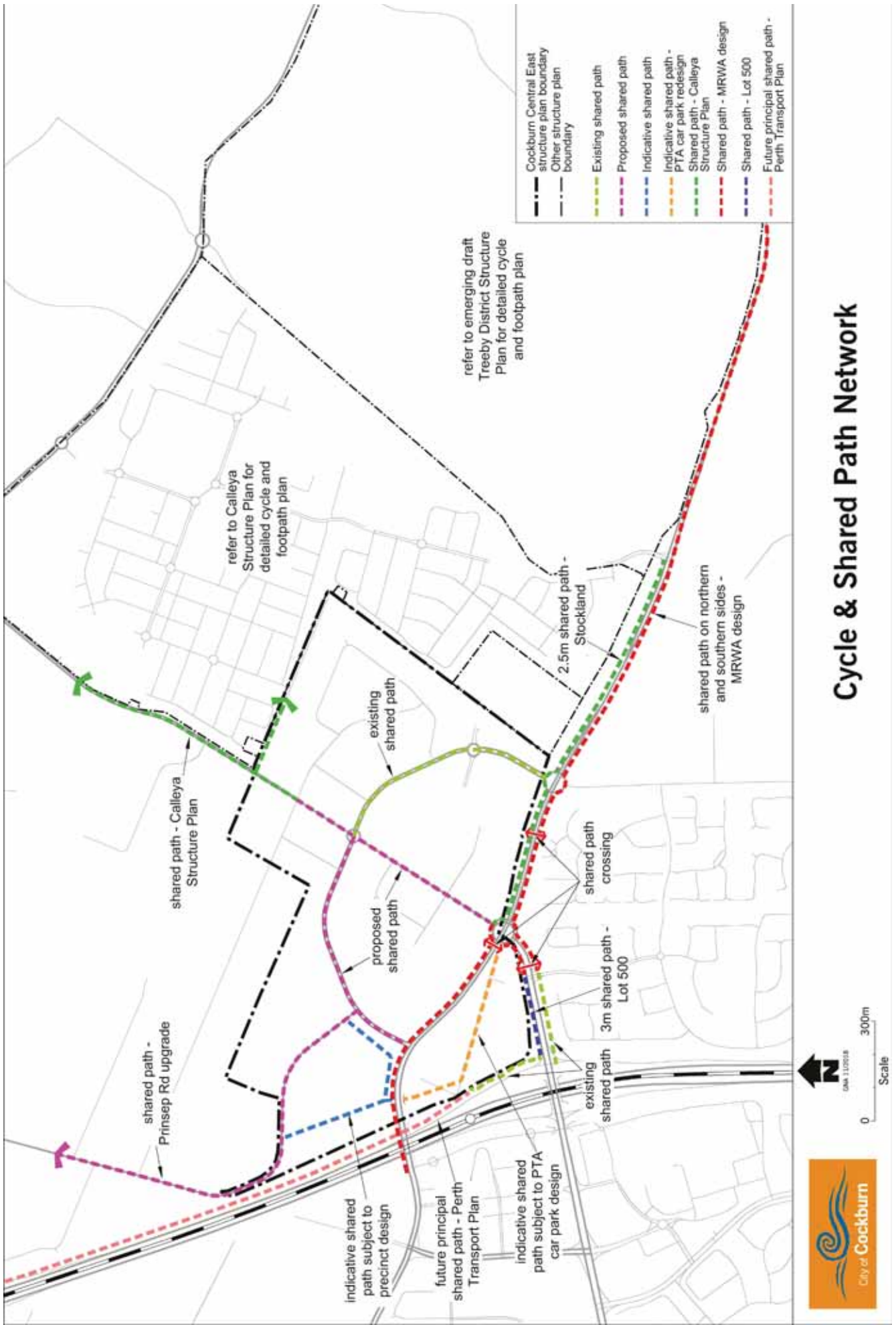


Figure 12: Cycle and Shared Paths

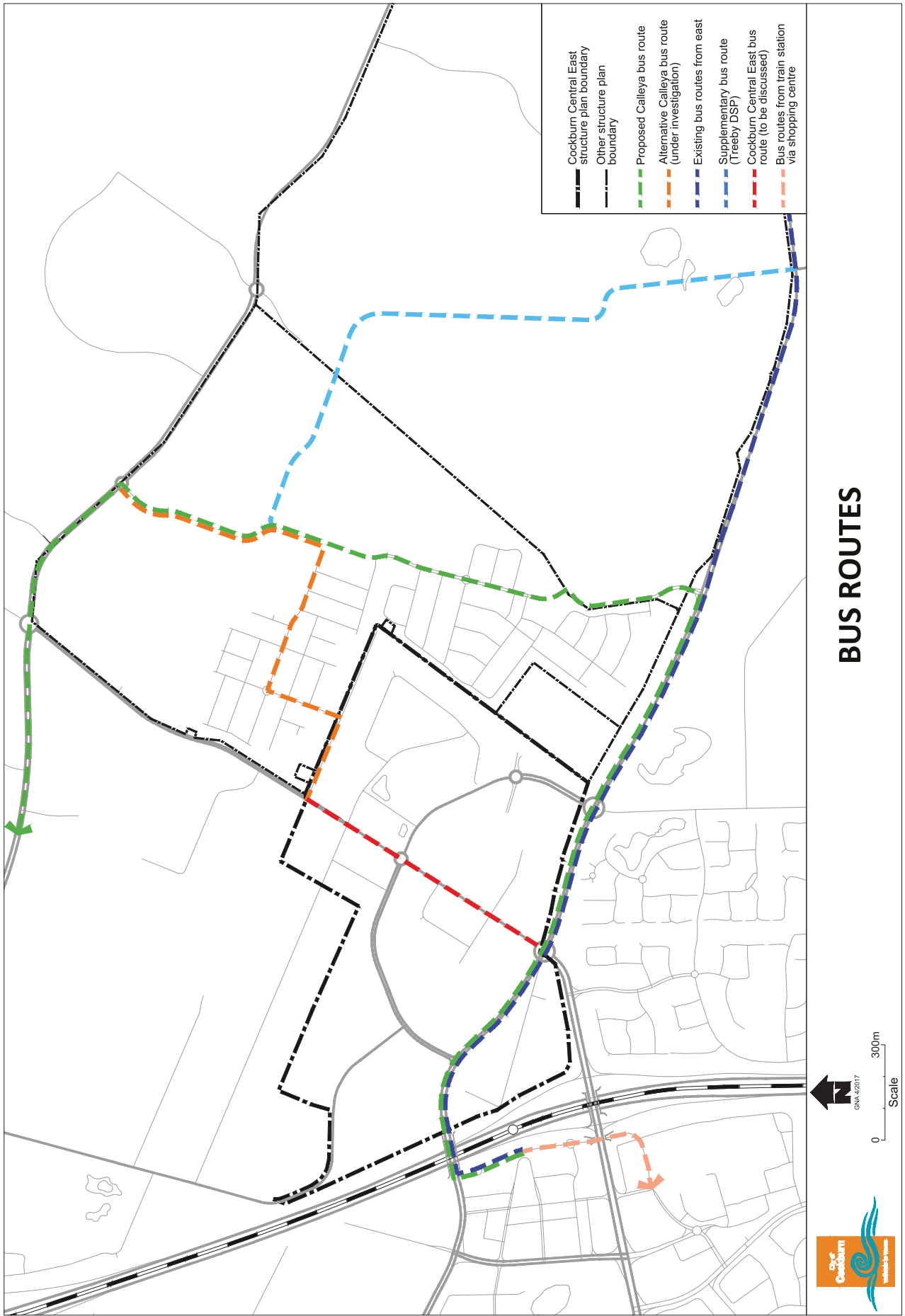


Figure 13: Bus Routes



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