



Department of Planning,
Lands and Heritage



Central Sub-regional Planning Framework

March 2018



The Department of Planning, Lands and Heritage acknowledges the traditional owners and custodians of this land. We pay our respect to Elders past and present, their descendants who are with us today, and those who will follow in their footsteps.

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Central Sub-regional Planning Framework

March 2018



Perth and
Peel@3.5million

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Central Sub-regional Planning Framework

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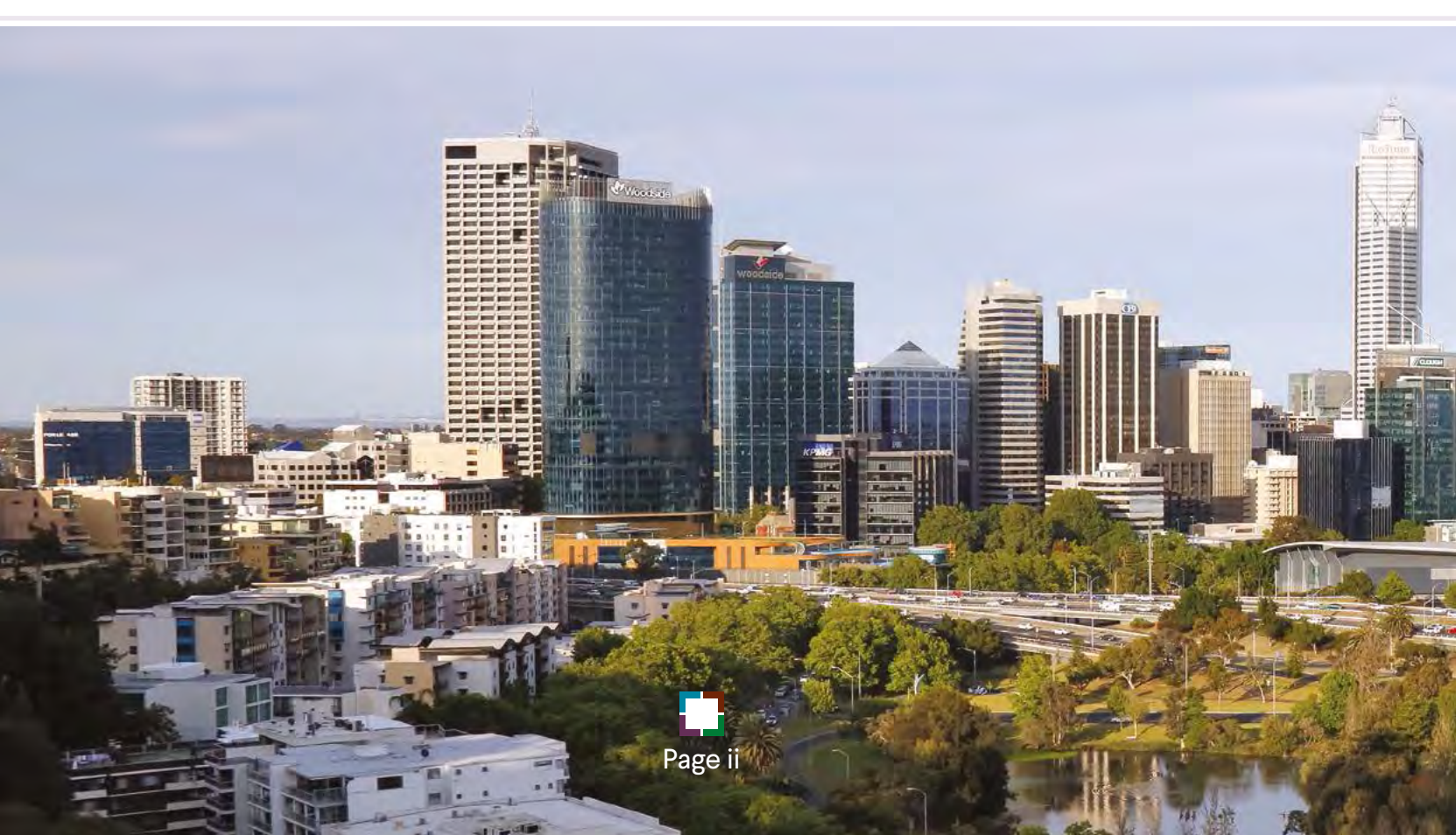
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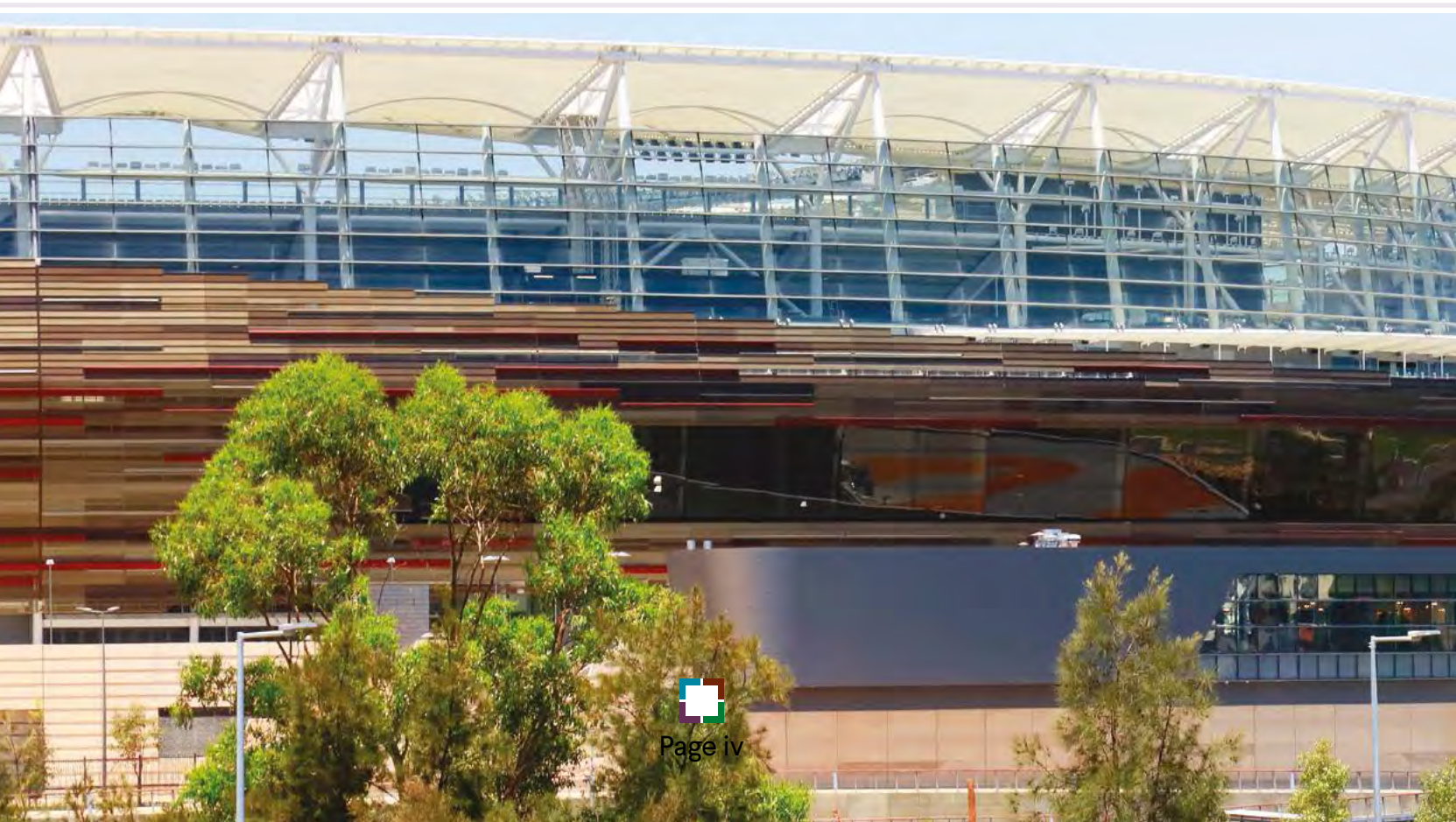
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Foreword by the Minister



Hon Rita Saffioti, MLA
Minister for Transport;
Planning; Lands

I am pleased to release the final *Perth and Peel@3.5million* suite of land use planning and infrastructure frameworks. The Central, North-West, North-East and South Metropolitan Peel frameworks guide the future growth of the Perth and Peel regions as a compact, consolidated and connected city that can accommodate a population of 3.5 million by 2050.

These documents seek to enable the creation of liveable and vibrant communities – suburbs, spaces and places where people want to live, work and socialise.

Where you can go to work close to where you live.

Where you can send your children to a school close to home.

Where you can visit a national park and enjoy our native fauna and flora.

Where you can buy groceries at the local shops, kick a footy at an oval or play in the park, a short walk, drive or bus ride from home.

The frameworks propose an urban footprint to ensure the Perth and Peel regions grow into the communities of tomorrow. They aim to strike a balance between the factors that make a community, from identifying enough land for residential, commercial and industrial development to how to best use proposed and existing social, community and physical infrastructure. This has all been achieved while protecting the regions' significant environmental attributes.

While a substantial volume of work underpins these documents, there is a need for further development of transport networks, including METRONET, and an increased focus on infrastructure-led planning. In this respect, these are not static documents; they will grow and evolve, as the State will, to ensure they continue to be relevant and respond to our changing landscape. They will be continually monitored with an initial review to be undertaken after three years.

Some 800,000 new homes are required to accommodate the projected population growth of 3.5 million by 2050 and this will be delivered through a mix of infill and greenfield development with targets of 47 per cent and 53 per cent respectively.

Good design and amenity is of the utmost importance to creating liveable communities. The State Government is taking a leading role through the development of a new suite of policies that will make sure design is at the forefront of all planning decisions.

Over the next four years, my key priority will be the delivery of METRONET, an integrated and coordinated land use and public transport plan that will connect our suburbs, reduce our chronic road congestion and give Perth the rail system it needs for the future. It will ensure land use outcomes are at the forefront of the design of new infrastructure and lay the groundwork for vibrant new communities.

METRONET will also guide the structural evolution of our city, linking diverse urban centres together for the first time and providing opportunities for greater density and infill development through multiple key suburban centres. It provides tangible form to the sub-regional land use planning and infrastructure frameworks as we prepare for the future.

I would like to thank the Western Australian Planning Commission and the Department of Planning, Lands and Heritage for the hard work involved in developing these documents, as well as everyone who contributed. Your participation will ensure that Perth and Peel will offer dynamic, vibrant and liveable communities that we can be proud of.



Message from the Chairman



Eric Lumsden, PSM
Chairman, Western Australian
Planning Commission

Today we live in a city that was largely planned more than 60 years ago.

The once-in-a-generation *Plan for the Metropolitan region Perth and Fremantle* (1955) - the Stephenson-Hepburn Plan - set out to accommodate 1.4 million people by 2005. This landmark plan provided the basis for the city's current spatial form and introduced many of the elements that define living in Perth and Peel including establishing regional national parks and securing river foreshores and coastal zones for the benefit of all Western Australians. It also initiated a 'corridor' approach for strategic land use planning from the 1970s to the turn of the century.

However, an increasing population has required different land use planning responses, reflected in

strategies such as *Metrolan* in 1990 and *Directions 2031 and Beyond* in 2010. Importantly, assumptions that urban development corridors, fragmentation of rural land and impacts on the natural environment could continue in a 'business-as-usual' approach have been challenged. These elements cannot be considered as economically, socially or environmentally responsible.

The Perth and Peel regions are now going through another critical period of transition. This rapid evolution is clearly evident through significant urban renewal across our capital city and development within the Peel region, home to some of Western Australia's fastest-growing communities.

Now a new strategy will provide guidance for future homes and jobs for an estimated 3.5 million people by 2050; the *Perth and Peel@3.5million* sub-regional land use planning and infrastructure frameworks are the next step in the process towards securing future sustainable, compact and connected development of the Perth and Peel regions.

The frameworks offer an integrated land use and movement network; they provide certainty over land provision and classification; they guide the timing and location of the physical and social infrastructure needed to support new communities; they seek to avoid and protect important

environmental assets; and they reaffirm the need to redress the balance between residential infill and greenfield development.

The frameworks are a comprehensive whole-of-government response to accommodate this unprecedented population increase within a consolidated urban form, informed by extensive collaboration with all relevant State Government agencies, local governments and other key stakeholders. In particular, they align with other key initiatives such as the critical METRONET initiative.

The frameworks are a first step in the ongoing process of refining and detailing planning proposals for Perth and Peel. They will be reviewed after three years and ongoing refinement will continue through local planning schemes and strategies, structure planning, subdivision and development.

The challenge now is to implement the frameworks effectively.

While Government, in conjunction with local government, will take the lead, effective implementation can only be achieved through a whole-of-community commitment. This is critical, as plans are only as good as the will to implement their vision on behalf of communities, now and into the future.



INTRODUCTION

The Central Sub-regional Planning Framework aims to establish a long-term integrated planning framework for land use and infrastructure, with a focus on guiding future infill growth in the Central sub-region



1.1 Framework for a city of 3.5 million people

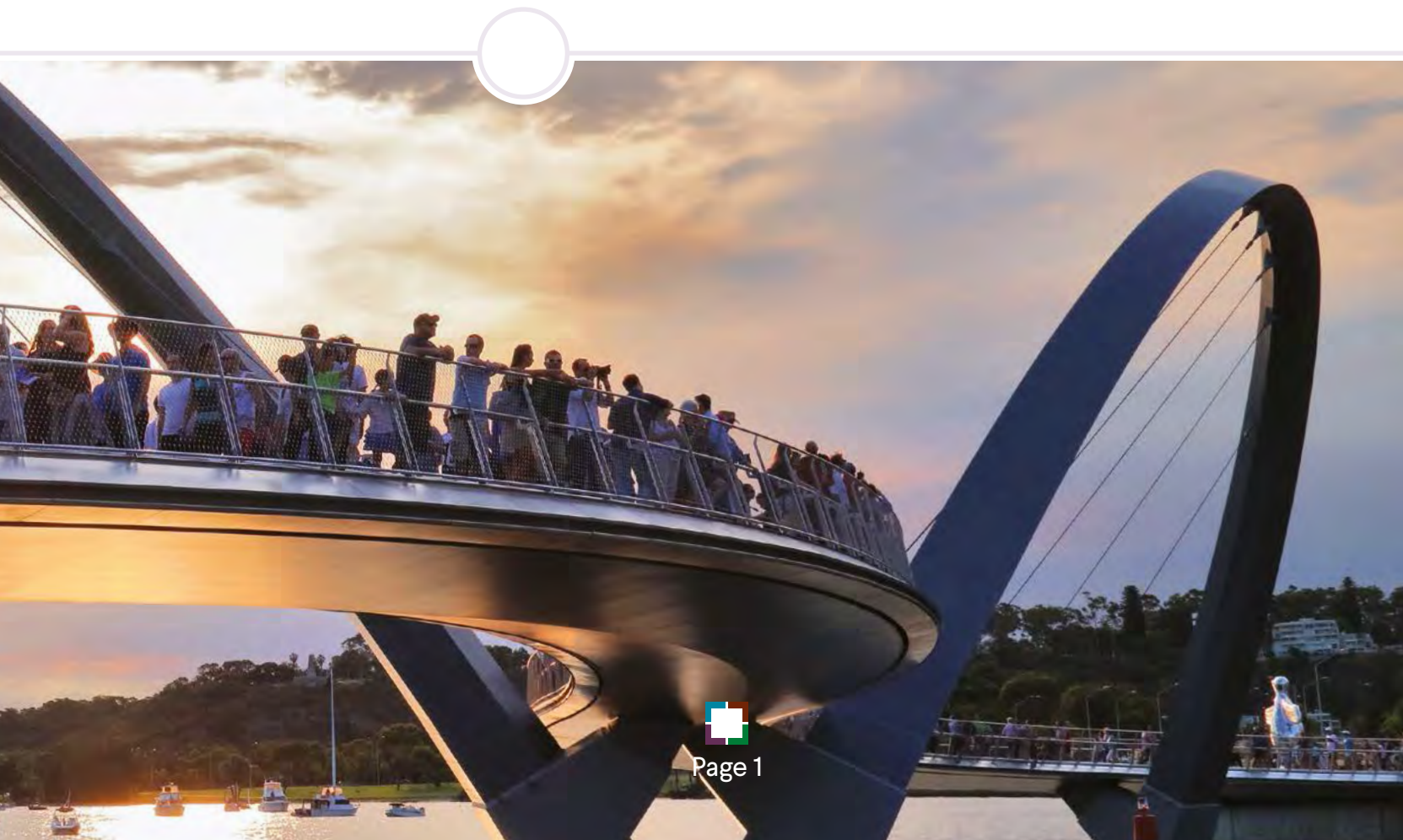
Western Australia's Perth and Peel regions boast an abundance of physical attributes and offer numerous economic and social opportunities which have combined to provide an enviable lifestyle and quality of life which are recognised internationally. Critical to this success has been careful planning that has provided housing and employment opportunities and protection of environmental attributes. Perth and Peel are expected to experience considerable population growth, with a population of 2.9 million expected by 2031 and 3.5 million expected by 2050.

To accommodate the projected population growth and to protect lifestyle values into the future, new approaches to planning and development will be required, focussed on creating a connected city, which is liveable, prosperous and collaborative, linking metropolitan hubs with priority transport proposals.

The *Central Sub-regional Planning Framework* (the framework) is one of four frameworks prepared for the Perth and Peel regions – North-West, North-East and South Metropolitan Peel (including the Metropolitan South-West, Metropolitan South-East and Peel

sectors) (Figure 1). Together, these establish long-term and integrated framework for land use and infrastructure provision.

The framework builds upon the principles of *Directions 2031 and Beyond* and is a key instrument for achieving a more consolidated urban form that will reduce dependence on new urban greenfield developments to accommodate the anticipated population growth, by increasing residential density and urban infill development targets. It provides the strategic spatial framework which will guide local governments in achieving optimal



urban consolidation over the long term. The framework takes account of economic modelling and subsequent refinements following community consultation based on the overall urban growth scenario for a city of 3.5 million.

The framework will assist in the delivery of planning reforms and guide strategic planning by:

- the preparation of amendments to the Perth metropolitan and Peel region schemes, local planning strategies/schemes; district and, local structure plans and activity centre plans;
- the staging and sequencing of urban development to inform public investment in regional community, social and service infrastructure;
- recognising the existing characteristics, heritage and landscape values of the locality along with the drivers for change around built form, housing, and employment opportunities; and
- providing a long-term growth plan that assists State Government utilities and infrastructure agencies to identify where upgrades or new infrastructure is required to support short, medium and longer term infill development.

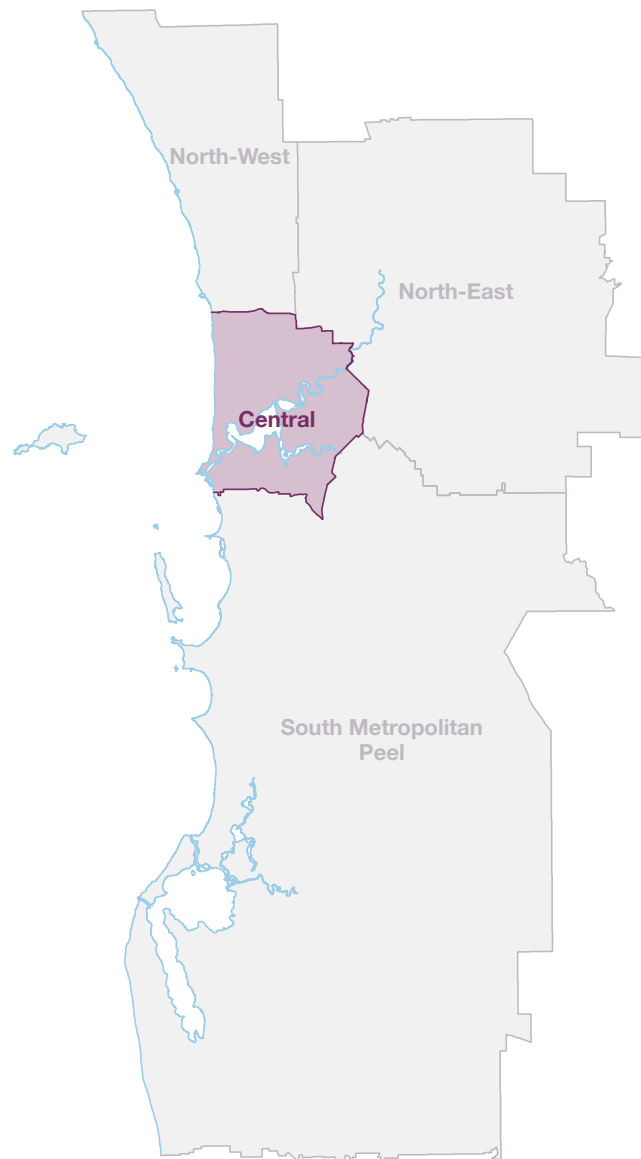


FIGURE 1: Locality map of the Central and outer sub-regions

1.2 Central Sub-regional Planning Framework

The extent and shape of the Central sub-region are defined by 19 local government authorities (Figure 2).

The Central sub-region is characterised by some of Western Australia's oldest urban settlements and has a high level of amenity due to its proximity to the river and the coast. It has historically been where urban development has been concentrated. The sub-region contains the central business district (CBD), has the highest population and employment densities and is the focus of the metropolitan public transit network.

The framework broadly sets out proposals to:

- achieve more consolidated urban form and development within the sub-region;
- meet long-term housing requirements;
- strengthen key employment centres, including activity centres and industrial centres to meet the future needs of industry, commerce and the community;



FIGURE 2: Local government authorities in the Central sub-region

- provide transport linkages that connect people with key centres of activity and employment, and access to areas beyond the Perth and Peel regions;
 - facilitate and support a future regional infrastructure network including transport, service, community, social, health, tertiary education, regional sport and recreation infrastructure; and
 - encourage and guide increased connectivity between areas of open space or conservation and protect areas with regional conservation and landscape value through an integrated green network and establish the elements and functions of the green network in supporting an active and healthy community.
- ensuring urban consolidation precincts have access to existing and future high-frequency public transit including bus and rapid bus transit routes, passenger rail; and
 - protecting the green network of high-quality natural areas such as parks, rivers, beaches and wetlands and the linkages between these areas.

Infill opportunities are not limited to the Central sub-region and it is envisaged that the other sub-regional local governments will adopt the urban consolidation principles (Table 1) of this framework and identify infill opportunities within the existing built environments.

The framework aims to bring people and places of activity within easy reach of each other and make better use of the existing infrastructure and amenities. The framework specifically aims to minimise the impact of urban consolidation, in particular, infill development on existing suburbs, and retain the existing built-up residential character and amenity by:

- identifying targeted increases in the density and diversity of mixed-use development, housing and employment that have the most potential to occur in activity centres, industrial centres, urban corridors and station precincts;





PLANNING CONTEXT

The main objective is to promote a balanced, consolidated development approach that effectively accommodates a larger proportion of new dwellings within existing urban areas



2.1 Western Australian Planning Framework

The sub-regional planning frameworks will be recognised within *State Planning Policy 1 State Planning Framework* and will be taken into account when strategies, policies and plans within the sub-region are prepared or reviewed (Figure 3).

The framework will provide strategic guidance to government agencies and local governments on land use, land supply, land development, environmental protection, infrastructure investment and the delivery of physical and community/social infrastructure for each sub-region.

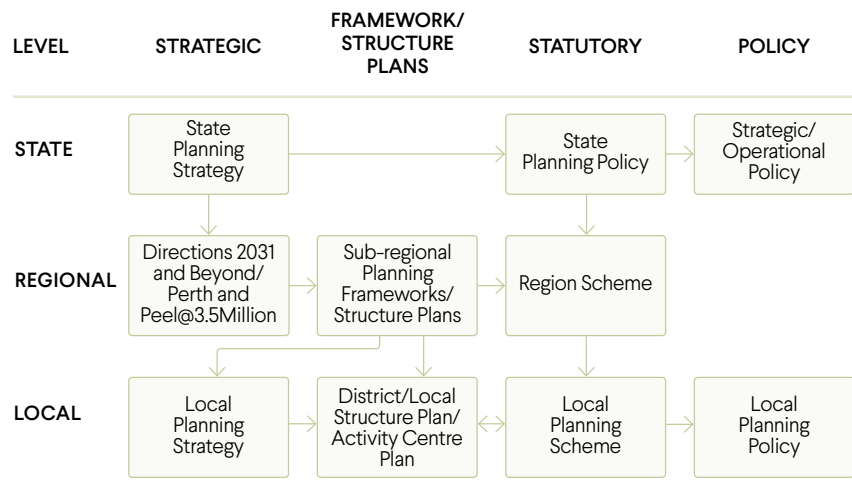
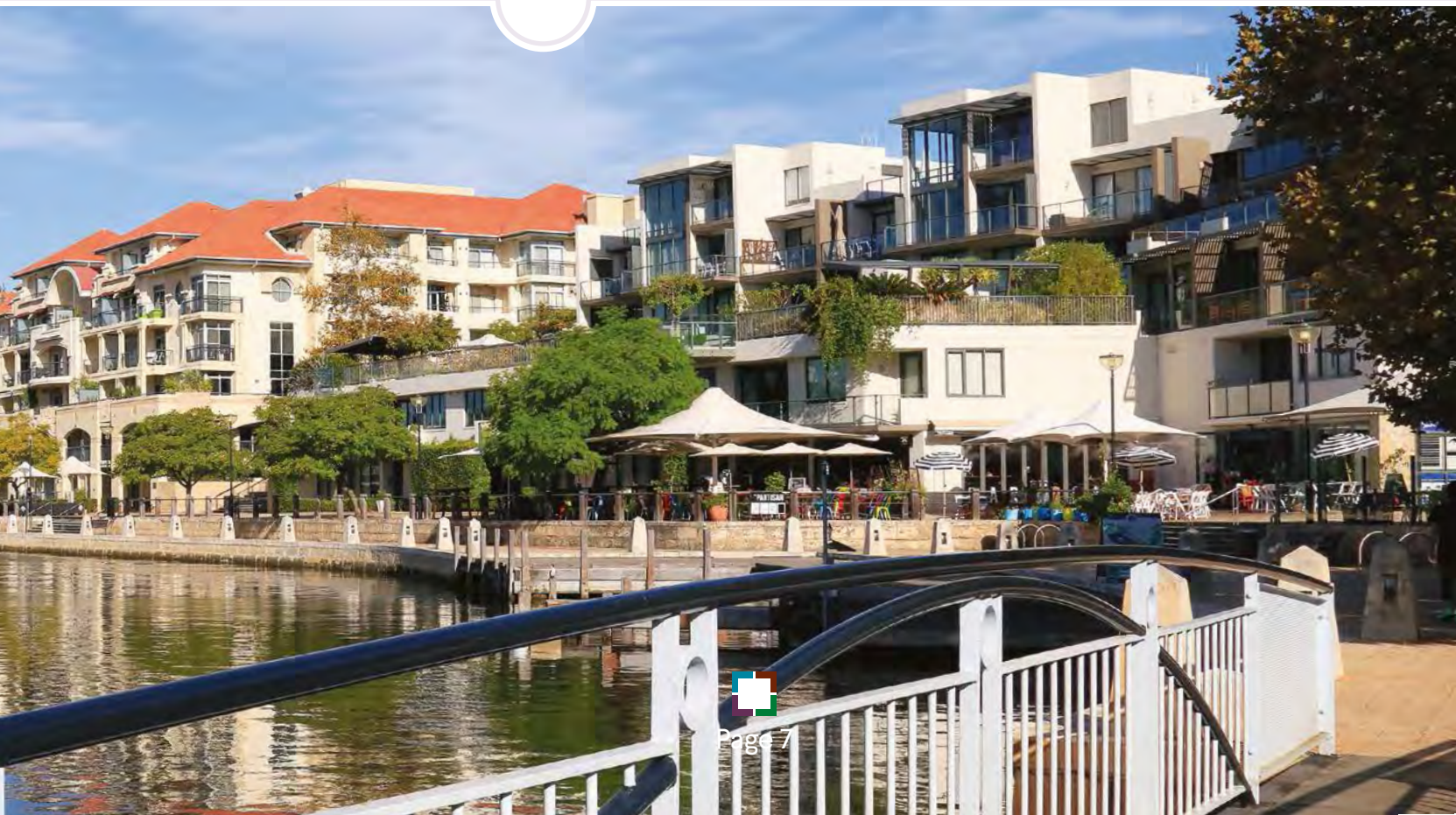


FIGURE 3: Western Australian Planning Framework



2.2 State Planning Strategy 2050

The *State Planning Strategy 2050* is the lead strategic planning document for Western Australia, providing the strategic context and basis for the coordination and integration of land use planning and development across State, regional and local jurisdictions. It contemplates a future in which high standards of living, improved public health and an excellent quality of life are enjoyed by present and future generations of Western Australians. The strategy proposes that diversity, liveability, connectedness and collaboration must be central to achieving the vision of sustained growth and prosperity, and establishes principles, strategic goals and directions to ensure the development of the State progresses towards this vision. Population projections in the document indicate that Western Australia's current population could double to 5.4 million by 2056 and the Perth metropolitan region could be home to around 4 million people (75 per cent of the State's population) based on a high growth scenario.

2.3 Directions 2031 and Beyond

Released in 2010, *Directions 2031 and Beyond* is a high-level strategic plan for the Perth and Peel regions that establishes a vision for future growth — creating a world-class city that is green, vibrant, more compact and accessible and with a unique sense of place.

Directions 2031 and Beyond highlights the benefits of a more consolidated city that accommodates future population growth while aiming to protect the environment and achieve a more sustainable pattern of urban development and effective transportation networks. It also:

- sets a target for a 50 per cent minimum increase from the then current average residential density of 10 dwellings per gross urban zoned hectare in new residential areas, to 15 dwellings per gross urban zoned hectare; and
- sets a target for a 50 per cent minimum increase from the then current 30–35 per cent level of urban infill development, to 47 per cent, within the Perth and Peel regions.

Additionally, the plan seeks to address the relationship between where people live and where they work with the aim of reducing commuting time and cost through the delivery of improved employment self-sufficiency across the outer sub-regions.

The key principles of *Directions 2031 and Beyond* formed the basis for the development of *Perth and Peel@3.5million* spatial plan (the spatial plan). In the event of any conflict between *Directions 2031 and Beyond* and the frameworks, the frameworks will prevail.



2.4 Metropolitan Region Scheme

The Metropolitan Region Scheme (MRS) is the regional planning scheme for the Perth metropolitan region and is the principal statutory mechanism for the implementation of future strategic land use and infrastructure proposals (Figure 4). The MRS provides for the acquisition of land (and waterways) reserved for public purposes including regional open space, public uses and infrastructure.

Local government planning schemes are required to be consistent with the broad land uses assigned under the MRS.

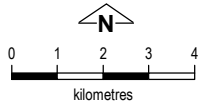
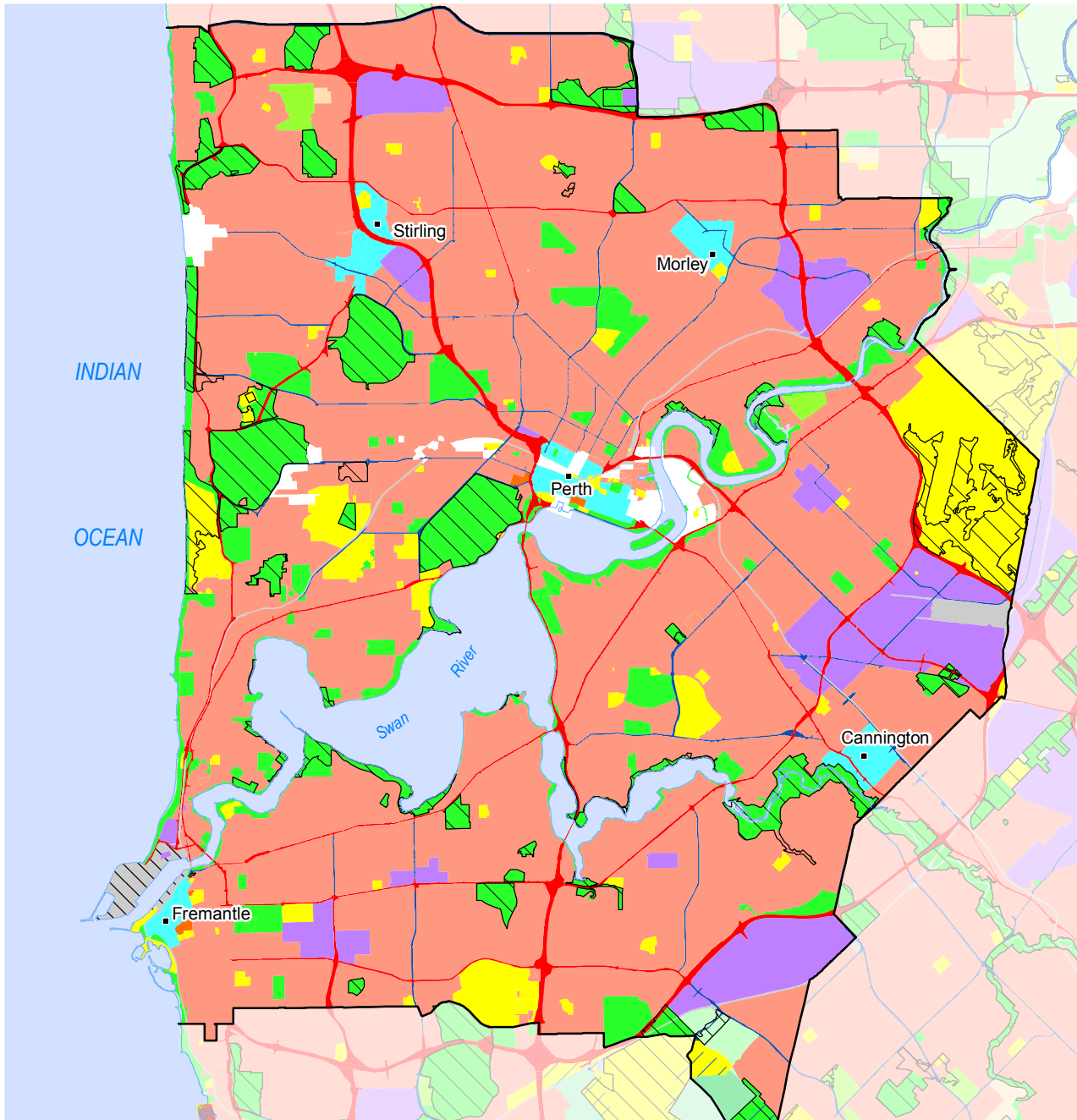
2.5 Metropolitan Redevelopment Authority

Under the provisions of the *Metropolitan Redevelopment Authority Act 2011*, the Metropolitan Redevelopment Authority (MRA) has a unique combination of place management, development, and planning powers to revitalise underutilised areas of metropolitan Perth. Within the Central sub-region, the MRA currently administers three schemes - Subiaco, Scarborough and Central Perth. The Subiaco and Central Perth Redevelopment Schemes encompasses complex city building projects that deliver on the strategic priorities of State Government. In Scarborough the redevelopment scheme covers discrete areas for urban regeneration. The MRS and local planning schemes do not apply in

these areas, instead, the MRA is responsible for creating a planning framework in order to guide development and deliver on the vision for a revitalised Perth. The Central Perth Redevelopment Scheme area includes the projects of Elizabeth Quay, Riverside, and Perth City Link, as well as Chinatown, New Northbridge and the East Perth Power Station.

In addition to those managed by the MRA, there are other metropolitan redevelopment areas that are administered by other authorities. For example, Perry Lakes redevelopment area is managed by LandCorp on behalf of the Western Australian Planning Commission.





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Legend

Metropolitan Region Scheme

- | | | |
|----------------------|-------------------------------|------------------------|
| Central city area | Rural - water protection | Primary regional roads |
| Civic and cultural | Rural | Other regional roads |
| Industrial | Special industrial | Railways |
| Parks and recreation | State forests | Bush Forever |
| Port installations | Urban | Water catchments |
| Public purposes | Urban deferred | |
| Private recreation | Redevelopment Scheme/Act area | |

FIGURE 4: Metropolitan Region Scheme at a Central sub-regional scale

2.6 Preceding sub-regional frameworks, structure plans and strategies

The high-level strategic documents that have previously guided the planning of the sub-region include the draft *Central Metropolitan Perth Sub-regional Strategy* (2010), *Economic and Employment Lands Strategy: Non-heavy Industrial* (2012) and the *Capital City Planning Framework: A Vision for Central Perth* (2013). Land use and infrastructure proposals and planning principles within these documents have been refined and, where necessary, reviewed within the framework which will now guide land use planning strategies and policy development in the sub-region.

The *Capital City Planning Framework*¹ highlights key city precincts and identifies key spatial elements to set a broad direction and principles that support an inclusive approach to the planning of all of central Perth. This framework builds on the principles and the objectives of the *Capital City Planning Framework* that paved the way to accommodate a growing and diverse residential population.

¹ Western Australian planning Commission 2013, *Capital City Planning Framework: A vision for Central Perth*, Western Australian Planning Commission, Perth

2.7 Aboriginal heritage and native title

The frameworks acknowledge the traditional owners of the land, past and present. The recognised traditional owners for the Perth and Peel regions are the Whadjuk and Gnaala Karla Booja people – see the Noongar (Koorah, Nitja, Boordahwan) (Past, Present, Future) *Recognition Act 2016*. Broadly, the Whadjuk regions includes the coastal areas from Two Rocks south to Garden Island including Perth, Fremantle and Rottnest Island and extending inland including the area of Jarrahdale, Mundaring and Toodyay. The Gnaala Karla Booja region includes the coastal areas from Kwinana to Capel, including Mandurah and Bunbury and also includes inland areas extending beyond the Perth and Peel regions to just north of Kojoonup and just south of Corrigin.

The State Government and South West Aboriginal Land and Sea Council have negotiated the South West Native Title Settlement.

Under the Settlement, native title is proposed to be exchanged for a negotiated package of benefits, including formal recognition of the Noongar people as traditional owners, land, investments and the establishment of Noongar Regional Corporations.

The South West Native Title Settlement is not yet finalised. Until the Settlement is finalised, the *Native Title Act 1993* (Commonwealth) continues to apply in the Settlement Area. Within the Settlement Area, the *Aboriginal Heritage Act 1972* (WA) applies at all times and will continue to do so after the commencement of the Settlement.

Land users must always consider Aboriginal heritage in their planning processes. The Department of Planning, Lands and Heritage is able to provide advice in relation to the application of the Aboriginal Heritage Act in the sub-regions.

2.8 The spatial plan for *Perth and Peel@3.5million*

The spatial plan for Perth and Peel regions has been developed with the aim of delivering a more consolidated urban form to achieve a more efficient and cost-effective urban structure that also minimises environmental impacts (Figure 5).

This plan has been prepared in collaboration with the Strategic Assessment of the Perth and Peel Regions (SAPPR), which is a holistic response to environmental approval requirements under Commonwealth and State government legislation.

The spatial plan has been prepared through an all-of-government approach, taking account of social, economic and environmental considerations including:

- the relationships between future urban land and existing development and infrastructure;
- existing planning commitments such as previously-approved sub-regional and district structure plans;
- fundamental geographic and related considerations that confine most urban development to the coastal plain;
- the expectation that servicing agencies will work collaboratively to maximise future shared infrastructure corridors and sites;
- containment of urban development to minimise further sprawl;
- an assessment of the capacity of existing urban land to meet future requirements for housing and population growth and the amount of additional urban land required;
- a systematic analysis of urban values by rating the potential of all land in the Perth and Peel regions to contribute to, and capitalise on an efficient urban form;
- a detailed examination of significant environmental values, as set out under State and Commonwealth environmental legislation and policies; and the Office of the Environmental Protection Authority;
- a review of land requirements for economic and employment opportunities;
- an examination of the capacity of regional infrastructure to add value to existing infrastructure while minimising future costs to service future growth;
- investigations of cost considerations in relation to urban form; and
- investigations into the demand and supply of basic raw materials.



The spatial plan identified the need to:

- recognise existing regional open space areas and identify those that will be required in the future;
- avoid development within regionally-significant vegetation areas and wetlands;

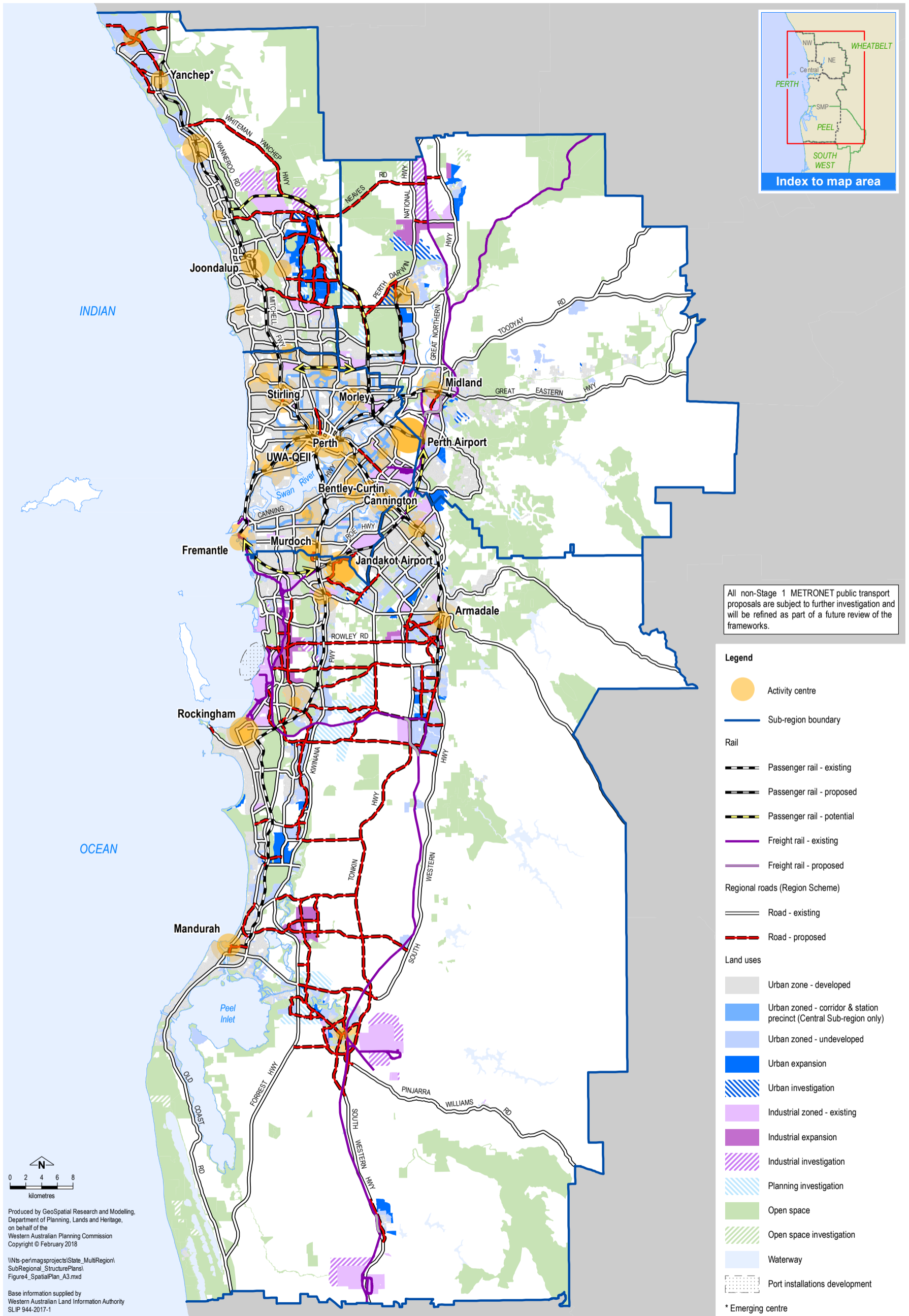


FIGURE 5: Perth and Peel@3.5million – spatial plan

- protect regionally-significant landscape values;
- safeguard high-priority groundwater resources;
- consider bushfire risk;
- retain options for long-term infrastructure corridors and installations;
- avoid land use conflicts by taking into account buffer requirements such as those required for industry, airports and wastewater treatment plants; and
- exclude development from floodways and other low-lying areas.

At the time the spatial plan was prepared, 16,000 hectares of remnant native vegetation was excluded from future urban, industrial, rural residential development sites, and sites for the extraction of basic raw material. This involved the exclusion of some sites previously identified as having development potential in preceding sub-regional plans, structure plans and/or local planning strategies.

Sites identified for development within the spatial plan may still contain environmental values that need to be identified, avoided and protected at subsequent stages of planning through a variety of mechanisms.

2.9 Other regional initiatives

The draft framework has been developed in collaboration with other State Government agencies and takes into account, where appropriate, a number of important initiatives such as:

- long-term transport planning for Perth and Peel to provide a network of strategic road and public transport linkages (including METRONET) to support a city of 3.5 million and beyond;
- *Future Perth Airports Technical Study* (Department of Planning, Lands and Heritage in conjunction with Department of Transport), which investigates potential sites for additional aviation facilities to serve the Perth and Peel regions;
- review of *SPP 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning*;
- draft *State Planning Policy 2.3 Jandakot Groundwater Protection* (Department of Planning, Lands and Heritage);
- review of *State Planning Policy 2.4 Basic Raw Materials* (Department of Planning, Lands and Heritage), which includes a review of basic raw materials resource mapping;
- *Perth and Peel Regions Water Supply Strategy* (Department of Water and Environmental Regulation) which will identify demand gaps, viable alternative supply options, and provide direction for future sub-regional planning;
- planning for the development and growth of both the Inner Harbour at Fremantle and the future Outer Harbour at Kwinana by the Westport Taskforce; and
- the *Future State Administered Roads Project* (Mains Roads Western Australia), which reviews future State road classifications.





THE CASE FOR URBAN CONSOLIDATION

Urban consolidation in the Central sub-region is the process of increasing or sustaining the density of housing in established residential areas through infill development. It is often realised by higher-density employment and residential development and urban renewal initially along public transport corridors. Its ultimate aim is to increase the take-up of infill development of the total anticipated growth



Introduction

The framework identified five key themes that form the foundation for the rationale for urban consolidation in a broad sense but speak specifically to the challenges to achieving successful infill development. These themes consider the impacts of the anticipated population growth, the changes in the demographic profile of our community, housing affordability, heritage and the quality of design of infill development.

3.1 Urban growth

The existing built-up urban area of the Perth and Peel regions stretches for more than 150 kilometres from north to south. Perth is an example of a sprawling city, where around 80 per cent of housing supply is in the form of detached dwellings, and greenfield development on the urban fringe has historically accounted for around 70 per cent of all new development^{2,3}.

In the past, Australians have traditionally preferred the quarter acre block, where the benefits of being able to have a larger home and a big backyard with lots of open spaces nearby are the foundations of the 'great Australian dream'. However, the business-as-usual approach which would allow the city to continue to sprawl is not sustainable due to numerous economic, social and environmental concerns.

² Rowley, Steven & Phibbs, Peter 2012, *Delivering Diverse and Affordable Housing on Infill Development Sites* (Final Report No. 193), Australian Housing and Urban Research Institute, Melbourne.

³ Western Australian Planning Commission 2014, 'Executive Summary', *Urban Growth Monitor: Perth Metropolitan, Peel and Greater Bunbury Regions* July 2014, Western Australian Planning Commission, Perth.



One of the key consequences of a low-density expansive city with a dominant CBD is traffic congestion. Perth has the highest proportion of employees with access to the CBD within a both a 45-minute drive (93 per cent) and a 60-minute public transport commute (58 per cent), compared to Sydney, Brisbane and Melbourne⁴. However accessibility to employment by public transport and car is lowest for outer suburban residents, with some locations only having a 1 per cent share of jobs accessible within a public transport commute of 60-minutes.

The Central Sub-regional Planning Framework has been prepared in response to the anticipated demand for infill housing that will stem from a population increase to 3.5 million people by 2050. It is expected that an estimated 800,000 more dwellings will be needed to accommodate the additional people expected in the Perth and Peel regions.

The Central sub-region is the key population, economic and business hub of the Perth and Peel regions. With an estimated population of 782,974 people in 2011, it accounted for 42.6 per cent of the total population of Perth and Peel.

Economic conditions and population growth drive demand for land for residential, industrial and commercial uses. Perth and Peel will experience significant demographic changes. Nationally there are trends towards an increasing number of one-person households, an ageing population, and continued immigration. Assuming these trends continue, these changes will be significant within the Perth and Peel regions.

Since 2005, Perth's population growth has been driven by a steady birth-rate, a strong economy and enviable lifestyle, drawing people from interstate and overseas. The population in the Central sub-region is projected to grow by more than 468,000 people between 2011 and 2050 – from around 783,000 to nearly 1.2 million people – with the City of Perth projected to record the fastest growth (almost tripling in size) (Table 9).

While the Perth CBD and immediate surrounding areas, including Northbridge, West Perth and East Perth, account for around 15 per cent (or 125,000 jobs) of the region's employment, 98 per cent of the region's total workforce do not live within the CBD. Of those that do work in the CBD and surrounds, around 40 per cent (48,000 workers) travel from outside the Central sub-region⁵.

Therefore, a more balanced approach to urban growth (including employment) is needed and can be achieved through identifying appropriate urban consolidation precincts in close proximity to quality public transport. The framework supports a more sustainable city and proposes to:

- facilitate more housing choice through increasing the diversity and density of residential development in established residential areas in appropriate locations;
- make better use of existing infrastructure such as regional and district open spaces and community infrastructure, but also, in particular, the public transport network to serve more commuters travelling between home, work, shops and other facilities and amenities; and
- encourage the distribution of employment across all activity and industrial centres to create greater opportunities for people to live closer to where they work.

⁴ FACTBase Bulletin 48 (May 2016), The Impacts of employment decentralisation on commuting in Perth and Peel Regions, University of Western Australia and Committee for Perth, Perth.

⁵ Australian Bureau of Statistics 2011, *Census of Population and Housing*, table generated 15 November 2012 using Local Government Areas (2011 Boundaries) (UR) and Occupation (OCCP) by Local Government Areas (2011 Boundaries) (POW) cat. No. 2006.0



3.2 Changes in demographics

Planning to accommodate the ageing population and the rise in one-person households is a major challenge for all Australian capital cities. For example, with the rise in the number of one-person households, there will likely be greater demand for smaller, and a variety of choice of, dwellings located in areas with high levels of social infrastructure and amenity.

As a result of such demographic changes, there will be growing demand for housing in areas with convenient access to a range of services (particularly community and health) or for different types of housing (for example, dwellings which are easier to maintain) to be permitted so that people can downsize from the traditional three or four-bedroom home but remain in the same suburb.

As the composition of the population progressively changes, planning must respond by anticipating the evolving needs and making provision for increased diversity of housing, that is, different types of housing in terms of size and type and/ or the location of homes required by communities.

3.3 Housing affordability and diversity

The Central sub-region offers good access to public transport and close proximity to the CBD, which enables transport and other living costs to be lower than they are for households in outlying suburbs. However, the higher cost of renting or buying in the Central sub-region also means that many lower-income households, do not have the option of living in the area and may be displaced to the outer suburbs.

One response to the affordability issue is the introduction of greater housing diversity within the existing urban environment, which is a key principle of the framework, and to promote the provision of affordable housing where appropriate in new developments. Smaller dwellings, like townhouses, apartments and ancillary dwellings (granny flats), tend to be more affordable than larger homes and can provide opportunities for lower-income households to live in the Central sub-region. It is expected that urban infill will create economies of scale over time to deliver innovative housing typologies and provide increased opportunities for more affordable living within vibrant and revitalised neighbourhoods characterised by mixed land uses,

reduced car dependency, efficient public transport and increased opportunities for social interaction.

The move towards encouraging more small and diverse housing types is supported by the findings of a study where the majority of respondents indicated that they would prefer to live in the Central sub-region but could not afford to do so⁶. The survey showed that location was the most important factor in housing decisions for most respondents and that many were prepared to trade-off house size or type in order to live in their preferred area.

A small but a growing trend towards multi-generational households (where two or sometimes three generations of adult family members live in the same house) poses a different set of challenges for diversity, as these households may require homes that can be adapted as needs change over time.

⁶ Department of Planning and Department of Housing 2013, *The Housing We'd Choose: A Study for Perth and Peel*, Department of Planning and Department of Housing, Perth.



3.4 Heritage

Perth has a colourful history and is rich in historic buildings and landscapes that need to be preserved for future generations. These places represent Perth's heritage and give the community a strong sense of place.

Considerable opportunities exist within the relevant proposed urban consolidation precincts to add new homes in under-utilised urban spaces. Where these urban spaces contain heritage places, new development can benefit from existing heritage value and character. The retention of heritage places also makes an important contribution to environmental, social and economic sustainability.

The framework acknowledges that there are benefits and opportunities that come with the adaptive reuse of heritage places, including sustainability benefits through retention of an existing building and reduced demolition waste. A number of design incentives and bonuses are also available to encourage revitalisation of heritage places to assure their long-term viability into the future, through sensitive development and adaptation. Adaptive reuse, where it can be achieved while respecting the heritage values of a place, is actively supported by the Heritage Council of Western Australia.

The Heritage Council recognises that there are underutilised heritage buildings in prime locations that provide unique and exciting opportunities to develop and revitalise our urban communities⁷. There are a number of developments throughout our city that have experienced the commercial benefits of adaptive reuse such as the B-Shed in Fremantle (1902, 1926), W.D. And H.O. Wills Warehouse (1927) Mackays Aerated Waters Factory (1928) and Midland Railway Workshops (1904-1912).



⁷ Heritage in action – adaptive reuse, June 2014, Heritage Council, State Heritage Office, Perth.

3.5 Design

Beauty can also be in the eye of the beholder, however, there have been many examples where infill developments have been designed inappropriately and resulted in an interference of the existing residential character. This conflict manifests itself in terms of building materials, scale, and destruction of the continuity of street frontages. It is these less than optimal examples of infill development which create community opposition as the perceived effect is an erosion of the area's amenity.

Well-designed and well-located infill developments can have substantial social, historical, visual, and financial value for the whole community. Successful and sustainable urban consolidation, in particular, infill development, correlates well when it is well-designed; and designers, developers, reviewers and assessors all play a role in ensuring our buildings and spaces exhibit design quality as highly functional, liveable and efficient places.

Good design is not just about appearance and aesthetics, but within the built environment good design is about functionality, performance and building quality as much as innovation and creativity. Good design is sustainable and resource-efficient, embraces its context and makes a positive contribution to its environment.

The purpose of ensuring quality design is that it delivers value for money as well as better buildings and spaces, particularly when attention is paid to the full costs associated with managing and maintaining public spaces over their lifetimes.

As part of its planning reform agenda, the Western Australian Planning Commission is improving the relationship of design considerations in its planning policy suite and procedures including through the development of *State Planning Policy 7: Design for the Built Environment*. These policies and procedures will consider the development of:

- clearer expectations for how design quality is measured, against a set of design quality principles;
- expert design review and requirements for appropriate levels of design skill, to apply across development thresholds;
- a series of development-specific policies to guide neighbourhood, detached/grouped, multi-unit (apartment) and activity centre development;
- a clearer guide for local governments looking to establish design review processes;
- standards for the way design review operates across jurisdictions; and
- an improved understanding of design issues among planning decision makers and practitioners.



URBAN CONSOLIDATION PRINCIPLES AND PRECINCTS

The framework guides the use of infill in urban consolidation precincts as a key means to achieve the preferred connected city growth pattern



The framework aims to deliver on the main objectives of the *Perth and Peel@3.5million* spatial plan to develop a consolidated urban form that places a greater emphasis on increased urban infill, residential density, people living close to where they work, while maximising the use of existing infrastructure where there is a concentration of urban and employment opportunities.

The framework seeks to optimise the use of land in close proximity to existing transport infrastructure and key centres of activity and community amenity. To achieve this, a focus for both infill and new urban areas will be the development and evolution of new and existing activity centres into vibrant, mixed use community hubs that are

integrated with high quality public transport connections. Based on existing development trends, there is sufficient capacity in the proposed consolidated urban form to meet the anticipated demand for additional dwellings beyond 2050.

The preparation of the framework involved the consideration of 10 urban consolidation principles (Table 1), such as an understanding of the existing and proposed high-frequency and or priority public transit network, together with an examination of existing local planning schemes and local planning strategies to consider existing and proposed local planning for housing and employment. The framework is made up of five distinct precincts of urban consolidation: activity

centres, urban corridors, station precincts, industrial centres and the green network and is outlined in Table 2.

The framework considered the urban consolidation principles, the precincts and the alignment with strategic policy such as *State Planning Policy 4.2 Activity Centres for Perth and Peel* in order to define areas where an increased focus on housing, employment and associated amenity (not just essential services such as transport, water and electricity but also open space, schools and shops) should occur, as shown in Plan 1.

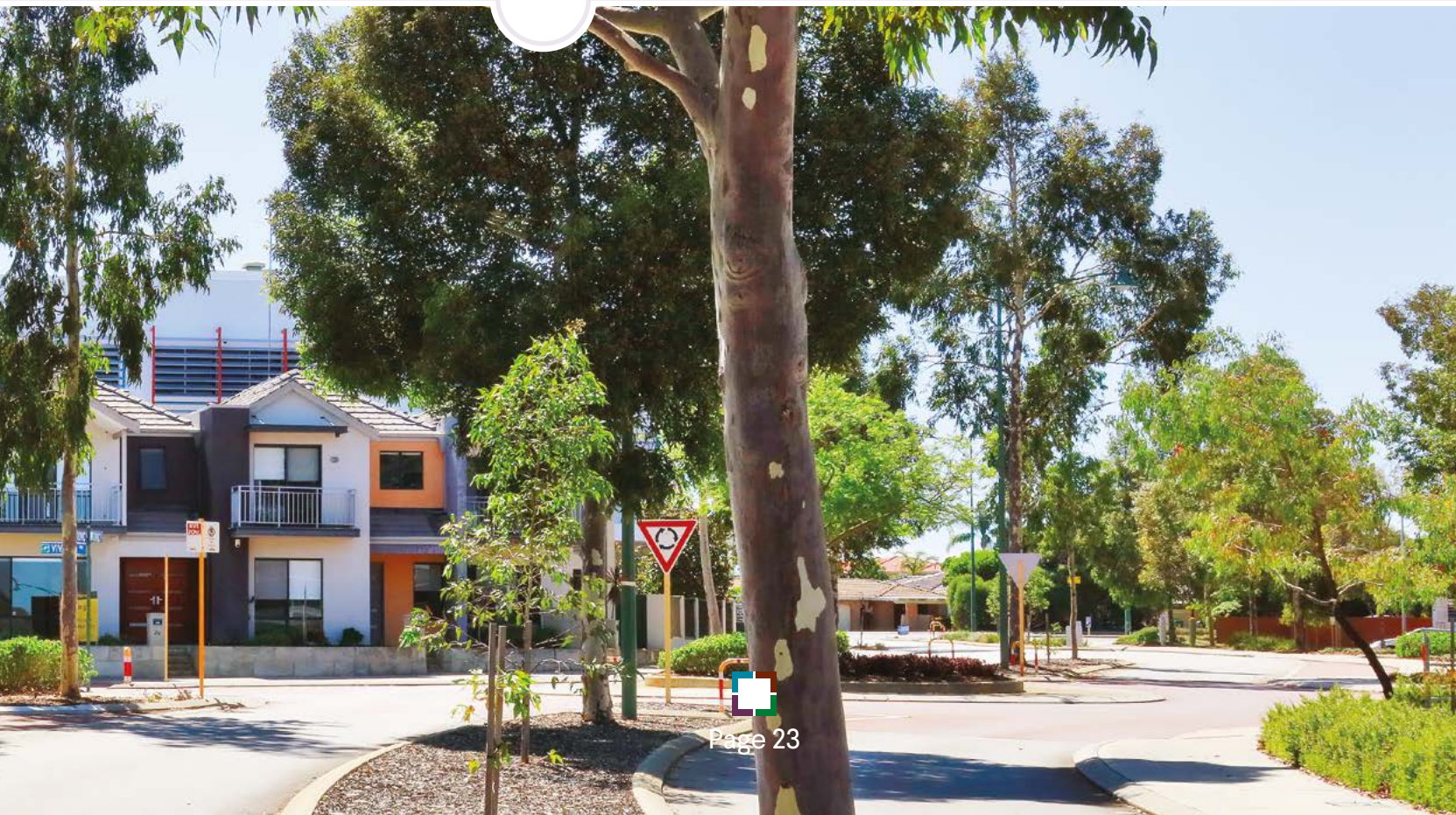


TABLE 1: Urban consolidation principles

Principle	Description
1. Housing	Provide well-designed higher-density housing that considers local context, siting, form, amenity and the natural environment, with diverse dwelling types to meet the needs of the changing demographics.
2. Character and heritage	Ensure the attractive character and heritage values within suburbs are retained and minimise changes to the existing urban fabric, where appropriate.
3. Activity centres	Support urban and economic development of the activity centres network as places that attract people to live and work by optimising land use and transport linkages between centres; protecting identified employment land from residential encroachment, where appropriate, and avoiding contiguous linear or ribbon development of commercial activities beyond activity centres.
4. Urban corridors	The focus for higher-density residential development. Where appropriate, located along transit corridors and promoted as attractive places to live by optimising their proximity to public transport while ensuring minimal impact on the surrounding urban fabric and the operational efficiency of the regional transport network.
5. Station precincts	Where appropriate, focus development in and around station precincts (train stations or major bus interchanges as set out under the METRONET initiative) and promote these precincts as attractive places to live and work by optimising their proximity to public transport while ensuring minimal impact on the operational efficiency of the regional transport network.
6. Industrial centres	Promote the current and proposed supply and/or development of industrial centres as key employment nodes and prevent incompatible residential encroachment on these areas.
7. Public transport	Ensure that most transit corridors are supported by quality higher-density residential land uses and identify where new or improved public transport services will be needed to meet long-term growth, especially current and future train station precincts.
8. Infrastructure	Ensure more efficient use of existing and planned infrastructure to achieve a more sustainable urban environment. Protect existing and proposed infrastructure from incompatible urban encroachment to promote a system where land use developments and infrastructure are mutually compatible.
9. Green network	Preserve and enhance, where appropriate, the green network of parks, rivers, sport/recreation areas, facilities for active open space, conservation and biodiversity areas, and areas with a high level of tree canopy coverage, considered important for the health and wellbeing of the community.
10. Protection	Avoid, protect and mitigate environmental values and promote development that contributes to maintaining air quality and minimises risks of inundation from sea-level rise, flooding or storm surge events and bushfire damage.

TABLE 2: Urban consolidation precincts

Precincts	Description
Activity centres	Activity centres are hubs that attract people for a variety of activities, such as shopping, working, studying and living. These centres mainly consist of a concentration of commercial uses combined with a varying proportion of other land uses such as residential, schools and open space. The role and function of these centres and the diversity of activities within them varies depending on their catchment.
Urban corridors	Urban corridors provide connections between activity centres and maximise the use of high-frequency and priority public transport. Urban corridors shown in the framework represent significant opportunities to accommodate increased medium-rise higher density residential development by good quality, high-frequency public transport.
Station precincts	Station precincts are areas surrounding train stations and major bus interchanges with the potential to accommodate transit-oriented development (TOD), other than areas identified as activity centres in <i>State Planning Policy 4.2 Activity Centres (SPP 4.2)</i> .
Industrial centres	Industrial centres are the areas zoned industrial or urban under the region scheme. As there is little land available within the Central sub-region to cater for further industrial development, there is a need to plan, protect and preserve industrial centres within close proximity to primary arterial routes in to and out of the Central sub-region in order to maintain employment diversity.
Green network	Population growth needs and higher density living to be supported by a green network of public and private open spaces. Consisting of public and private open spaces, the green network includes Bush Forever sites, national and regional parks, district and local parks, sports fields, school grounds, community facilities, golf courses, foreshores and beachfront areas connected by streetscapes, trails, cycle paths, and pedestrian footpaths. In describing the green network it is important to identify the destinations, the connecting elements, and the landscape features that create a unique 'sense of place' and contribute to the comfort and appeal of accessing places by cycling and walking.



Together, these urban consolidation principles and precincts form a framework that identifies where growth in the medium-to-long term should occur. The objective is to guide long-term planning for housing, employment, and infrastructure to serve a growing population and assist local planning alignment with State planning objectives. The aim is for these preferred locations to accommodate the majority of infill dwellings and employment development required for the sub-region by 2050, while the remaining infill dwellings will occur within suburban areas outside of the preferred locations. As part of the identification of preferred locations for urban consolidation, relevant servicing authorities should be consulted to ascertain infrastructure capacity.

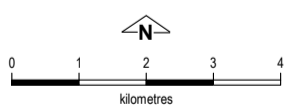
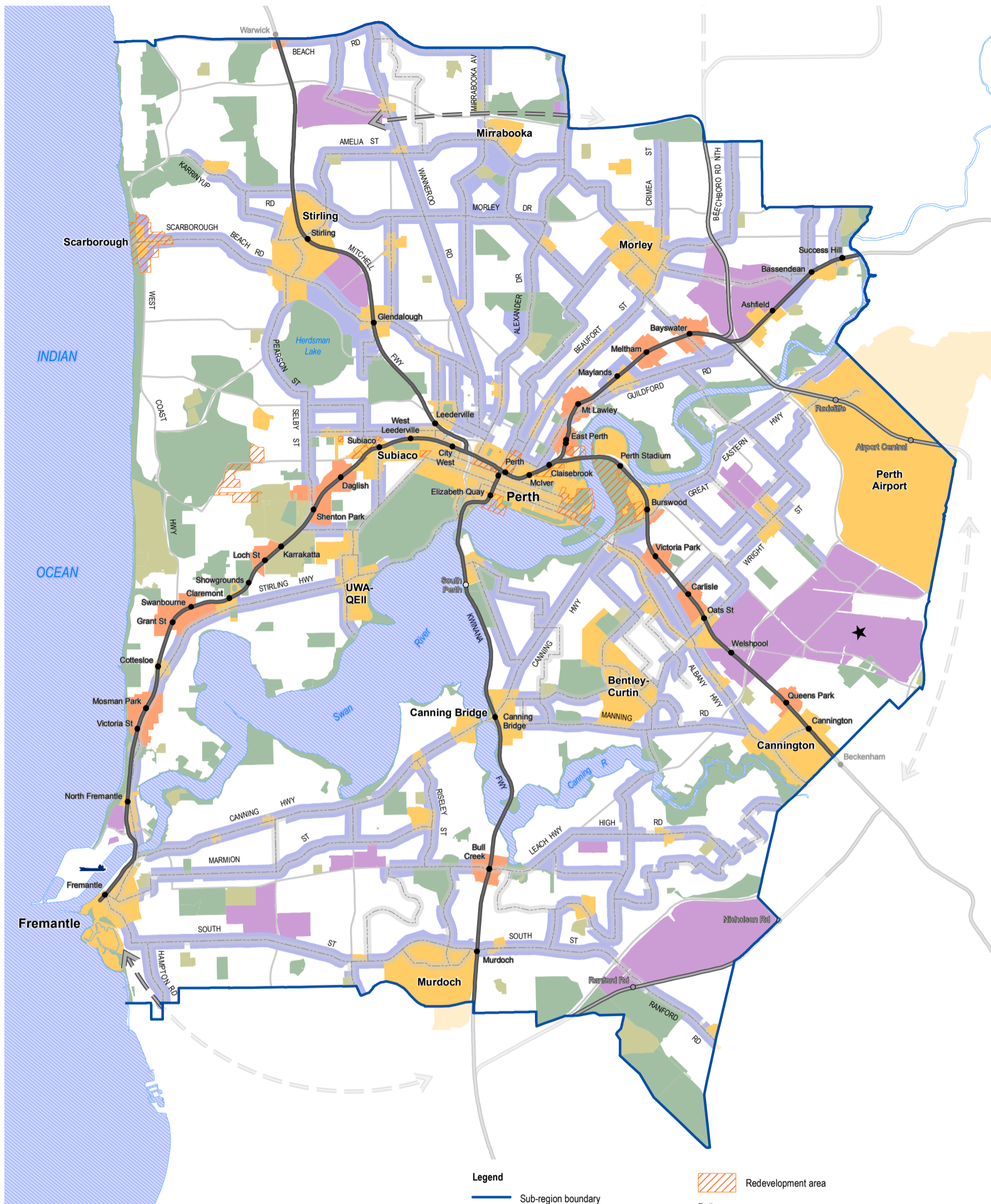
Local governments shall have regard to the principles for urban consolidation (Table 1) when identifying locations for future infill development. These principles include a focus on infill within areas with proximity to transit corridors and stations, within activity centres and urban corridors, and areas with high-quality open space and access to the broader green network. This will often align with planning for METRONET, as an investment program to deliver the first stage of the transport network, as well as the location of station precincts and activity centres, that match quality infill with amenity by creating a mix of open space, housing, workplaces and entertainment venues.

These areas are subject to more detailed investigation over time at local government level through local planning strategies, schemes, amendments, studies and other assessments that consider the community's needs, the unique characteristics and surrounding amenity. Local governments play an important implementation role in delivering the framework and this is explained in more detail in Chapter 6 Implementation - 6.3 Role of local government.

The varied nature and complexity of each of the local government's planning schemes and strategies impact on the timeframe in which to assess local planning schemes. This means that the status and age of local planning schemes and strategies across Perth and Peel varies widely.

The framework identifies the specific location of future urban corridors. Local governments in the outer sub-regions will need to consider the logical continuation of urban corridors across into their local government area when preparing local planning strategies and schemes.





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Legend

- Sub-region boundary
 - Framework land uses**
 - Green network (MRS only)
 - Activity centre
 - Urban corridor
 - Station precinct
 - Industrial centre
 - Public purposes
 - Waterway
 - Redevelopment area
 - Rail**
 - Passenger rail/station - existing
 - Passenger rail/station - proposed Stage 1 METRONET
 - Passenger rail - further investigation
 - Passenger station - further investigation
 - Fremantle Port
 - Kewdale freight terminal
 - High-frequency public transit
- NOTE: This is a conceptual representation of broad planning intentions within the sub-region. Further planning processes and decision-making under relevant legislation will need to be undertaken, including with reference to amendment of statutory instruments and detailed planning.

PLAN 1: Central sub-regional planning framework

4.1 Activity centres

A network of activity centres will be a key focal point for commercial and social activity and the delivery of services to residents living nearby and will be a major driver of new jobs located within communities. These aim to allow more people to live closer to where they work with the aim of reducing the overall distance travelled for work. Some will build on existing infrastructure such as universities and hospitals to leverage community assets into innovative job creating activity centres.

Activity centres will match quality infill with amenity by creating a village-style mix of open space, housing, workplaces and entertainment venues. Activity centres play a crucial role in the provision of employment where people live and have access to good quality public transport.

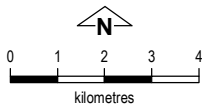
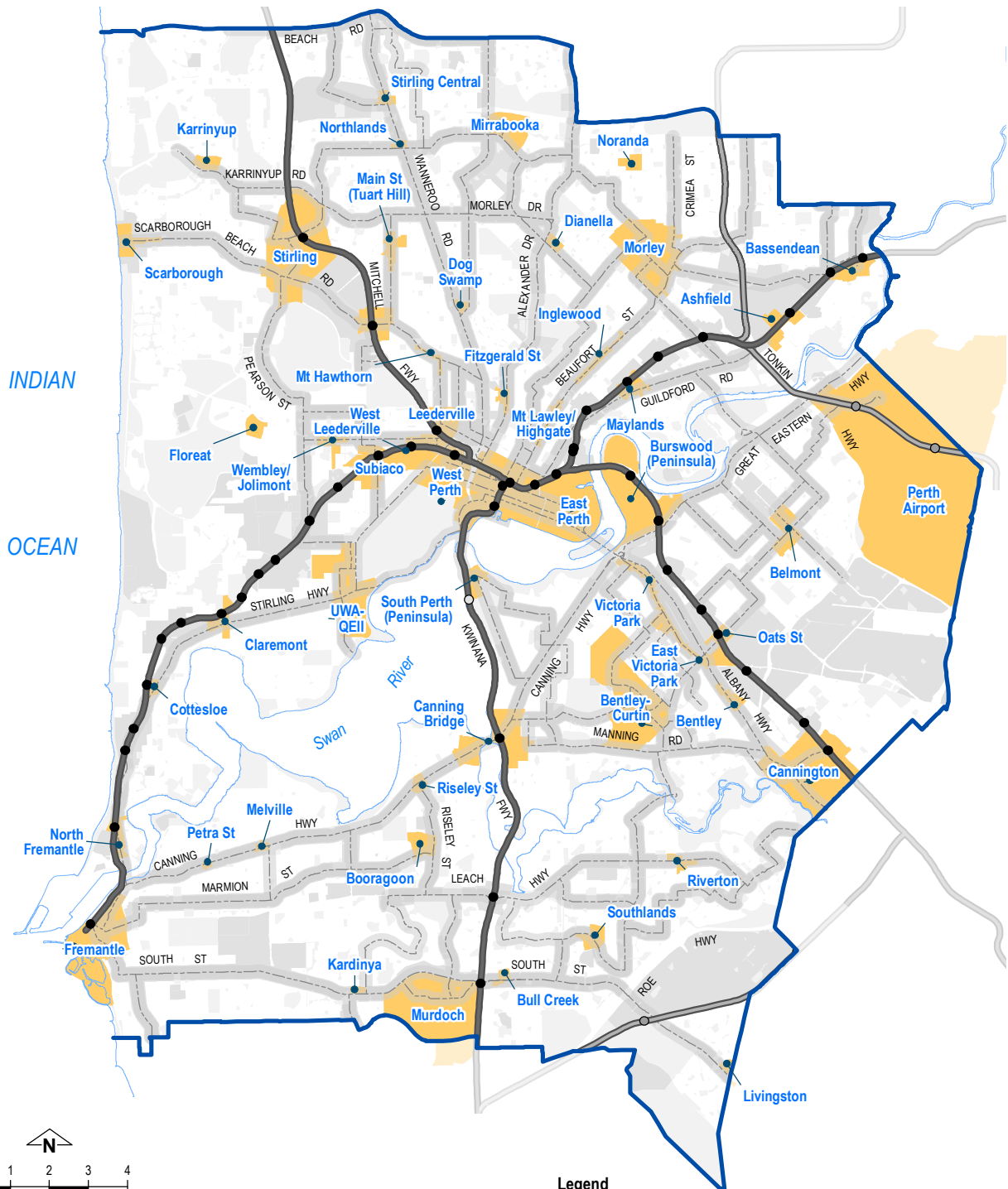
The aim is to provide a range of innovative housing options and the creation of a sense of place by providing social and business activities and services. These activity centres would build on existing infrastructure and be linked to a co-ordinated and integrated transport network to significantly reduce congestions.

For this reason, the framework builds on the *State Planning Policy 4.2: Activity centres* (SPP 4.2) in Perth and Peel objectives that place a focus on increasing residential, commercial and mixed-use development in and surrounding activity centres linked by a robust movement network. While the CBD will always have primacy, the framework supports an increased distribution of employment in proximity to where people live across Perth and Peel.

SPP 4.2 defines a hierarchy of centres based on the future importance of each centre from a network perspective and the magnitude of development expected for a centre (Tables 4 and 6). The hierarchy provides a guide for public authorities in the preparation of long-term capital investment programs and promotes increased private investment. The policy provides minimum and desirable residential density targets and mixed-use land use targets (Table 8) for each level of the hierarchy as a guide for planning and development.

In addition to the Perth capital city, there are approximately 50 activity centres across the Central sub-region, as shown in Plan 2 and listed in Table 4. Some activity centres such as Canning Bridge










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Legend

-  Passenger rail/station - existing
 -  Passenger rail/station - proposed Stage 1 METRONET
 -  Passenger station - further investigation
 -  High-frequency public transit
 -  Activity centre
- Railway alignment subject to further planning - refer to text in Part 5.3 of the Framework.

PLAN 2: Activity centres

and Glendalough have existing or proposed train stations in their centres and therefore qualify as station precincts. To avoid duplication and given that the intent and purpose of both activity centres and station precinct are similar, only those areas that are not already designated as activity centres in SPP 4.2 are delineated and classified as station precincts.

Activity centres have a level of diversity that goes beyond the hierarchy established in SPP 4.2. While centres may sit in the same level of the hierarchy, that is, have the same hierarchy designation in SPP 4.2, they could have very different focus and development pathways. The urban form of a centre may change over time depending on the type of development that occurs in a

centre. For example, centres which have an urban form dominated by an enclosed shopping mall surrounded by parking will have very different opportunities and constraints to more traditional main street type centres. The urban form and function of an activity centre should be investigated and considered when preparing an activity centre structure plan.

To meet the requirements of their future economic functions, many centres will need to develop a capacity to service the changing demographic needs of their catchment residential population as it grows and evolves. Understanding the economic function of each centre is critical to enable decision-making that encourages future performance both of the centre itself and the wider network.

There are two main activity centre function types, namely population-driven or strategic agglomeration. Activity centres that are focused on retail, such as Karrinyup or Booragoon, are examples of population-driven centres. Examples of industries with a high strategic component include mining, and business-to-business industries with a high knowledge component, such as professional and technical services. The Perth CBD is a prime example of a centre that has a strategic agglomeration function. The activity centres should be examined for opportunities to increase residential and mixed-use densities to achieve SPP 4.2 objectives and when reviewing a local planning strategy, local planning scheme and/or preparing an activity centre structure plan.

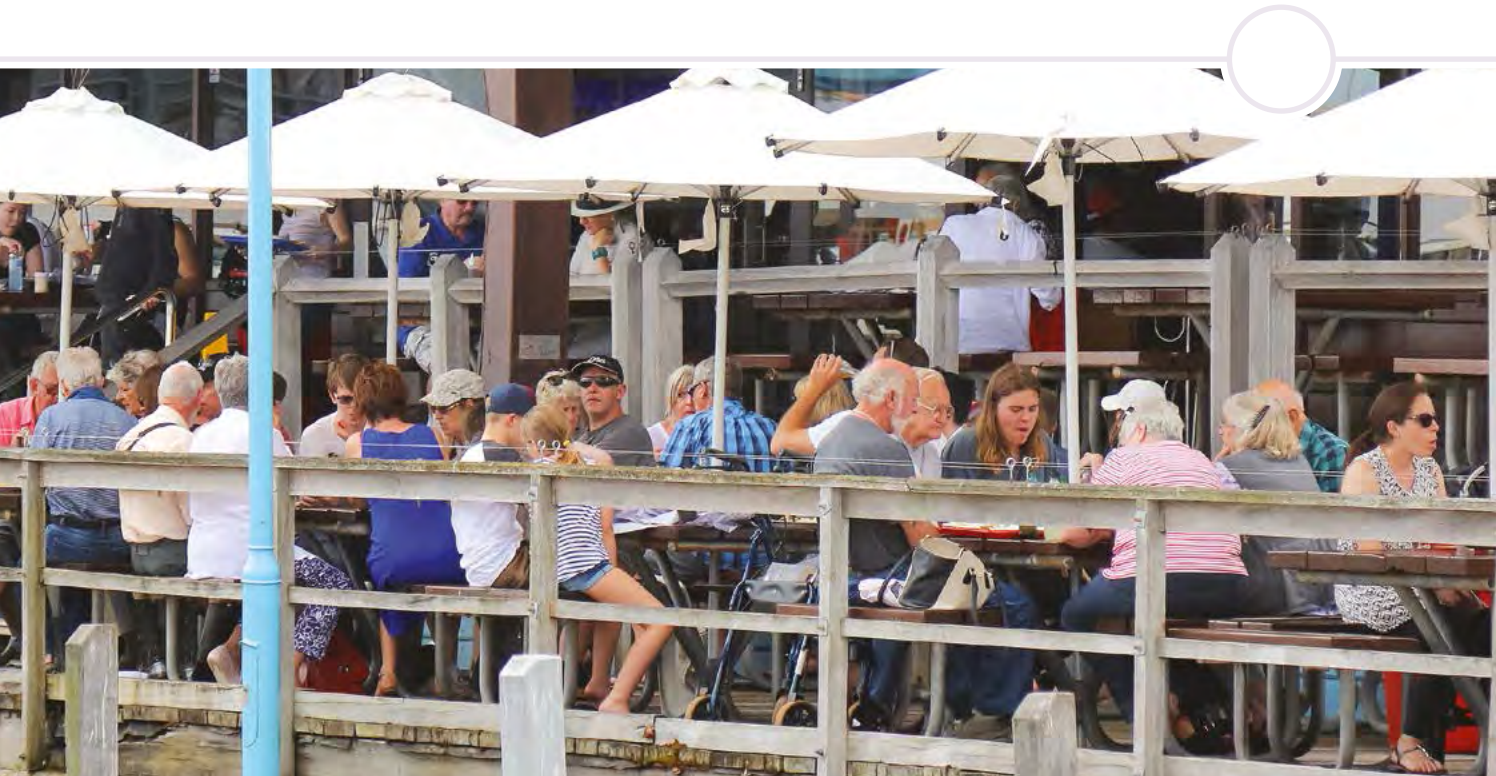


Draft activity centre boundaries

The geographical boundaries of each strategic metropolitan, secondary, specialised and district centre in the hierarchy have been identified in Plan 2 in order to spatially define and differentiate the extent of centres and urban corridors. Neighbourhood centres are not included in the framework, as these are more appropriately planned at the local level. The main purpose of the boundaries is to provide a platform from which to measure activity centre performance over time towards achieving higher densities and diversity in both employment and housing and to manage the interface between centre-scaled development and adjacent land.

These draft activity centre boundaries have been based on an analysis of existing activity centre structure plans, zoning in local planning schemes, the extent of existing commercial areas, major infrastructure elements, walkable catchment to major public transit stops and geographical constraints. The boundaries purposely include an array of uses that are considered components of the activity centre to match the intended role and function, accommodate sufficient growth, and deliver appropriate land use diversity.

New activity centres may be identified through sub-regional planning frameworks or plans, growth management strategies, local planning strategies and require endorsement by the WAPC, subject to compliance with the principles and objectives of SPP 4.2.



4.2 Urban corridors

In recent years, the concept of urban corridors has been promoted as a way of achieving integrated land use and transport outcomes. Urban corridors provide a connection between station precincts, activity and industrial centres, and operate not just as roads for the movement of vehicles or reserves for major infrastructure, but provide locations for increased and diversified places for people to live and work, where appropriate.

The framework identifies urban corridors in the Central sub-region alongside high-frequency public transit corridors, in Plan 3, that should be the focus for investigating increased residential densities, with potential for mixed land uses where appropriate. Local governments in the outer sub-regions will need to consider the logical continuation of these urban corridors when preparing local planning strategies and schemes. The urban corridors,

in particular, are shown as indicative extents for consideration for urban consolidation. Some precincts might, for example, in practical terms be wider or narrower depending on many aspects such as the lot and road layout and public purpose infrastructure.

The presence of existing or planned high-frequency public transit is an important consideration in determining whether a corridor is suitable for a more compact and diverse urban form. A high-frequency public transit service is one where one or more modes of travel (for example, bus, rail) are used in combination to:

- provide high levels of service frequency at all times of the week and generally higher frequency in peak periods;
- provide access to a reasonable variety of destinations including through multi-modal links (the movement of people by more than one method of transport); and
- operate with a high level of priority over private vehicles wherever possible.

An understanding of the existing and future function of urban corridors from both a transport and land use perspective is needed in order to determine future growth opportunities. Urban corridors vary in transport function and its ability to have adjacent high-density development and the development potential need to be considered against the local context and function of the particular corridor. It is important that intensifying development does not adversely impact upon the efficient operation of the local and regional transport network. Maintaining and enhancing the urban amenity is also a key objective when considering areas for intensification.

Figure 6 illustrates a cross section or interface of an urban corridor, with the appropriate function to allow for higher-density residential use, as it transitions into the existing neighbourhood. This is one example of many possibilities and each area will need to be considered on its local merits and conditions.

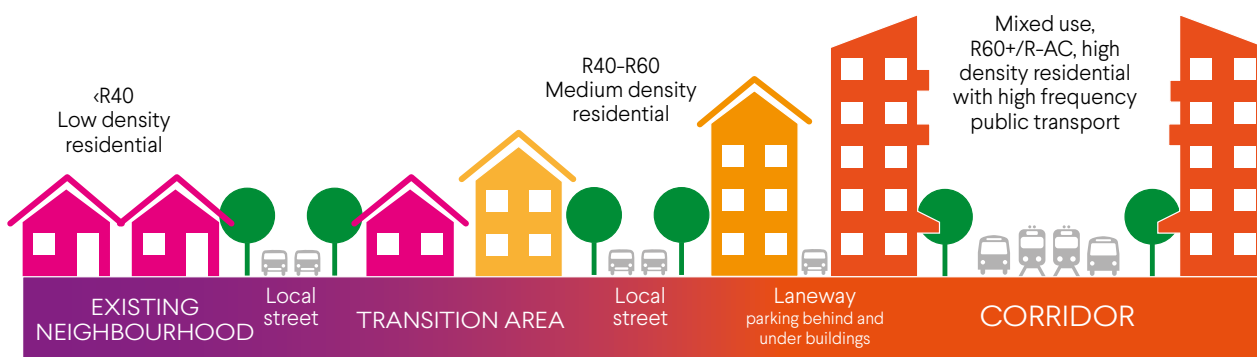
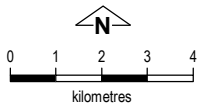
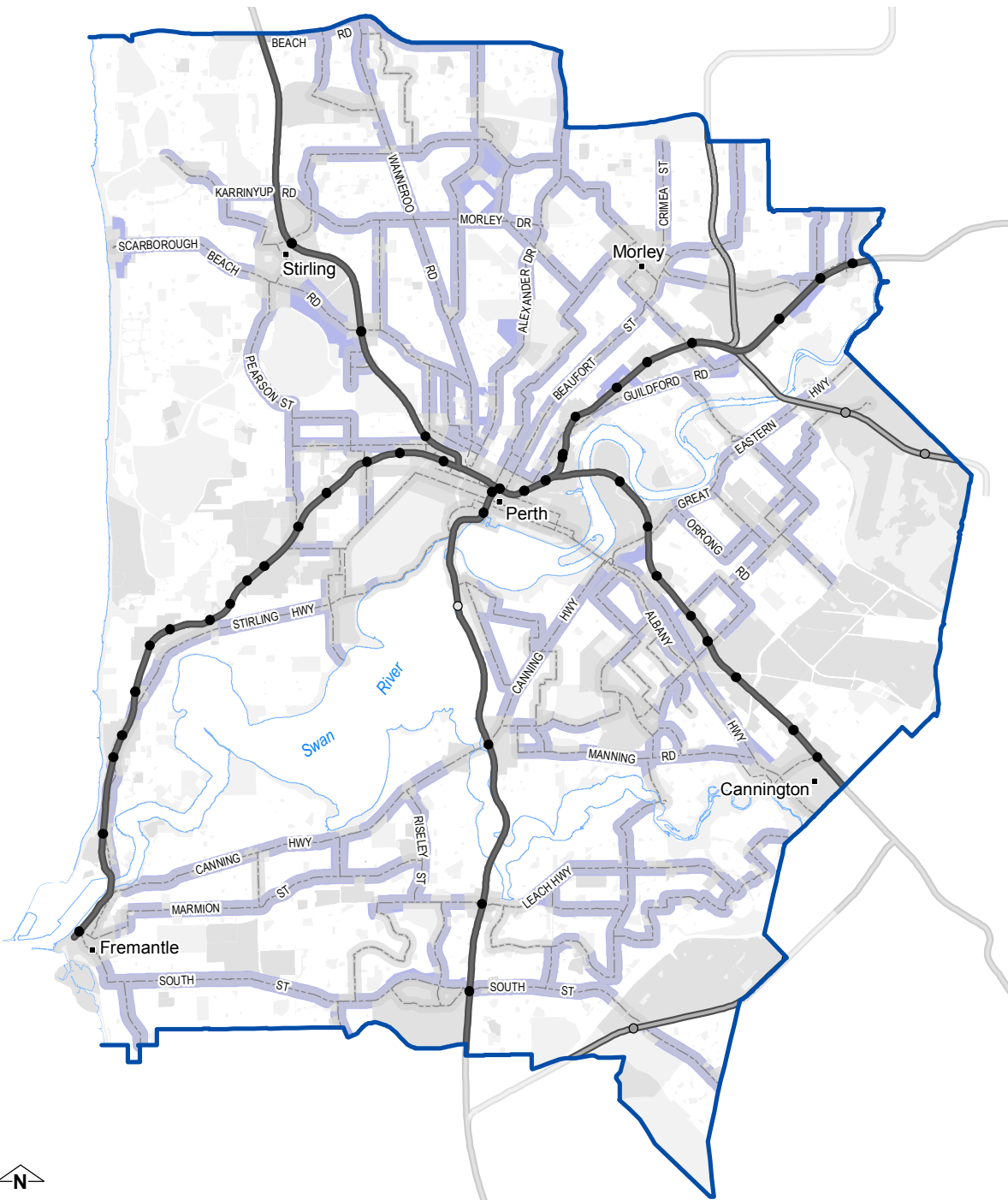


FIGURE 6: Cross section illustrating proposed interface from corridors to adjacent neighbourhood areas



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Legend

- Passenger rail/station - existing
- Passenger rail/station - proposed Stage 1 METRONET
- Passenger station - further investigation
- Railway alignment subject to further planning - refer to text in Part 5.3 of the Framework.
- High-frequency public transit
- Urban corridors

PLAN 3: Urban corridors



FIGURE 7: Albany Highway/Kent Street, Victoria Park – existing



FIGURE 8: Albany Highway/Kent Street, Victoria Park – visualisation



FIGURE 9: Albany Highway, Victoria Park – existing



FIGURE 10: Albany Highway, Victoria Park – visualisation



FIGURE 11: Canning Highway/Riseley Street, Ardross – existing



FIGURE 12: Canning Highway/Riseley Street, Ardross – visualisation

Some urban corridors are predominantly residential and may contain minor commercial or mixed-use development dotted along their length. Other urban corridors have a more even balance of both residential and commercial land uses, while others contain mostly commercial and office development. Residential density also differs within and between urban corridors, as do the intensity and type of commercial uses.

Many of the urban corridors in the framework have been identified along existing routes within the metropolitan regional road network, including sections of Stirling Highway, Canning Highway, Leach Highway, Manning Road, Scarborough Beach Road and Beaufort Street. The transport function can be highly variable both within and between different urban corridors. The transport function of an urban corridor is influenced

by land use and is dependent on a number of factors, such as its location and role within the wider region, the length and width of the urban corridor, and volume of traffic and modes that use the urban corridor.

The following visualisations (Figures 7 to 14) provide an indication of what urban corridors could look like in the long term, as one scenario of many possibilities depending on the local conditions and amenity. The visualisations do not necessarily reflect the most recent local planning nor do they imply wholesale application but merely illustrate how new development could allow for greater activity at the street level, provide opportunities for new businesses and facilitate greater housing diversity.

Urban corridors should be examined for opportunities to increase residential and mixed-use densities, where appropriate, when reviewing a local planning strategy, local planning scheme and/or preparing a structure plan.



FIGURE 13: Mirrabooka bus station/town centre – existing



FIGURE 14: Mirrabooka bus station/town centre – visualisation

4.3 Station precincts

Areas around train stations and other major public transport infrastructure have been identified as having the potential to accommodate increased development.

Development around public transport infrastructure is often called transit-oriented development (TOD) and is a type of development that includes a mix of housing, office, retail and/or other amenities integrated into a walkable neighbourhood. Transit-oriented development aims to:

- promote and facilitate public transport use;
- capitalise on the investment made in public transport infrastructure;
- encourage spatial development patterns that make it easier to both operate and access public transport;
- create transit stations as destinations;
- ensure the development of complementary land uses around transit stations; and
- establish high levels of amenity, safety and permeability of the urban form.

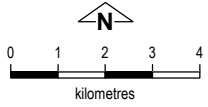
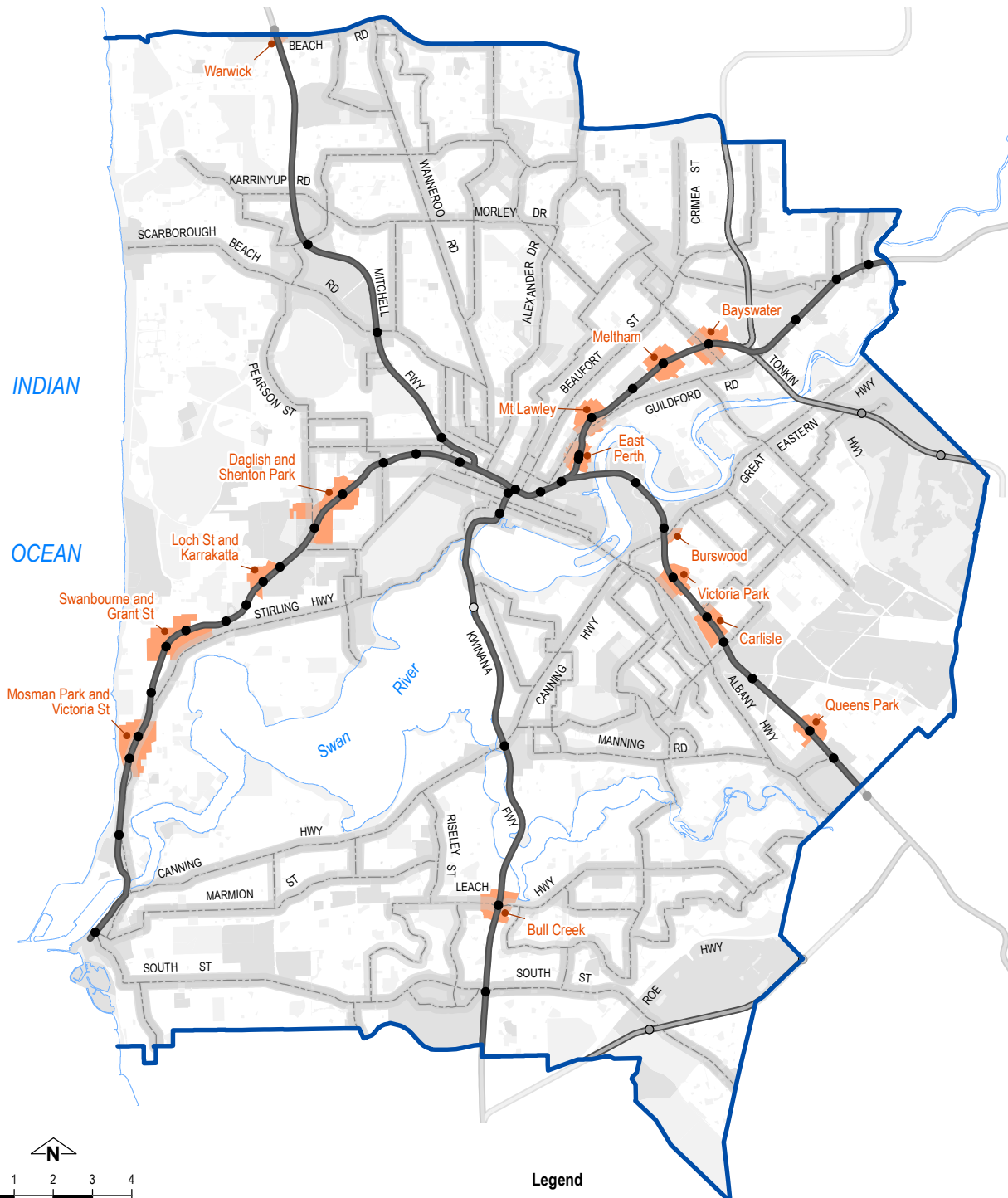
Nominal areas of 400 metres in diameter around 15 train stations on the Fremantle, Midland and Armadale/Thornlie rail lines and around Bull Creek Station on the Mandurah rail line have been identified for urban consolidation within the Central sub-region in Plan 4.

To avoid duplication and given that the intent and purpose of both activity centres and station precincts are similar, only those areas that are not already designated as activity centres in SPP 4.2 are delineated and classified as station precincts. When looking at higher-density development around station precincts, developers need to be aware of both the transport and land use function of the 800 metres walkable catchment of each station at the local and regional level.

All the station precincts are defined by railway tracks, some are at the same level or at grade (Oats Street station); some are in the middle of a freeway reserve (Bull Creek station); some are underground (Subiaco); and some also serve as significant bus interchanges and/or park and ride facilities. A number of the stations are surrounded by well-established high-value urban environments, while others have significant vacant land and show potential for urban redevelopment.

The station precincts should be examined for opportunities to increase residential and mixed-use densities, where appropriate, when reviewing a local planning strategy, local planning scheme and/or preparing a structure plan.





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 CSRSP_Plan04_StationPrecincts.mxd

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Legend

- Passenger rail/station - existing
 - Passenger rail/station - proposed Stage 1 METRONET
 - Passenger station - further investigation
 - High-frequency public transit
 - Station precinct
- Railway alignment subject to further planning - refer to text in Part 5.3 of the Framework.

PLAN 4: Station precincts

4.4 Industrial centres

The framework avoids future residential or commercial development encroachment on any land previously identified within the Economic and Employment Lands Strategy⁸, including industrial centres within the sub-region such as Canning Vale, Myaree, North Fremantle, Riverton, Ashfield (Bayswater/Bassendean), O'Connor, Kewdale/Welshpool and Canning Vale South as shown in Plan 5.

Areas in the Central sub-region zoned industrial under the MRS are locations for a mix of land uses ranging from traditional manufacturing and industrial services to showrooms, warehouses and business parks. The intent of the industrial zoning is to separate what have traditionally been incompatible land uses from residential areas — ensuring that residential areas are not unduly impacted and industrial businesses can operate effectively.

In 2011, industrial zoned land in the Central sub-region provided approximately 105,200 jobs — the highest number outside of the Perth and West Perth business districts. There is limited land available within the Central sub-region to cater for any future industrial growth, as most industrial centres are already

nearing capacity. Future demand for industrial land will be primarily met by other sub-regions within Perth and Peel or through an intensification of land already used for industrial purposes within the sub-region.

Industry is attracted to locations with good accessibility to major transport infrastructure such as ports, airports, freight routes and existing or proposed intermodal terminals. Most industrial areas in the Central sub-region are at or near capacity, and as urban density and land values increase, it is expected growth in industrial activities will be located in the outer sub-regions. An overview of the economy of the Perth and Peel regions, showing the anticipated job growth for each industrial centre with key existing and proposed economic infrastructure, is shown in Table 7.

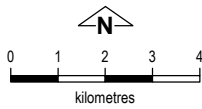
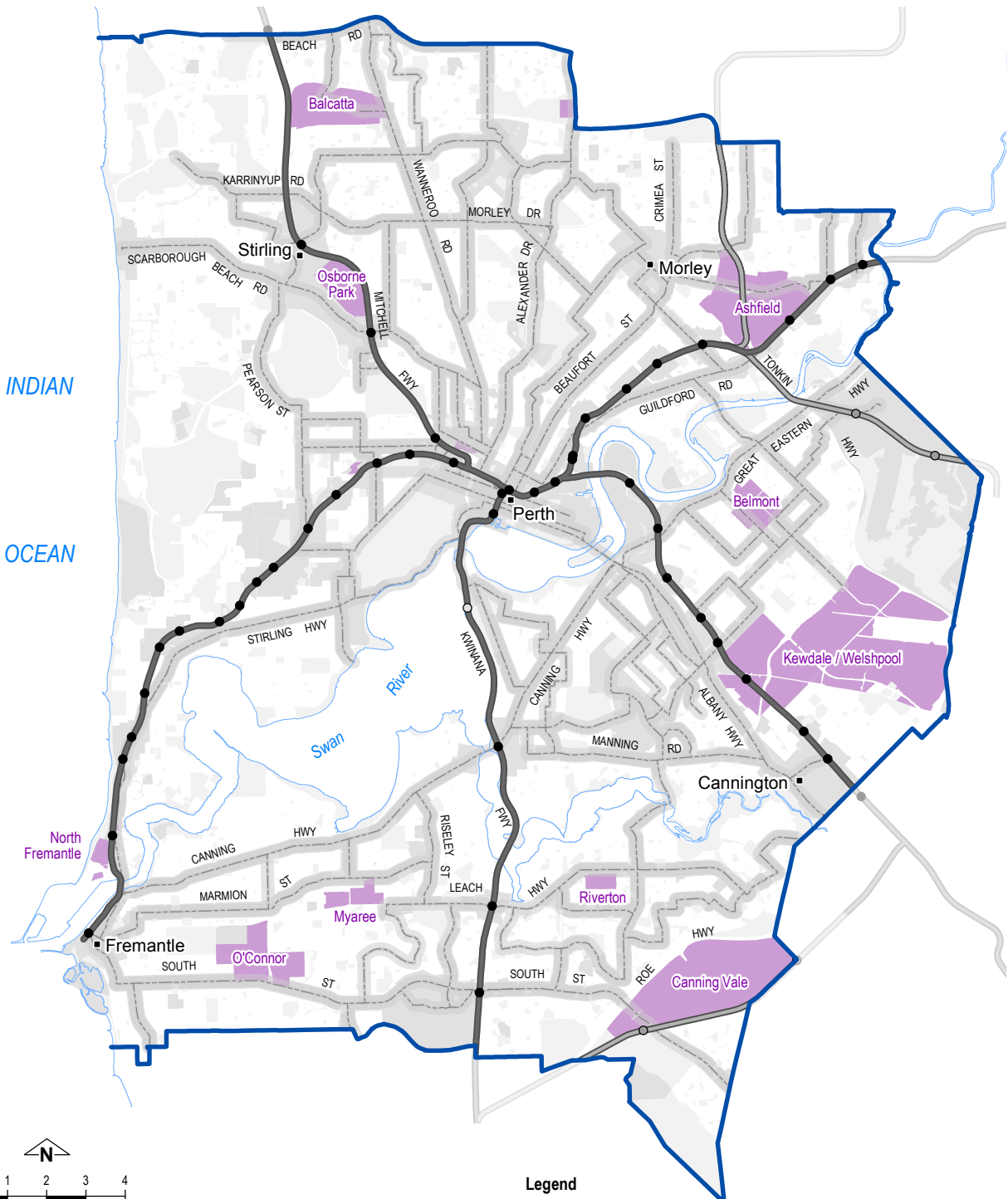
Industrial centres in the Central sub-region benefit from proximity to the city centre, established road and rail transport links and access to the labour force. As residential and commercial development has expanded and intensified and market forces and changes to products and production processes have arisen, these industrial areas

have come under increasing pressure. It is important that the existing industrial areas within the Central sub-region continue to operate effectively and allow for adaptive land use as informed by the market without the threat of encroachment or replacement by sensitive land uses such as residential or retail.

There is a need for industrial land to be planned, protected and preserved within close proximity and adjacent to primary arterial routes into and out of the city centre in order to maintain employment diversity when reviewing a local planning strategy, local planning scheme and/or preparing a structure plan. In the Central sub-region, the conflict between competing uses, such as residential and commercial, is placing pressure on the stock of industrial land that, without intervention, may be dramatically reduced.

⁸ Western Australian Planning Commission 2011, *Economic and Employment Lands Strategy: Non-heavy Industrial: Perth and Peel Regions*, Western Australian Planning Commission, Perth.











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Legend

-  Passenger rail/station - existing
-  Passenger rail/station - proposed Stage 1 METRONET
-  Passenger station - further investigation
-  Railway alignment subject to further planning - refer to text in Part 5.3 of the Framework.
-  High-frequency public transit
-  Industrial centres

PLAN 5: Industrial centres



4.5 Green network

Population growth and higher-density living need a high-quality interconnected green network of public and private open spaces. The green network includes Bush Forever sites, national and regional parks, district and local parks, sports fields, school grounds, community facilities, golf courses, foreshores and beachfront areas connected by streetscapes, trails, cycle paths and pedestrian footpaths. A good interconnected green network of gardens, parks, playing fields, bushland and waterways through the heart of the city, brings it life and appeal. The cumulative environmental, aesthetic, economic and social benefits from a good

green network make it an important element of urban consolidation. A healthy green network increases the amenity and value of urban areas.

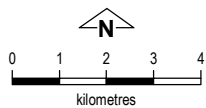
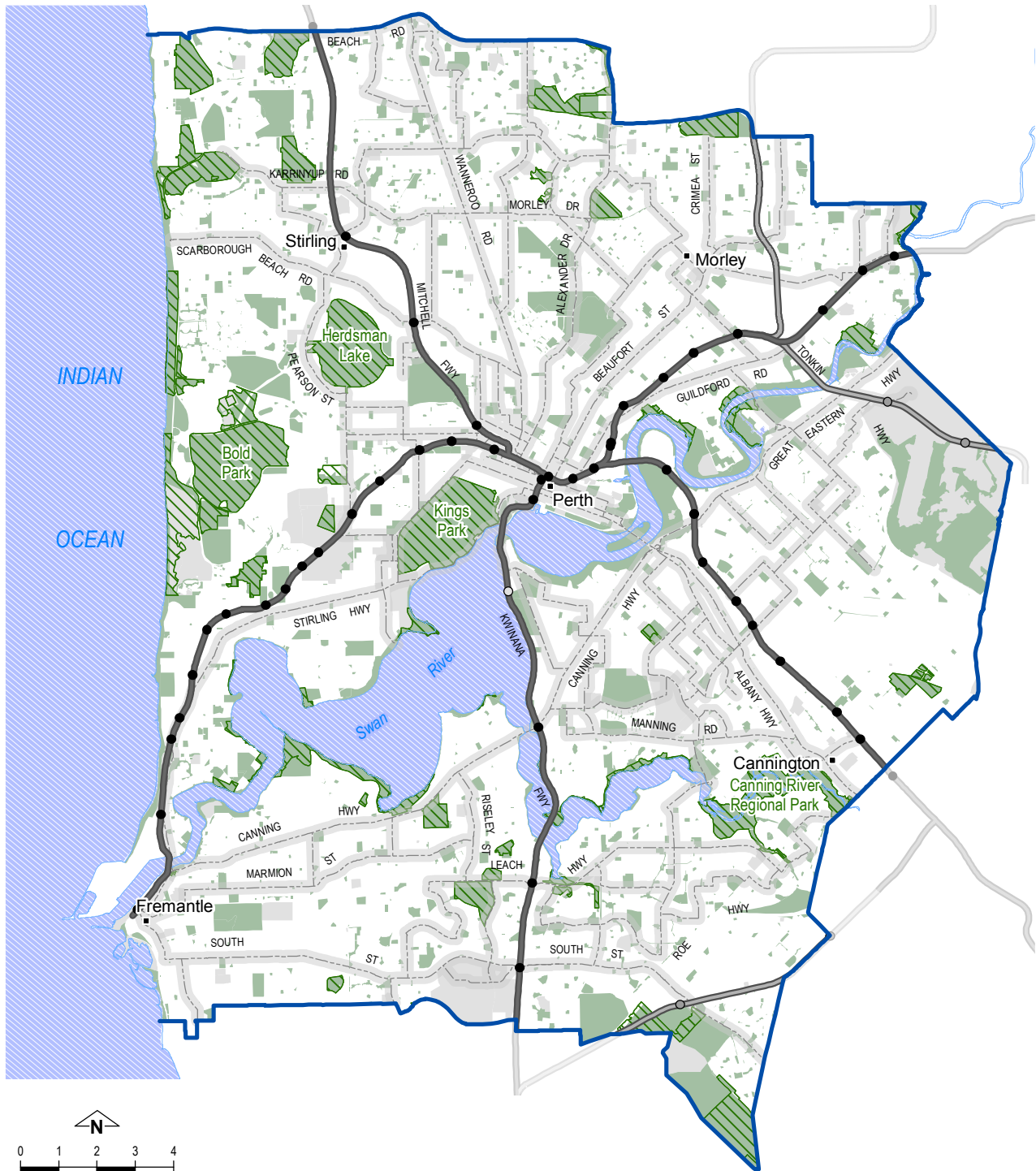
More than 11,000 hectares of land form part of the existing and proposed green network in Plan 6 and Table 11, including Bush Forever reserves, within the Central sub-region. The majority of the green network land area in the sub-region is dedicated to a number of regionally-significant landscapes such as the Swan and Canning River Estuary, Kings Park and Bold Park, and these areas are considered to be of regional significance due to their visual, cultural and natural

landscape qualities. The remaining green network is distributed across neighbourhood and district open spaces, sports fields associated with educational facilities, and foreshore beach reserves. The green network:

- provides venues for events, sports, recreation and the arts;
- contributes to social connectedness, mental and physical health and wellbeing;
- contributes to creating communities with unique identities and high amenity;
- protects and enhances conservation and biodiversity values, cultural heritage, character and tourism; and
- mitigates climate change factors (such as a drying climate and urban heat islands).



There is an increasing need to protect and enhance green network spaces and cater for recreation, sport, environmental and biodiversity values as urban density is increased. In addition to protecting environmental assets, enhancements to the design and maintenance of existing urban green spaces will help reduce the impacts of increasing temperatures and improve social and health factors such as air quality, water quality and community connections.









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Legend

-  Passenger rail/station - existing
-  Passenger rail/station - proposed Stage 1 METRONET
-  Passenger station - further investigation
-  High-frequency public transit
-  Green network
-  Bush Forever

Railway alignment subject to further planning - refer to text in Part 5.3 of the Framework.

PLAN 6: Green network

Public open space is only as good as it is usable, engaging, vibrant, safe and accessible. The quality of open space in the Central sub-region will be increasingly important as the population grows and density increases. Public open space should be designed as an integral part of the urban structure and offer a variety of safe and attractive spaces that are multi-functional and easily accessible via public transport, walking and cycling. The maintenance and sustainability of the green network will be dependent on innovative maintenance approaches such as the use of recycled water, which will become particularly important as climate change continues to influence water resources.

The green network, as identified in the framework, and its underlying principles should be used by local governments to inform initiatives such as a local green network strategy that allows for ongoing assessment, improvement and management of green assets. Green network strategies and policies need to:

- improve and protect public open space provision for access to sport, nature and recreation;
- preserve and enhance the existing environmental and landscape values of the sub-region for future generations to enjoy;
- manage the availability and use of natural resources to ensure existing and potential uses can be balanced against broader environmental outcomes;
- include improved public open space design to maximise water efficiency;
- consider alternative water sources such as wastewater and stormwater recycling for the irrigation of public open space;
- safeguard existing green network components from fragmentation;
- create and enhance existing green networks and identify ecological linkages to connect the green network and assist in the retention of habitat for significant fauna dispersal and migration;
- encourage or require new development to be designed to deliver on clear connections to the green network through the provision of new open space or contribution to the enhancement of existing spaces; and
- provide an acceptable number of street trees to enhance the public realm in urbanised locations.





ACHIEVING URBAN CONSOLIDATION

The aim is for the majority of all new infill development and employment to occur within the identified urban consolidation precincts of activity centres, urban corridors, industrial centres and station precincts.



The key drivers to achieving urban consolidation form that places a greater emphasis on increased urban infill, residential density, people living close to where they work, while maximising the use of existing infrastructure where there is a concentration of urban and employment opportunities in the Central sub-region include:

- the identification of employment and housing opportunities in close proximity or, alternatively, linked by a high-frequency public transit network;
- the monitoring and reporting on achieving local government infill housing targets as a performance measure against policy objectives;
- the implementation of the principles and precincts by local government through review of local planning schemes and strategies; and
- ensuring the infrastructure capacity to accommodate the expected growth.

5.1 Employment

Perth and Peel@3.5million has identified an overarching vision and key objectives for the economic development in relation to the future growth of the Perth and Peel regions. An overview of the economy of the regions, showing the anticipated job growth for each employment centre (i.e. activity and industrial centres) with key existing and proposed economic infrastructure, is shown in Figure 15 and Tables 6 and 7. The proposed increase in new dwellings and associated population will call for the creation of jobs and activity centres and station precincts will be a major driver of new jobs located within communities. For the shorter-



term, additional employment opportunities are expected to be created through the construction of METRONET and local production of railcars.

A key objective of the framework is to improve:

- access to a wider range of jobs by providing for an urban environment and dwelling options attractive to a range of workers and consumers;
- the relationship between where people live and work, and reduce commuting impacts and the associated costs; and
- the distribution of employment across Perth and Peel with a focus on the creation of strategic employment opportunities within the activity and industrial centres, while maximising use of existing infrastructure, that can complement and support existing regional-level facilities, which will result in the agglomeration of uses.

With a Gross Regional Product of approximately \$94 billion in 2011/12, the Central sub-region has the largest economy of all sub-regions in Perth and Peel. It is also currently the dominant employment centre with just over 540,000 jobs (2011) or 64 per cent of the Perth and Peel total. It is expected that more than 285,000 additional jobs will be accommodated in the Central sub-region up to 2050. However, the overall share of employment in the Central sub-region is projected to decline to 49 per cent by 2050, due to the strong rates of population

growth anticipated in the other sub-regions. The economic modelling is based on the draft framework scenario and changes to the area of land classified for future development in the final framework would result in changes to projections for dwellings, population, employment and industrial land demand by 2050.

Its large existing employment base, high employment densities in particular around the CBD, high levels of knowledge-based economy activity and ease of access provided by a radial transport system will deliver agglomeration, make the sub-region particularly appealing to businesses that provide strategic or export-driven employment, and which have a high level of interaction with each other.

The Central sub-region has a very high employment self-sufficiency rate of around 140 per cent (Table 5), as a measure of the quantity of jobs available in a given area as a proportion of that area's resident working population, and it is expected to remain the same as the city grows to 3.5 million people. This measure does not consider whether workers live locally or outside the sub-region and it is acknowledged that distance to employment is not the only measure of sustainable employment. A number of elements could influence this measure such as the dynamics of a fly-in fly-out workforce, home-based business, and mobile construction and trades workers. Consideration should also

be given to the long-term dynamic nature of employment centres and the preference would be to create jobs for local people.

A challenge is protecting employment-generating land from lower-risk competing land uses and maximising strategic employment opportunities for employment sectors (such as industrial and professional services) within existing and emerging employment nodes to contribute to the broader Perth and Peel trade economy.

Collaboration between State and local government and the private sector will be required in order to facilitate economic development and improved employment self-sufficiency across all of Perth and Peel. The achievement of local economic sustainability is an evolutionary process; it can be enhanced and accelerated, but it cannot be delivered instantly, alongside the roads, services and houses.

Local governments are encouraged to maximise job growth opportunities for employment nodes in the preparation of local economic development strategies that may result in job growth that exceeds the framework's projections. Local government has an important role in facilitating economic development within the sub-region through the preparation of local development strategies and schemes which:

- encourage and facilitate growth for activity and industrial centres for the purpose of delivering employment opportunities;



- protect employment-generating land from the encroachment of competing land uses;
- create employment opportunities within the sub-region and local authority which utilise local labour force skills to increase employment self-sufficiency;
- maximise and encourage further growth of the area's key economic sectors;
- cultivate and strengthen relationships with key stakeholders; and
- provide targeted services and support to businesses to facilitate economic growth.

Activity and industrial centres, and in some cases station precincts, have key roles to play in the provision of employment by encouraging the agglomeration of economic activity and the cultivation of business synergies. The employment centres are shown in Plans 2 and 5 with the anticipated jobs expected in activity centres (Table 6) and industrial centres (Table 7) within the sub-region. The framework provides incremental job growth projections for the sub-region to 2050 however, local governments are encouraged to maximise job growth opportunities for employment nodes in the preparation of local economic development strategies that may result in job growth that exceeds these projections.

Strategic metropolitan centres provide the main regional level activity, servicing populations of up to 300,000 and are the key element of the network of activity centres. Focusing on opportunities that build on existing and proposed infrastructure within these activity centres can provide a catalyst for a mix of land uses, employment opportunities and housing choice and diversity. A foundation of the proposed consolidated urban form is to concentrate the majority of the population within reasonable proximity of a wide range of services. There are four strategic metropolitan activity centres identified within the sub-region surrounding the Perth CBD, namely Cannington, Fremantle, Morley and Stirling. The urban structures and catchments for these centres are conceptualised in Figure 15.

Specialised activity centres such as hospitals and universities are places that have strong specialised roles focussed on regionally significant economic or institutional activities, technology-based businesses or airports within the centre. This function differentiates these types of centres from all other urban forms of activity centres. Specialised activity centres provide opportunities for the development of complementary activities, particularly knowledge-based businesses. They present a unique opportunity to combine specialised employment, residential living and education in one place, while also activating the area so it becomes a distinctive and engaging location for the community. New and upgraded health and education facilities are planned at Murdoch, UWA-QEII and Curtin/Bentley, and these centres will be key engine-rooms for future growth in health, education, research and high-tech engineering and development services.



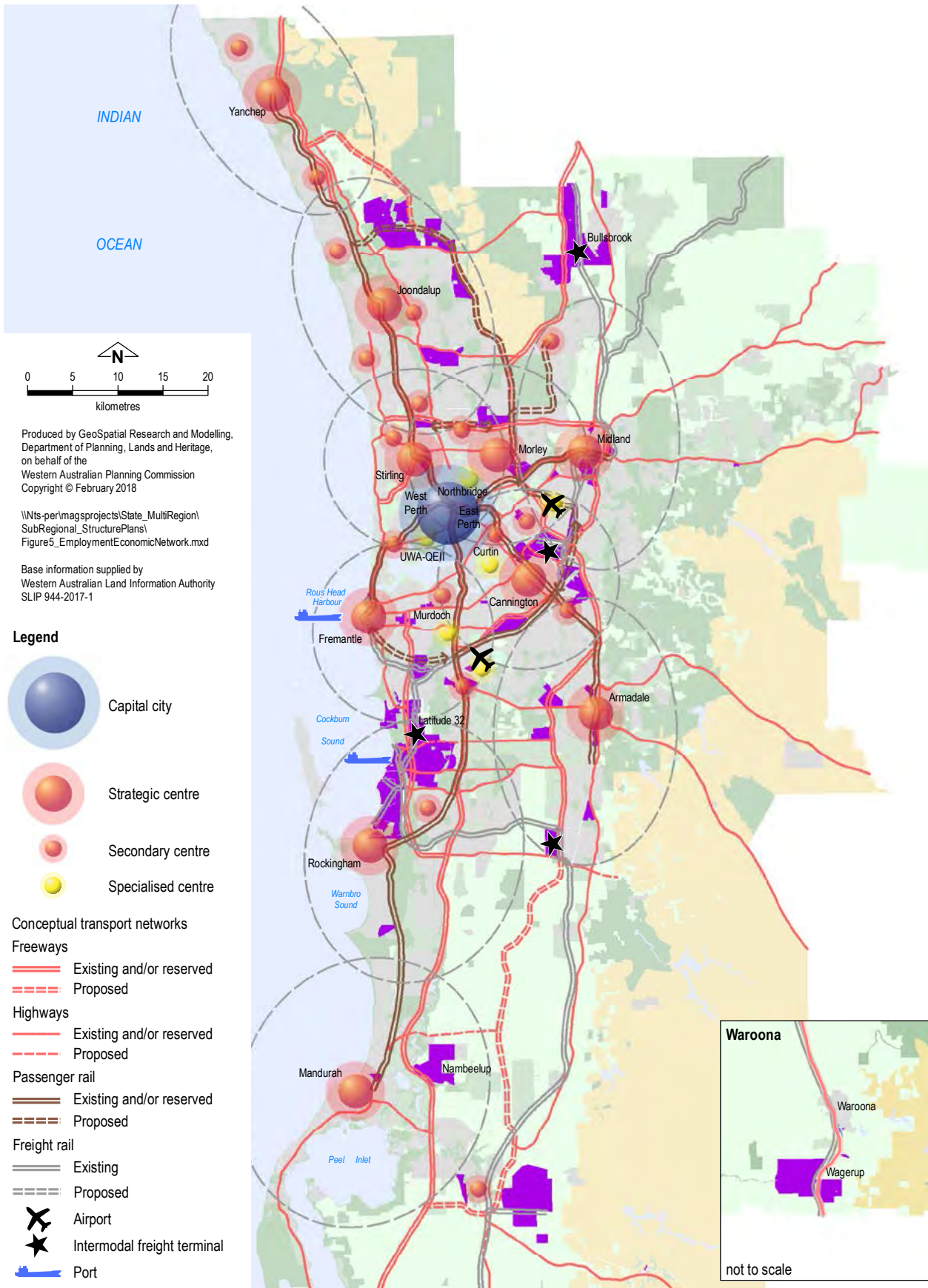


FIGURE 15: Employment and economic network 2050

5.2 Infill housing targets

Directions 2031 and Beyond sets an infill target (proportion of the total amount of additional dwellings) of 47 per cent for the Perth and Peel regions. This equates to approximately 380,000 new infill dwellings out of the estimated 800,000 dwellings that will be needed to accommodate the additional people expected by 2050. Approximately 215,000 dwellings (56 per cent of the total amount of new infill dwellings) are expected to be delivered in the Central sub-region and a further 165,000 dwellings in the outer sub-regions, based on the draft framework scenario (Table 9).

A high-level spatial distribution of the minimum infill housing target to 2050 across the Central sub-region, as detailed in Table 10, represents the minimum number of dwellings required, preferably within urban consolidation precincts, to guide local governments in the preparation of more detailed planning, including local planning strategies and structure plans. The local government infill housing targets were determined based on 2011 Census data, WA Tomorrow projections, and the local government area, planning strategies, structure plans and historic settlement behaviour.

The conceptual urban consolidation areas along with the minimum dwellings represents the minimum number of dwellings required in indicative areas. Incremental infill and higher-density development opportunities, outside of the identified activity centres, station precincts and urban corridors, will also occur and this is not discouraged as long as the development is of good quality. The local government infill housing targets will be subject to regular review as new data becomes available.

The aim is for the majority of all new infill residential development to occur within the preferred urban consolidation precincts of activity centres, urban corridors and station precincts to accommodate the majority of the

infill dwellings required by 2050. It is acknowledged that a portion of all new infill will occur within traditional suburban areas outside of the preferred locations (also referred to as incremental infill).

For example, despite not being located within urban consolidation element areas, several suburbs in the Stirling, Canning and Melville local government areas can accommodate medium-to-high densities of 30 dwellings per hectare or greater. Incremental growth is considered a gradual and organic process of continuous consolidation that occurs almost naturally at the accord of landowners, through mechanisms such as subdivision or land assembly.

