

Draft Local Planning Strategy

August 2025



Shire of Murray
LOCAL PLANNING STRATEGY

CERTIFICATION FOR ADVERTISING

Certified for advertising by the Western Australian Planning Commission on _____

COUNCIL RECOMMENDED / SUBMITTED FOR APPROVAL

Supported for submission to the Western Australian Planning Commission for endorsement by resolution of the Shire of Murray at the Ordinary Council Meeting held on _____

SHIRE PRESIDENT

CHIEF EXECUTIVE OFFICER

ENDORSEMENT OF LOCAL PLANNING STRATEGY

Endorsed by the Western Australian Planning Commission on _____

an officer of the Commission duly authorised by the Commission (pursuant to the Planning and Development Act 2005)

Document Control

Version	Date	Description	Officer
A	28/8/2025	Draft for Council consideration	RMP

Table of Amendments

Amendment No.	Summary of Amendment	Date Approved by WAPC
---------------	----------------------	-----------------------

Contents

Part 1 – Strategy

1. Introduction
2. Vision
3. Issues and Opportunities
 - 3.1 Overview
 - 3.2 Community, urban growth and settlement
 - 3.3 Economy and employment
 - 3.4 Environment
 - 3.5 Infrastructure
4. Planning Areas
 - 4.1 Overview
 - 4.2 Planning Areas
5. Strategy Maps
6. Planning Area Maps
7. Implementation and Review

Part 2 – Background information and analysis

1. Introduction
2. State and Regional Planning Context
 - 2.1 State Planning Strategy

- 2.2 State Planning Policies
 - 2.3 Regional Planning context
 - 2.4 Operational Policies
 - 2.5 Position Statements and Guidelines
 - 2.6 Other State or Regional Plans and Policies
3. Local Planning Context
 - 3.1 Strategic Community Plan
 - 3.2 Previous Local Planning Strategy
 - 3.3 Local Planning Scheme
 - 3.4 Local Planning Policies
 - 3.5 Structure Plans
 - 3.6 Local Development Plans
 - 3.7 Other Relevant Strategies, Plans and Policies
 4. Local Government Profile
 - 4.1 Demographic Profile & Population Forecast
 - 4.2 Community, Urban Growth and Settlement
 - 4.3 Economy and Employment
 - 4.4 Environment
 - 4.5 Infrastructure

Part 1 – Strategy



List of Figures

- Figure 1: Western Australian Planning Framework
- Figure 2: Local Planning Strategy Map
- Figure 3: Shire of Murray Forecast Population Growth 2021-51
- Figure 4: Strategy map north
- Figure 5: Strategy map central
- Figure 6: Strategy map west
- Figure 7: Strategy map south
- Figure 8: Strategy map east
- Figure 9: Pinjarra (North) Urban Infill Planning Area A
- Figure 10: North Yunderup Urban Infill Planning Area B
- Figure 11: South Yunderup Urban Infill Planning Area C
- Figure 12: Ravenswood District Activity Centre Planning Area D
- Figure 13: North Yunderup Future Urban Planning Area E
- Figure 14: Furnissdale (West) Urban Expansion Planning Area F
- Figure 15: Ravenswood (South)/Pinjarra (West) Urban/Urban Expansion Planning Area G
- Figure 16: Ravenswood (North) Urban Investigation Planning Area H
- Figure 17: South Yunderup Urban Investigation Planning Area I
- Figure 18: Coolup (South) Equine Living Planning Area J
- Figure 19: Dwellingup Urban Investigation Planning Area K
- Figure 20: North Dandalup Planning Investigation Planning Area L
- Figure 21: Mandurah – Ravenswood – Pinjarra High Priority Transit Corridor Planning Area M
- Figure 22: Keralup Employment Area Planning Area N
- Figure 23: Point Grey Tourism Planning Area O

List of Tables

- Table 1: Housing Planning Directions and Actions
- Table 2: Landscape, built form and character planning directions and actions
- Table 3: Culture and heritage planning directions and actions
- Table 4: Rural land use planning directions and actions
- Table 5: Parkland and community facilities planning directions and actions
- Table 6: Hazards planning directions and actions
- Table 7: Employment needs planning directions and actions
- Table 8: Activity centres planning directions and actions
- Table 9: Industry planning directions and actions
- Table 10: Health and education planning directions and actions
- Table 11: Tourism planning directions and actions
- Table 12: Murrayfield airport planning directions and actions
- Table 13: Resource management planning directions and actions
- Table 14: Water resources planning directions and actions
- Table 15: Biodiversity protection planning directions and actions
- Table 16: Energy use and emissions reduction planning directions and actions
- Table 17: Transport infrastructure planning directions and actions
- Table 18: Service infrastructure planning directions and actions
- Table 19: Urban infill planning area planning directions and actions
- Table 20: Ravenswood district activity centre planning area planning directions and actions
- Table 21: Urban growth planning area planning directions and actions
- Table 22: Coolup south equine living planning area planning directions and actions
- Table 23: Dwellingup urban investigation planning area planning directions and actions
- Table 24: North Dandalup planning investigation planning area planning directions and actions
- Table 25: Mandurah – Ravenswood – Pinjarra High Priority Transit Corridor Planning Area planning directions and actions
- Table 26: Keralup (east) employment planning area planning directions and actions
- Table 27: Point Grey tourism planning area planning directions and actions

CAFE

RIVER
VIEWS

fresh Handcraft
Food
Yallingup Organ
Coffee

Organic
Coffee
Handcraft
Food



1. Introduction

The Shire of Murray Local Planning Strategy (Strategy) comprises:

- Part 1 – Strategy; and
- Part 2 – Background Information and Analysis.

The Strategy applies to the area shown in Figure 2 – Local Planning Strategy Map.

This Strategy comes into operation on the day on which it is endorsed by the Western Australian Planning Commission (WAPC).

As required by Regulation 11 of the *Planning and Development (Local Planning Schemes) Regulations 2015*, the purpose of the local planning strategy is to:

- set out the long-term planning directions for the local government;
- apply any State or regional planning policy that is relevant to the Strategy; and
- provide the rationale for any zoning or classification of land under the local planning scheme.

The Strategy forms the strategic basis for the preparation, implementation and review of a new planning scheme, referred to as the Shire of Murray Local Planning Scheme No.6 (LPS6).

Figure 1 Western Australian Planning Framework



Source: WAPC, (2018)

2. Vision

The Strategy outlines the 15-year vision through to 2038 for how land use change and development will occur within the Shire of Murray. The vision has regard to the Shire's Plan for the Future ([council-plan-2023-2033](#)), but recognises that any community aspirations for future land use change and development must be balanced with the requirements of planning legislation and policy. The Strategy will provide for the expression of how broader State planning requirements can be applied and ultimately implemented at a local level.

The vision of the Strategy is:

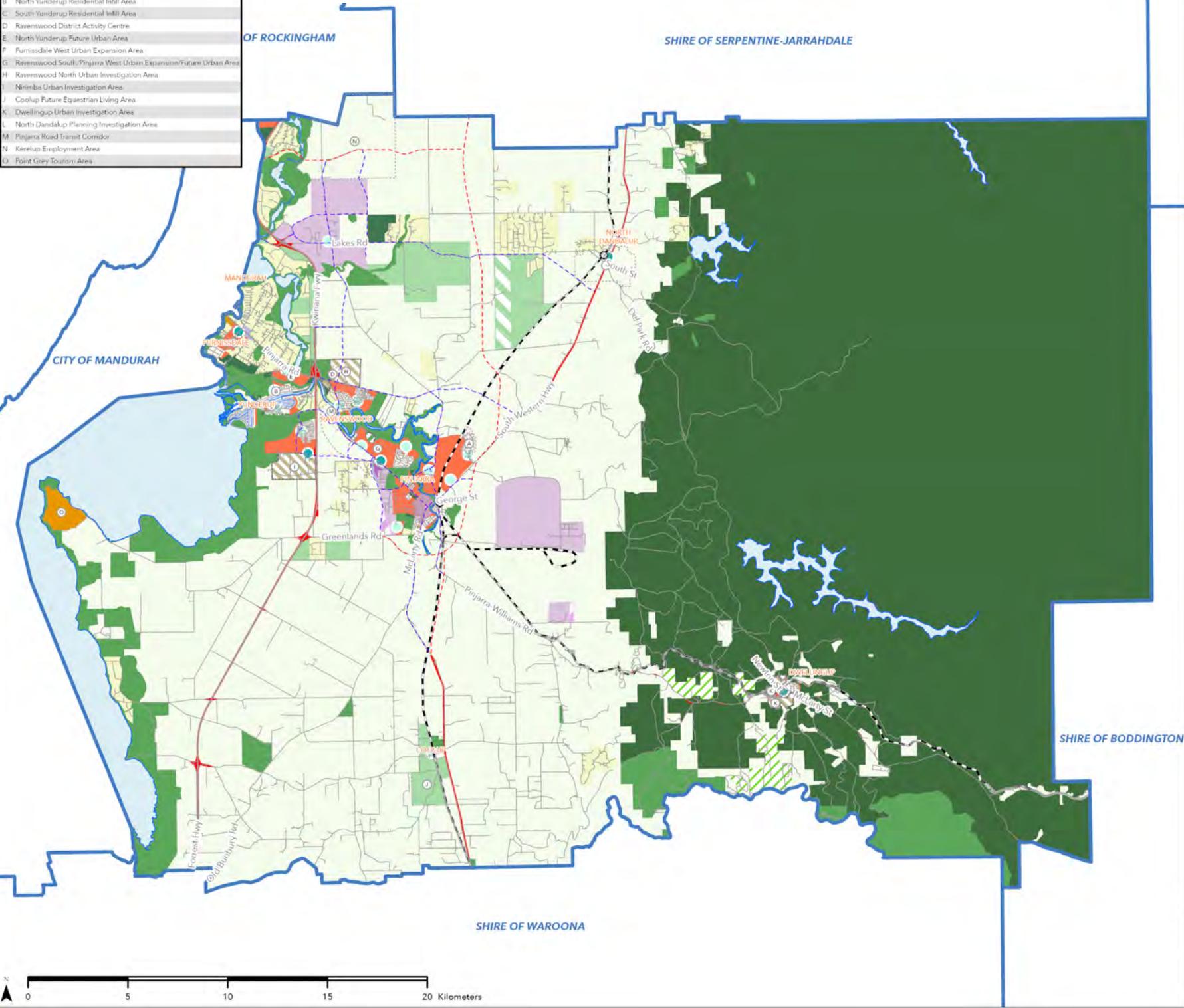
The Shire of Murray will grow as a well-connected, sustainable, and resilient place that respects its heritage, protects its natural assets and fosters economic and social opportunity while maintaining its unique character. Growth will be focused on strengthening existing towns and communities, ensuring they thrive as vibrant, diverse and well serviced places that provide diverse housing, employment and lifestyle choices. Efficient transport networks, high quality infrastructure and sustainable development will support a compact and connected urban form, while the Shire's waterways, rural landscapes and biodiversity will be safeguarded. Productive rural land will be protected from fragmentation and incompatible uses to support agriculture and the local economy. Climate responsive planning will enhance resilience to environmental challenges and a well-designed built environment will promote active lifestyles, social connectivity and overall community health and wellbeing.

The following key principles guide the planning directions and actions in order to achieve the vision.

1. Provide an adequate supply of suitable and appropriately located land for housing, employment, commercial activities, community and education facilities, recreation and open space to meet the needs of the growing community.
2. Develop a consolidated urban form that prioritises growth in Pinjarra as the primary town within the Shire and supports and strengthens other existing settlements, ensuring new greenfield development is limited to logical extensions of the existing urban footprint.
3. Integrate land use and transport planning to offer diverse transport choices, reduce reliance on private vehicles and promote active transport modes.
4. Provide a network of activity centre that are compact, mixed use and highly walkable, with Pinjarra as the primary centre for higher order uses and strategic employment.
5. Promote diverse housing and lifestyle choices, catering to a range of needs and preferences across urban and rural areas.
6. Provide for a variety of employment land to support local job creation, economic growth and community resilience.
7. Protect agricultural land, ensuring productive land is safeguarded from fragmentation and incompatible uses.
8. Protect and restore natural environments, including waterways, wetlands, and native bushland, to maintain biodiversity and ecosystem health.
9. Protect and sustainably manage water resources, ensuring the ongoing health of natural ecosystems and protection of public drinking water source areas.
10. Protect, conserve and provide for the continued use of cultural heritage places.
11. Protect and enhance the Shire's distinctive character and identity.
12. Promote climate responsive development, including sustainable transport, energy efficient buildings and low carbon urban design to mitigate the impacts of climate change.
13. Mitigate natural hazards, including bushfires, floods, and coastal risks, to protect people, property and infrastructure.
14. Maximise the efficient use of infrastructure and services to support the growing population.
15. Protect and enhance amenity and the health, safety and welfare of the community.

ID	Planning Area Name
A	Pinjarra North Residential Infill Area
B	North Yunderup Residential Infill Area
C	South Yunderup Residential Infill Area
D	Ravenswood District Activity Centre
E	North Yunderup Future Urban Area
F	Furnissdale West Urban Expansion Area
G	Ravenswood South/Pinjarra West Urban Expansion/Future Urban Area
H	Ravenswood North Urban Investigation Area
I	Ninimbs Urban Investigation Area
J	Coolup Future Equestrian Living Area
K	Dwellingup Urban Investigation Area
L	North Dandalup Planning Investigation Area
M	Pinjarra Road Transit Corridor
N	Kerelup Employment Area
O	Point Grey Tourism Area

Figure 2: Local Planning Strategy Map



Legend

- Local Government Boundary
- Planning areas
- Planning area reference
- Other Regional Roads
- Primary Regional Roads
- Activity Centre - Local
- Activity Centre - Neighbourhood

Urban growth and settlement

- Activity Centre Secondary
- Existing rural living footprint
- Existing urban footprint
- Future urban
- Future rural residential
- Rural residential investigation
- Urban investigation

Infrastructure

- Other regional roads
- Primary regional roads
- Railways
- Railway Stations
- Railway Lines

Economy and employment

- Existing industrial
- Future industrial
- Future tourism
- High priority agricultural land
- Industrial investigation
- Rural
- Service commercial

Environment and recreation

- Future environmental conservation
- Open space
- Open space investigation
- State forest
- Waterways

Note: the extent of proposed future land uses and/or planning areas are indicative only and intended as a guide for future planning. Relevant areas may be subject to additional planning actions and/or detailed planning processes - such as structure plans (precinct or standard) and local development plans in determining appropriate development controls such as building heights, densities and built form provisions.

3. Issues and opportunities

3.1 Overview

Consistent with the State Planning Framework, planning issues of relevance to the Shire of Murray are presented under the following themes:

- Community, urban growth and settlement
- Economy and employment
- Environment
- Infrastructure

For each planning issue identified, planning directions and actions have been outlined.

Planning directions are short statements that specify what is to be achieved or desired for the issue/opportunity. Each planning direction is supported by an action(s), that clearly and concisely outlines what is proposed and how it is to be undertaken, together with the rationale, timeframe and responsible party.



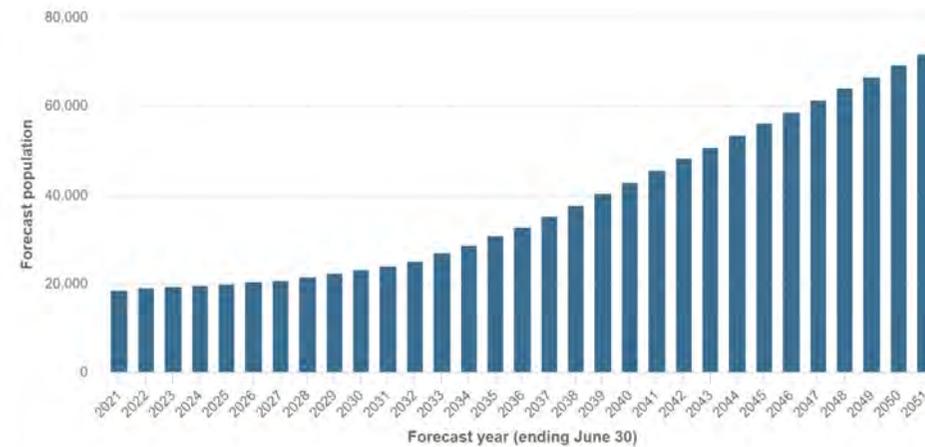


3.2 Community, urban growth and settlement

3.2.1 Housing

The Shire of Murray is expected to experience strong population growth over the next 15 years and beyond, with the growth rate forecast to accelerate from the early 2030's. From 2023 to 2038, the population is expected to nearly double from 19,252 to 37,794, with further significant growth to 2051. Careful planning is needed to ensure sufficient land supply, infrastructure coordination and a diverse housing stock to meet future needs.

Figure 3 Shire of Murray forecast population 2021-51



Source: id (informed decisions), (2023)

The Shire's population is currently highly dispersed across urban and rural areas. This provides a variety of lifestyle opportunities, however

also presents challenges in infrastructure delivery, environmental management, accessibility and social cohesion. To address these issues the Strategy promotes the consolidation of urban growth around existing towns and settlements, particularly Pinjarra as the primary centre, while limiting new greenfield development to logical urban extensions to avoid further population dispersion. This approach will enhance infrastructure efficiency, protect rural land, reduce environmental impacts, improve access to services and strengthen community vibrancy.

The WAPC's *South Metropolitan Peel Sub-regional Planning Framework* (Planning Framework) identifies significant land for long term urban growth, much of which is not required within this Strategy's timeframe. To support urban consolidation, new urban zoning should only occur where it clearly supports this objective. Some already zoned, yet undeveloped urban and urban deferred land is also now deemed unsuitable due to its location or site constraints. Growth areas identified on the Local Planning Strategy Map in Figure 2 provide for a sufficient and diverse land supply, ensuring market choice while maintaining a consolidated urban form.

The Shire's low density, detached housing pattern does not adequately meet changing needs, with smaller households, an ageing population, and housing affordability all driving demand for more diverse housing. The Strategy encourages a greater mix of housing types, particularly smaller dwellings in strategic locations close to services, supported by quality infrastructure and public amenity. Well planned medium and higher density development will support transport alternatives, reduce car dependency and improve sustainability.

Residential infill will further consolidate the urban form, increase density in key areas and improve housing choice. Targeted areas will

accommodate at least 1,080 new infill dwellings, aligning with the Planning Framework.

Table 1: Housing planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Housing	1. To ensure an adequate supply of appropriately zoned land to meet future housing needs.	1.1 Landowners to undertake further planning of land identified on the Strategy map as Future urban sufficient to support rezoning to Urban under the Peel Region Scheme and Urban Development under LPS6.	Section 4.1 of Part 2 recognises that there is need to increase the extent of residential land to accommodate forecast future population.	Ongoing
		1.2 Landowners to prepare local structure plans for land identified on the Strategy map as Future urban or Rural Residential.	Section 4.1 of Part 2 recognises that there is need to increase the extent of residential land to accommodate forecast future population.	Ongoing
		1.3 Shire to normalise existing approved structure plan areas that have been implemented, by suitably zoning land in LPS6 consistent with the relevant structure plan.	Section 3.5 of Part 2 recognises that several areas have been fully developed in accordance with an approved structure plan and should be appropriately zoned in the Scheme.	Short term (1-5 years)
		1.4 Shire to review all remaining structure plans following gazettal of LPS6 to ensure consistency with the directions of this Strategy and determine if each structure plan requires either revocation, amendment or is not affected by LPS6.	Section 3.5 of Part 2 recognises that several areas with approved structure plans should be reviewed to reflect the strategic direction of this Strategy.	Short term (1-5 years)

	1.5	Shire to undertake annual monitoring of the extent of the urban land supply to ensure sufficient land is available to meet the forecast population.	Section 4.1.3 of Part 2 recognises the need to maintain an adequate supply of land for future housing. This action will ensure land supply data remains current and responsive to population growth needs and provide an evidence-base for interventions should that be necessary.	Ongoing
	1.6	Landowners to undertake further planning to support amendments to LPS6 to zone land identified on the Strategy map as Rural Residential Investigation to Rural Residential and to prepare a structure plan to guide subdivision of the land. A key consideration is the suitability of the land for Rural Residential having regard for the high pressure gas pipeline traversing the land.	Section 4.1.3 of Part 2 recognises the need to maintain an adequate supply of land for future housing	Long term (10-15 years)
2. To consolidate the urban form to strengthen existing towns and settlements, precluding new greenfield development that are not logical extensions to the urban footprint.	2.1	Shire to review the extent of urban land required to accommodate the forecast population growth as part of a five yearly interim review of the Strategy.	Section 4.1.3 of part 2 recognises the need for an adequate and well-sequenced supply of land to meet forecast housing needs and prevent potential shortages that could impact affordability and growth.	Medium and long term (5-15 years)
	2.2	Shire not to support ad-hoc decisions on expanding urban zoned land that are inconsistent with the areas shown on the Strategy map.	Sections 4.1.1 and 4.1.3 of Part 2 recognises the existing dispersed nature of the population and the need to consolidate future growth around existing towns and settlements, particularly Pinjarra as the primary centre, while limiting new	Ongoing

greenfield development to logical urban extensions to avoid further population dispersion.

3. To increase average residential density, particularly in strategic locations.

3.1 Shire to ensure all structure plans include a dedicated housing section that:

- Applies the minimum and average residential densities specified in this Strategy or relevant local planning policy and identifies mechanisms to deliver these densities at both subdivision and development stages;
- Demonstrates how subdivision design, lot configuration and built form will achieve the targeted residential densities while maintaining and enhancing local character, streetscape quality and residential amenity;
- Provides for a diverse mix of housing types and sizes, including smaller lots, grouped and multiple dwellings and adaptable or universally designed homes to meet the evolving needs of the community, with particular emphasis on increasing the supply of affordable housing for young adults, first home buyers, key workers, older residents and smaller households;
- Sets indicative targets for housing diversity and affordability, such as a percentage of lots or dwellings suited to low to moderate income households and outlines implementation measures (e.g. development incentives, density bonuses, partnerships) to help achieve these outcomes;
- Identifies the infrastructure upgrades, service capacity and public realm improvements (e.g. open space, pedestrian and cycle networks, tree canopy and community facilities) required to

Section 4.2.1 of Part 2 recognises that the conventional approach to applying maximum residential densities via the R-Codes does not consistently deliver higher densities needed in key locations to realise the full benefits of compact urban development and a stronger mechanism is necessary for strategic locations, including activity centres and the transit corridor.

Ongoing

support increased residential density and diverse housing options, and outlines how these will be coordinated and delivered through subdivision design, development contributions or other mechanisms.

	3.2	Shire to seek minimum average urban density of at least 15 dwellings per gross hectare of urban land, noting this may still include larger lots in suitable locations, with higher densities located within the walkable catchment of activity centres and the proposed Pinjarra Road high priority transit corridor in accordance with Table 21 in Part 2.	As per the rationale for Action 3.1.	Ongoing
	3.3	Shire to include provisions in the LPS6 to enable an additional dwelling to be developed on corner lots with a residential density of R20 or greater, notwithstanding the applicable density code, provided the additional dwelling fronts the secondary street and the other design provisions of the relevant density code can be satisfied.	Section 4.2.1 of Part 2 recognises the need to increase overall residential densities. This action will provide a mechanism to encourage the development of an additional dwelling on corner lots in a way that increases active frontage and street activation and without significantly change to character of an area.	Short term (1-5 years)
	3.4	Shire to include provisions in LPS6 for power to extinguish developer restrictive covenants that discourage or preclude housing density and/or diversity targets from being achieved.	Section 4.2.1 of Part 2 recognises the need to increase overall residential densities. In some cases land developers place restrictive covenants on the titles of new lots that restrict the development of more than one dwelling, require minimum dwelling sizes and other design restrictions that can inhibit planned housing densities from being achieved.	Short term (1-5 years)
4. Plan for and deliver a wide range of housing types.	4.1	Shire to prepare a local planning policy to establish housing density and diversity targets for each residential locality.	Section 4.2.1 of Part 2 recognises the need for a wide variety of lot sizes and housing types within each residential locality.	Short term (1-5 years)

4.2	Shire to include provisions in LPS6 to permit all dwelling types in residential zones, including single houses, grouped dwellings, multiple dwellings.	Section 4.2.1 of Part 2 recognises the need for a wide variety of lot sizes and housing types within each residential locality.	Short term (1-5 years)
4.3	Shire to make provision for the land use interpretations and categories for 'Residential Aged Care Facility' and 'Independent Living Complex' in LPS6 with both uses being Discretionary 'D' uses in residential and mixed use zones, while being prohibited in industrial zones.	Section 4.2.1 of Part 2 recognises the need for a wide variety of lot sizes and housing types within each residential locality.	Short term (1-5 years)
4.4	Shire to include a SCA for that triggers a requirement for approval of all development on lots with a canal frontage and includes suitable development provisions. .	To enable the application of suitable development standards that reflect the orientation off development towards the canals.	Short term (1-5 years)
4.5	Shire to include provisions in LPS6 to ensure relocated dwellings and sea containers require development approval.	To ensure development approval is required for relocated dwellings and sea containers to enable amenity implications to be considered.	Short term (1-5 years)
4.6	Shire to rationalise the existing zones, reserves and land use categories in LPS4 to align with the model provisions when preparing LPS6.	To ensure consistency with the model provisions.	Short term (1-5 years)



3.2.2 Landscape, built form and character

The Shire of Murray's distinct identity is shaped by its diverse natural landscapes and strong rural and town based character. From the forested hills and ridgelines of the Darling Range, to the agricultural plains, meandering rivers and the Peel Harvey Estuary, these varied landscapes create a rich visual setting. The Shire's settlements reinforce this identity, with townsites like Pinjarra and Dwellingup characterised by a strong country town feel, a fine grain urban structure, and architectural styles that reflect local history and context.

The Strategy recognises that these qualities are highly valued by residents and visitors and contribute to the Shire's appeal and liveability. However, large scale industrial areas, infrastructure such as high voltage power lines and mining activities present visual and environmental challenges. While these land uses are essential to the local and regional economy, their scale and visibility require careful

siting, design and landscaping to reduce their impact on key view corridors and the broader landscape.

With significant urban growth anticipated, future development must be planned and designed to complement the Shire's landscape and built form character. This includes ensuring new subdivisions and town centre expansions incorporate site responsive design, maintain view corridors and promote architectural diversity that respects local form, scale and materials. Built form in prominent locations, including entry points, transport corridors and ridgelines, should reinforce a sense of place and contribute positively to the evolving identity of each community.

Table 2: Landscape, built form and character planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Landscape, built form and character	5. Protect and enhance distinctive landscapes and built form character	5.1 Shire to include a Special Control Area in LPS6 for the Darling Scarp. The objective of the SCA is to maintain and enhance the landscape amenity of this area and protect it from changes that would adversely affect its landscape values.	Section 4.2.2 of Part 2 recognises this area as the one of the Shire's most exceptional landscape features.	Short term (1-5 years)
		5.2 Shire to include a Special Control Area in LPS6 for land within 500m of:	Section 4.2.2 of Part 2 recognises landscapes shape the Shire's visual identity that play a crucial role in defining the experiences and perceptions	Short term (1-5 years)

- Kwinana Freeway/Forrest Highway;
- Pinjarra Road;
- Mills road;
- Fishermans Road/Herron Point Road;
- Old Bunbury Road; and
- Greenlands Road, west of Forrest Highway.

The objective of the SCA is to maintain and enhance the landscape amenity of these areas and protect them from changes that would adversely affect the landscape values and the SCA would include design guidelines to enhance visual amenity, including development setbacks; building, signage and car park design; visual buffers and landscaping provisions.

of residents and visitors and that the landscape is often experienced by travelling along highways and key rural roads.

5.3	Shire to prepare a local planning policy aimed at requiring visual landscape impact assessments for structure plans and development proposals that may impact landscapes.	Section 4.2.2 of Part 2 recognises landscapes shape the Shire's visual identity that play a crucial role in defining the experiences and perceptions of residents and visitors and that the landscape can be significantly impacted by development.	Short term (1-5 years)
5.4	Shire to prepare a local planning policy that establishes clear objectives and guidelines for development interface with rural land, including consideration of buffers and screening.	Section 4.2.2 of Part 2 recognises landscapes shape the Shire's visual identity that play a crucial role in defining the experiences and perceptions of residents and visitors and that the rural landscape can be significantly impacted by development.	Short term (1-5 years)
5.5	Shire to prepare a local planning policy that provides general guidance on the retention and enhancement of character in each of the Shire's settlements. This should reference the specific character descriptions and statements of the settlements and should apply	Section 4.2.2 of Part 2 recognises that built form character is a key aspect of what makes the Shire of Murray and each settlement within the Shire distinct and valued by residents and visitors. The policy will help to ensure that development responds to and enhances the distinctive characteristics of each town/settlement.	Short term (1-5 years)

to all new structure plans and development applications of all scales that have a visual impact.

	<p>5.6 Shire to review the existing Natural Landscape in Urban Areas local planning policy to protect, enhance and integrate natural landscapes, including significant trees and tree stands within urban developments</p>	<p>Section 4.2.2 of Part 2 recognises landscapes shape the Shire’s visual identity that play a crucial role in defining the experiences and perceptions of residents and visitors. This action will ensure the policy is adequate to protect, enhance and integrate natural landscapes into new developments.</p>	<p>Short term (1-5 years)</p>
	<p>5.7 Shire to review the Signs Local Planning Policy to preclude third party advertising signage and large format signage, with particular consideration given to illuminated and electronic signage.</p>	<p>Section 4.2.2 of Part 2 recognises that built form character is a key aspect of what makes the Shire of Murray and each settlement within the Shire distinct and valued by residents and visitors. This will ensure these signs do not detract from the visual landscape quality of key transport routes.</p>	<p>Short term (1-5 years)</p>
<p>6. Enhance the experience of the river landscape and allow community easily view and access the river foreshore areas.</p>	<p>6.1 Shire to include the following in district structure plans for new urban development located adjacent to waterways:</p> <ul style="list-style-type: none"> • a predominantly continuous foreshore road and pathway; • consideration on appropriateness and location of suitable river activity nodes; • layout which integrate with and enhances the potential of any river activity nodes in terms of open space layout, road and pathway connectivity, complementary land uses and development intensity. 	<p>To enhance access, amenity and public activity along river foreshore areas by ensuring high levels of public access, connectivity, public views, and passive surveillance. This will also prevent perceived privatisation or the extension of private gardens into foreshore land, which can discourage public use, restrict visual and physical access to the river and undermine the public function of these spaces.</p>	<p>Short term (1-5 years)</p>
<p>7. Provide for high design quality and</p>	<p>7.1 Shire to establish a design review panel or share an existing panel with another local government/s to</p>	<p>To ensure a high standard of design is achieved consistent with the principles in State Planning Policy 7.0 Design of the Built Environment.</p>	<p>Short term</p>



3.2.3 Culture and heritage

The Shire of Murray has a rich cultural heritage, shaped by both Aboriginal and European histories. The Bindjareb and Wilman Noongar people have been custodians of this land for tens of thousands of years, with a deep spiritual connection to its waterways, reflected in sacred sites and cultural traditions. The Aboriginal Heritage Act protects significant places, preserving this enduring relationship with Country.

European settlement began in the 1830s, establishing Pinjarra as one of Western Australia’s earliest towns. This period saw conflict with the local Aboriginal population, including the Pinjarra Massacre of 1834. Over time, agriculture, timber milling, and transport shaped the region, with prominent families like the McLartys influencing its development.

As the Shire continues to grow, preserving its Aboriginal and European heritage will be crucial to maintaining its unique identity, ensuring cultural continuity, and enhancing the quality of life for current and future generations.



Table 3: Culture and heritage planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Culture and Heritage	8. Protect, conserve and provide for the continued use of places of historic heritage significance.	8.1 Shire to prepare and adopt a Heritage List, based on its Local Heritage Survey.	To provide statutory protection for places of cultural heritage significance.	Short term (1-5 years)

	8.2	Shire to revise the Shire's Heritage Places local planning policy.	To provide guidance on how the Shire will exercise discretion in considering proposals affecting places of cultural heritage significance.	Short term (1-5 years)
	8.3	Shire to prepare local planning policies for any 'Heritage Areas' identified in the Heritage List.	To provide guidance on how the Shire will exercise discretion when considering proposals affecting a heritage area.	Medium term (5-10 years)
9. Deliver public art through the land development process	9.1	Shire to prepare a Public Art local planning policy, which provides for public art plans and developer contributions and prepares a supporting public art strategy.	To ensure public art is incorporated as a component of development, enhancing local identity and amenity and contributing to a vibrant and visually engaging public realm.	Medium term (5-10 years)



3.2.4 Rural land use

The Shire of Murray’s rural areas support a diverse mix of land uses, including traditional broadacre agriculture, equine enterprises, mining, low impact tourism and lifestyle farming. Economic shifts and generational change have led to a decline in conventional farming and an increase in boutique agriculture, hobby farming and agri-tourism. Agriculture remains a vital part of the local economy, with strong potential for innovation, diversification, and value adding.

The Shire’s peri-urban location and access to major transport corridors enhance its appeal for sustainable and diversified agricultural activities. However, environmental constraints, particularly on the coastal plain, such as high water tables, poor nutrient retaining soils and seasonal inundation, limit the suitability of traditional intensive farming. In response, closed loop and hydroponic systems offer environmentally responsible alternatives.

Rural land use planning must proactively manage land use conflict and prevent fragmentation, particularly in the Priority Agricultural Precincts around Dwellingup. Rural living should be limited to areas already identified in the Planning Framework to avoid inefficiencies in infrastructure provision and the erosion of productive land.

The equine industry is growing, with established facilities including the Murray Regional Equine Centre, Pinjarra Park Racecourse and Pinjarra Paceway. These should be reflected by flexible special use zones and the land use permissibility in the rural zone also should provide flexibility to enable supporting uses including stabling, training and agistment.

Preserving rural character, scenic landscapes and biodiversity remains a core objective. There is strong community support for initiatives that assist landowners in environmental stewardship. A new Environmental Conservation zone will be critical to protecting ecologically significant and constrained land that has traditionally been zoned for rural purposes.

Industrial and agri-industrial land uses that pose environmental or amenity risks, such as tanneries and bio-fertiliser plants have been highly controversial whenever proposed and are not considered suitable within the Shire’s rural zones. The Keralup landholding given its large size and buffers may be suited to such uses and has the potential to complement development in the Nambelup Industrial Area.

Table 4: Rural land use planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Rural land	10. Protect priority agricultural land	10.1 Shire to include a Priority Agriculture zone in LPS6 and provisions aimed at prioritising agriculture, including provisions and:	To protect priority agricultural land rural land from complicating land uses.	Short term (1-5 years)

- precluding sensitive land uses within, adjacent to or within close proximity to priority agricultural land, which could prejudice current or potential agricultural activities and production.
- precluding further subdivision of Rural zoned land except by exception as set out in Development Control Policy 3.4.

11. Make provision for a suitable range of land uses within rural zones	11.1	Shire to include appropriate land use designations for the rural zones in LPS6 taking into consideration State Planning Policy 2.5, including small scale tourism and hospitality uses such as tourist and visitor accommodation or brewery as a 'D' or 'A' use.	To support economic diversification, rural resilience and appropriate land use flexibility in line with <i>State Planning Policy 2.5 – Rural Planning</i> , including enabling low impact, small-scale tourism and hospitality uses.	Short term (1-5 years)
	11.2	Shire to prepare a local planning policy to guide discretion for the location, scale, design of tourism and hospitality uses in the Rural zone.	To provide guidance on circumstances where these would be considered appropriate and includes suitable design criteria.	Medium term (5-10 years)
	11.3	Shire to prepare a local planning policy to guide discretion for the agri-industry uses in the Rural zone.	To provide guidance on circumstances where these would be considered appropriate and includes suitable application requirements and development criteria.	Short term (1-5 years)
	11.4	Shire to review the 'Horticultural Development within the Peel Harvey Coastal Plain Catchment' local planning policy to align with the Planning for Water State Planning Policy 2.9, once finalised.	To provide guidance on how the Shire will exercise discretion on intensive agricultural uses.	Short term (1-5 years)
12. Provide for racing and non-racing equestrian uses in the rural zone	12.1	Shire to zone the land occupied by the Pinjarra Park Raceway, Pinjarra Paceway and Murray Regional Equestrian Centre Special Use – Equine in LPS6 to accommodate a flexible range of equine related uses.	To provide flexibility in the range of equine related uses that can be established at each specified sites.	Short term (1-5 years)

13. Manage environmental impacts of rural land uses	13.1	Shire to include provisions in LPS6 for equine related uses to minimise impacts on the local environment, including land degradation and damage to trees.	To ensure rural uses do not adversely impact the environment.	Short term (1-5 years)
14. Provide intergenerational farming	for 14.1	Shire to review Ancillary Dwellings in Rural Residential Zones local planning policy to enable ancillary dwellings in Rural zones to have a plot ratio area up to 100m ² .	To make provision for intergenerational farmers to stay on farm.	Short term (1-5 years)
15. Provide contemporary planning framework for identified rural living areas	a 15.1	Shire to rationalise the existing land use and management provisions applicable to Rural Residential and Rural Smallholdings zones in LPS6.	To simplify LPS6, reduce duplication and remove provisions no longer needed.	Short term (1-5 years)
	15.2	Shire to rezone the existing two to four hectare 'Rural' zoned properties adjacent to the Coolup town site to 'Rural Residential' and introduce suitable land use and management provisions for this land.	To introduce land use and management provisions to lots already rural residential scale.	Short term (1-5 years)



LIFEGUARD



ST. JAMES SWIMMING CLUB

LANE

3.2.5 Parkland and community facilities

Parkland and community infrastructure is essential for fostering social cohesion, enhancing quality of life and supporting the health, education, recreation and wellbeing of the growing community. The provision of community infrastructure, including public open space, recreational and community facilities are guided by the Shire’s Public Open Space Strategy, Community Infrastructure Plan and Sport and Recreation Infrastructure Plan.

Education provision, however, is primarily led by the State Government. The Shire’s anticipated population growth will require significant investment in primary, secondary, and vocational education facilities to ensure equitable access to education and training opportunities. Enabling residents to access education close to home will provide accessible learning opportunities, reduce the need for travel outside the Shire and help retain and upskill the local population for long term social and economic resilience.

Table 5: Parkland and community facilities planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Parkland and community facilities	16. Provide sufficient parkland and community infrastructure to meet the needs of the forecast population	16.1 Shire to review the Shire of Murray Community Infrastructure Plan.	To provide a strategic basis for identifying the community infrastructure needed to support the Shire’s growing population.	Short term (1-5 years)

	16.2	Shire to ensure that structure plans make provision for community infrastructure sites (including sites for sports and recreation facilities) in accordance with latest Community Infrastructure Plan and Sport and Recreation Infrastructure Plan.	To plan for and set aside suitable land for the community infrastructure needed to support the Shire's growing population.	Ongoing
	16.3	Shire to include provisions for a Developer Contribution Plan for Community Infrastructure Contributions in LPS6.	To provide a statutory mechanism for the Shire to obtain contributions from developers toward community infrastructure to meet the needs of its growing population in accordance with <i>State Planning Policy 3.6 – Infrastructure Contributions</i> .	Short term (1-5 years)
17. Provide sufficient government and non-government primary and secondary school sites to meet the needs of the forecast population	for 17.1	Shire to ensure that structure plans make provision for government and non-government primary and secondary school sites in accordance with Operational Policy 2.4 – Planning for school sites, generally in the locations shown in Figure 54 in Part 2.	To plan for and set aside suitable land for government and non-government primary and secondary school sites needed to support the Shire's growing population.	Ongoing
18. Provide for a suitable site for the longer term development of a vocational education (TAFE) facility in the Ravenswood District Centre.	18.1	Shire to include provision for a vocational education (TAFE) site in the precinct structure plan for the Ravenswood District Activity Centre, which should be integrated into the urban fabric of the centre.	To plan for and set aside well located land for the longer term development of a vocational education site to support the Shire's growing population.	Short term (1-5 years)

<p>19. Provide flexibility for the establishment of research, training and early learning centres in suitable zones.</p>	<p>19.1 Shire to provide discretion for the approval of research, training and early learning centres in appropriate zones under LPS6.</p>	<p>To provide flexibility for the establishment of research, training and early learning centres in suitable locations to meet growing community needs.</p>	<p>Short term (1-5 years)</p>
--	--	---	-----------------------------------



3.2.6 Hazards

The Shire of Murray is exposed to natural hazards, particularly bushfire, flooding and coastal processes, with risks expected to increase due to climate change, including hotter, drier conditions, more extreme weather events and sea level rise. To mitigate these risks, hazard considerations are integrated into the planning framework to ensure future development is resilient.

Much of the Shire is designated as bushfire prone under State Planning Policy 3.7 (SPP3.7). A bushfire hazard assessment has been undertaken for areas identified for land use change or intensification, with specific assessments for Dwellingup due to its forest setting. Future development will require bushfire management plans and building attack level assessments in accordance with SPP3.7.

Flooding risks are managed through floodplain mapping by the Department of Water and Environmental Regulation, identifying flood ways and flood fringe areas. Development in flood ways is restricted, while development in flood fringe areas must adhere to minimum habitable floor levels. A special control area is proposed to trigger development approvals for flood prone areas, ensuring adequate flood impact assessment.

Coastal hazards, including erosion and inundation, are addressed through the Shire's Coastal Hazard Risk Management and Adaptation Plan, aligned with State Planning Policy 2.6. The plan incorporates sea-level rise projections to 2120 and identifies areas at risk. A special control area and local planning policy will require development approval in these areas to ensure appropriate hazard mitigation measures are implemented.



Table 6: Hazards planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Natural Hazards (bushfire, flooding, risks)	20. Protect and responsibly manage bushfire, river flood and coastal hazard threats	20.1 Shire to introduce a Special Control Areas in LPS6 relating to: <ul style="list-style-type: none"> • Floodplains; and • Coastal hazards. 	To trigger development applications for all development within identified risk areas and provide guidance for considering hazard risks.	Short term (1-5 years)
		20.2 Shire to prepare a Coastal local planning policy.	To provide guidance on how the Shire will exercise discretion when determining applications for development in areas at risk of coastal hazard.	Short term (1-5 years)



3.3 Economy and employment

3.3.1 Employment needs

The Shire of Murray faces significant economic and demographic challenges, including an ageing population, low workforce participation, lower income and education levels, and a high proportion of residents commuting to jobs outside the Shire. Only 34% of residents both live and work locally, highlighting a mismatch between local skills and available jobs. These factors contribute to Murray being one of the most disadvantaged local governments in Greater Perth.

A key priority of the Strategy is to improve economic resilience by strengthening local employment opportunities, attracting and retaining younger, skilled workers and supporting business growth. This includes planning for well-located employment land, flexible land use settings, and vibrant, connected centres with access to education, training, housing and cultural facilities.

Murray currently has an employment self-sufficiency rate of 85%, exceeding the Peel region's 2050 target of 79%. Maintaining this level will require a significant increase in jobs, 15,800 by 2038 and 39,509 by 2051. While population driven employment in sectors such as construction, retail, health, and education will grow with population increases, around 7,486 additional jobs must come from strategic sectors that rely on industry diversification, infrastructure investment, and workforce development.

The Shire has a range of economic assets, including the Nambeelup Industrial Area, strategic freight connections, agricultural land and growing tourism, equine and resource industries that provide opportunities for strategic jobs growth. However, 38% of current employment is concentrated in mining and metal manufacturing, particularly related to Alcoa's operations. With the mine lease currently ending in 2045, this presents a long term economic risk that will require focus on a shift toward more a diversified local economy.

To respond, the Strategy focuses on protecting employment land, providing land use flexibility and providing for enabling infrastructure and digital connectivity. Supporting home based business, attracting remote professionals and providing high quality living environments will also be key to growing a skilled and sustainable workforce.

The Strategy focusses on providing for sufficient employment land of various types, enabling land use flexibility and improving infrastructure to support industry growth. Additionally, enhancing digital connectivity, home based business opportunities and high amenity living environments will help attract professionals and teleworkers. The Shire's Economic Development Strategy will complement this by identifying priority industries and investment attraction measures.

Table 7: Employment needs planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Employment needs	21. Provide sufficient population and strategic jobs to meet local needs as the population grows.	for 21.1 Shire to target maintaining the current 85% employment self-sufficiency for the Shire	To achieve the region self-sufficiency target in the Planning Framework, the Shire will need to provide a greater share of population driven and strategic opportunities than other Peel local governments as it has a number of strategic assets not otherwise found in the region.	Ongoing
	22. Plan for and attract a diverse range of strategic industries as well as location-flexible businesses and jobs.	22.1 Shire to advocate for business attraction, investment, and growth, focusing on both strategic industries and location-flexible enterprises.	To identify target industries and create the conditions necessary to attract strategic employment and location-flexible businesses, such as those enabled by remote work or digital infrastructure to strengthen the Shire's economic resilience and employment diversity.	Ongoing



Target

OFFICE/MEDICAL SUITE

OPENING SOON

OFFICE/MEDICAL SUITE

OPENING SOON

3.3.2 Activity centres

A well planned and strategically distributed network of activity centres will drive economic growth, employment and community wellbeing across the Shire of Murray. Based on a detailed Needs Assessment, the Strategy establishes a hierarchy of centres to meet forecast population growth through 2038 and beyond, ensuring sufficient land is reserved for longer term expansion.

Retail floorspace is expected to grow from 16,300m² to 28,845m² by 2038 and to 74,204m² by 2051, while non-retail floorspace (offices, health, civic, etc.) is projected to increase from 76,000m² to 147,000m² by 2038 and 221,100m² by 2051. Improvements in centre density, amenity and mixed use development will enhance local expenditure retention and reduce car dependency.

The Strategy provides a framework for planning and development of activity centres through precinct structure planning to deliver compact, accessible and vibrant centres. Smaller commercial sites in Coolup, North Yunderup, Pinjarra (North) and South Yunderup will continue serving important neighbourhood functions, with mechanisms to protect their ongoing role. The Nambelup Industrial Area is also planned to include limited commercial and service amenities to attract and retain a skilled workforce, with capacity to expand as employment density increases.



Table 8: Activity centres planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Activity centres network	23. Provide for a robust hierarchy and network of activity centres that meets community needs	23.1 Shire to apply the activity centre network as shown on the Strategy Map at Figure 2 in part 1 and Tables 31 and 32 in Part 2 and use this to inform zonings in LPS6, the preparation of structure plans and decisions on development applications.	To provide a planned and accessible network of activity centres to meet growing community needs.	Ongoing
		23.2 Shire to zone the following sites under LPS6 as either commercial or Rural town site as specified below: Commercial <ul style="list-style-type: none">• Carcoola, Pinjarra (North)• Pelican Road, South Yunderup• North Yunderup Road, North Yunderup• Ronlyn Road (South), Furnissdale Rural Townsite <ul style="list-style-type: none">• Coolup	These sites are a mix of individual commercial uses and rural townsites that are too small to qualify as activity centres.	Short term (1-5 years)
		23.3 Shire to identify the scale of the North Dandalup Town Centre area to accommodate long term urban land and include suitable zone and provisions in LPS6 to ensure any residential development within the centre area is flexible in design and can accommodate commercial uses at ground level in the future, with an activity centre core that is protected for longer term shop retail (eg. supermarket) uses.	To protect central land within the North Dandalup town centre until commercial development becomes viable.	Short term (1-5 years)

			23.4	Shire to include provisions in LPS6 to ensure any residential development within the Dwellingup town centre core is flexibly designed to accommodate commercial uses at ground level in the future, with an activity centre core that is protected for shop retail uses.	To protect central land within the Dwellingup town centre for future commercial purposes.	Ongoing
			23.5	Shire to provide for small corner stores in LPS6 as discretionary land uses within the urban areas, provide for these at the centre of residential neighbourhoods in structure plans and prepare a local planning policy to guide the location and design of these uses.	To make provision daily goods and services to be provided within walking distance of residents.	Short term (1-5 years)
			23.6	Shire to include the interpretation of 'Freeway service centre' in LPS6 and zone the established Freeway Service sites in West Pinjarra Special Use - Service Centre with key development controls generally consistent with DC Policy 1.8.	To make provision for the established Freeway Service Centres to reflect DC Policy 1.8..	Short term (1-5 years)
Development design	24. Ensure well designed activity centres		24.1	Landowners to prepare precinct structure plans for each Neighbourhood Activity Centre proposed under this Strategy prior to subdivision or development proceeding.	To ensure comprehensive planning and a high standard of design	Medium Term (5-10 years)
			24.2	Landowners to prepare local development plans for local activity centres proposed under this Strategy prior to subdivision or development.	To ensure comprehensive planning and a high standard of design	Ongoing (1-15 years)
			24.3	Shire to include provisions in LPS6 aimed at establishing street based, compact, mixed-use, walkable activity centres.	To ensure a high standard of design outcome for centres.	Short term (1-5 years)

24.4	Shire to include objectives and key development standards in LPS6 for all Centre, Commercial and Mixed Use zones.	To ensure a high standard of design outcome for these areas.	Short term (1-5 years)
24.5	Shire to prepare a local planning policy to incorporate design guidelines for development within all Centre, Commercial and Mixed Use zones.	To ensure a high standard of design outcome for these areas.	Short term (1-5 years)



3.3.3 Industry

The Shire of Murray will require industrial land to support both population driven and strategic employment needs. The Strategy provides sufficient land availability to accommodate future industries and priority economic initiatives.

The Nambeelup Industrial Area, a key strategic project, spans around 1,000 hectares and is expected to provide employment for up to 33,000 people in the longer term, focusing on food manufacturing, logistics, research and training. The first 25 hectares is largely developed, with 850 hectares already zoned. The Pinjarra Industrial Area has 90 hectares of industrial land, including zoned land, Industrial Expansion and Investigation areas, ensuring ongoing light industrial supply.

The former Gallium Plant site in Oakley, with 100 hectares of zoned industrial land, faces constraints such as isolation, lack of services, and potential amenity impacts. A structure plan is needed to determine appropriate land uses. Similarly, the Alcoa alumina refinery, a major employer, faces zoning and environmental challenges as Pinjarra expands, necessitating a review of its western expansion plans.

A 1,600 hectare State owned landholding in Keralup is under investigation for alternative non-urban employment uses, potentially accommodating agri-industry activities to complement the adjacent Industrial Area. Additional service commercial uses have been planned along key road frontages in the Nambeelup and Pinjarra Industrial Areas and in Barragup and Furnissdale.

Table 9: Industry planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Industrial and service commercial based employment land	25. Provide sufficient industrial and service commercial land for community needs	25.1 Shire to introduce new general industry, light industry and service commercial zones in LPS6 with supporting objectives and key development standards.	To ensure sufficient land is set aside for economic and employment purposes.	Ongoing
		25.2 Shire to progressively zone land for general industry, light industry and service commercial purposes in accordance with that shown on the Strategy map at Figure 2 of Part 1.	To ensure sufficient land is set aside for economic and employment purposes.	Ongoing

	25.3	Shire to focus service commercial uses into identified industrial or activity centre rather than in out of centre locations, excluding Pinjarra Secondary Activity Centre where these service commercial uses are otherwise provided for around the periphery of the nearby Pinjarra Industrial Area.	To avoid out of centre development.	Ongoing
	25.4	Shire to include land in structure plans for the Nambeelup Industrial Area to allow limited shop retail uses, commercial, hospitality and health uses to support workers, based on needs assessment.	To provide targeted commercial and service amenities that will help attract and retain a skilled workforce, improve daily convenience for employees and support the long-term functionality and competitiveness of the industrial area as it matures.	Ongoing
26. Provide Container Deposit Scheme Infrastructure	for 26.1	Shire to include land use definitions and permissibilities for Container deposit recycling centre, with this use being Permitted 'P' in Industrial zones and Discretionary 'D' in Service Commercial, Commercial and Centre zones.	To make provision for Container Deposit Scheme Infrastructure.	Short term (1-5 years)
	26.2	Shire to prepare a local planning policy based generally on the model in the Container Deposit Scheme Infrastructure Position Statement to set out suitable exemptions from the requirement to obtain development approval for smaller scale facilities as well as location and development provisions to manage associated amenity impacts.	To make provision for Container Deposit Scheme Infrastructure.	Short term (1-5 years)
27. Provide commercial vehicle parking	for 27.1	Shire to include land use definitions and permissibilities for Commercial Vehicle Parking in LPS6, with this use being Discretionary 'D' in Residential and Rural Residential and Rural zones. .	To make limited provision for the parking of commercial vehicles in suitable zones.	Short term (1-5 years)

	27.2	Shire to review the Commercial Vehicle Parking local planning policy.	To outline how the Shire will exercise discretion for the Parking of Commercial vehicles.	
28. Ensure an adequate buffer is maintained between the Alcoa refinery, Pinjarra town and residential areas	28.1	Shire to request the Commission to amend the Peel Region Scheme to remove the portion of the industrial zoning related to the Alcoa refinery located to the west of the existing residue storage areas and once completed amend LPS6 accordingly.	To avoid land use conflict with the Secondary centre and planned urban areas.	Short term (1-5 years)
29. Ensure the Oakley Road Industrial zone is comprehensively planned prior to further subdivision or development	29.1	Shire to include provisions in LPS6 to require a local structure plan to be prepared and approved prior to further subdivision and development of land within the Oakley Road industrial area.	To ensure subdivision or development only proceeds following comprehensive planning.	Short term (1-5 years)



3.3.4 Health and education

The Shire of Murray has an ageing population, higher rates of reported health conditions and lower access to preventative health services compared to Greater Perth. In response, the Murray Health Futures Steering Committee is exploring the establishment of a health hub near Murray Districts Hospital in Pinjarra and also considering the need for a new public hospital to meet the long-term demands of the Peel region. A detailed health and social needs analysis has been prepared to assess population demographics, health services and workforce requirements. Based on Rockingham Hospital as a benchmark, a similar facility in Murray could support approximately 1,070 jobs.

To address lower education levels and growing demand for vocational training, a new vocational education facility is also being considered.

Applying Greater Perth's student to population ratio, the Shire would need to accommodate 924 students by 2038 and 1,755 by 2051, supporting at least 138 jobs initially, with potential for expansion.

A co-located health and education precinct has been identified in Ravenswood's northern town centre to ensure accessibility and integration with the Mandurah–Pinjarra transit corridor. A 4.6ha site is proposed for health services and 2.3ha for education, with opportunities for shared infrastructure to improve efficiency. The design should integrate with the activity centre to enhance synergies, pedestrian access, and local economic benefits.

Table 10: Health and education planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Health and vocational education	30. Protect strategically located land for longer term hospital/health and vocational education facility.	30.1 Shire to make provision in the Ravenswood District Centre Precinct Structure Plan for a health precinct and vocational education facility.	To ensure well located land is protected for a longer-term health and vocational education needs.	Short term (1-5 years)



OVERHILL CUP
TRAILS & VISITOR CENTRE

MARRINUP ST
MOORE ST

3.3.5 Tourism

The Shire of Murray's proximity to Perth, combined with its rural landscapes and rich cultural heritage, makes it an attractive tourism destination. In 2021-22, tourism generated \$63.2 million in economic output and supported 341 local jobs, with approximately 377,000 visitors each year, including both day trippers and overnight guests.

Tourism in the Shire is centred around three key areas. Dwellingup is a renowned national trails town, offering nature-based experiences, adventure activities, and access to Lane Poole Reserve. Pinjarra, as one of the State's earliest settlements, is home to a collection of well-preserved 19th-century buildings, a heritage railway precinct, and significant Aboriginal cultural heritage. The waterways, including Yunderup, Ravenswood, and Furnissdale, provide scenic access to the river and estuary, catering to recreational boating and house boating.

With its diverse natural and built attractions and its convenient location just an hour from Perth, the Shire has significant potential for tourism expansion. The Strategy will support this by providing new tourism uses, enhancing the appeal of key destinations and facilitating a broader range of short-stay accommodation options in high amenity areas.



Table 11: Tourism planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe		
Tourism	31. Encourage well located tourism development	<p>31.1 Shire to include provisions in LPS6 to:</p> <ul style="list-style-type: none"> • Introduce a new tourism zone for tourist related uses and short stay accommodation and apply this zone to key locations with high tourism potential to protect these sites for tourism purposes, with provisions to guide development outcomes. • Include land use categories and permissibilities for short stay accommodation, including Short Stay Rental Accommodation and Tourist and Visitor Accommodation options in urban areas and low-key short stay accommodation in rural areas. • Include land use categories and permissibilities for a range of hospitality and event venues in urban areas and low-key facilities in rural areas. 	To provide flexibility for establishment of tourism uses.	Short term (1-5 years)		
		<p>31.2 Shire to prepare an Unhosted Short Term Rental Accommodation local planning policy to provide exemptions from development approval for this land use category where suitable and set out location and development provisions where development approval is required.</p>			To provide for development approval exemption for Hosted Short Term Rental Accommodation where suitable and outline how the Shire will exercise discretion where approval is required.	Short term (1-5 years)
		<p>31.3 Shire to prepare a Tourism in Rural Areas local planning policy to ensure development is of a suitable location, scale and design that reflects the rural character and does not constrain rural productivity.</p>			To ensure tourism uses is appropriate to the rural context, does not impact on rural character or amenity nor impact rural productivity of rural land.	Short term (1-5 years)

31.4	Shire to designate Lot 460 South Western Highway, Blythewood as an Additional Use site to facilitate a park home park use	The property has unique physical and locational attributes, being located adjacent to the Pinjarra townsite, opposite the trotting facility, and wedged between the highway and the river. These attributes provide opportunity for well serviced tourist development. Approval has previously been granted to a combined caravan park and park home development. This action will facilitate a development mix generally consistent with the approval.	Short term (1-5 years)
------	---	---	---------------------------



3.3.6 Murrayfield Airport

Murrayfield Airport has the potential to become a key infrastructure asset, supporting regional economic diversification and job creation through aviation related businesses. Opportunities include aviation education and training, tourist and recreational flights, hangar rentals, and aircraft maintenance services. The airport could also play a role in regional transport, particularly as advancing aviation technology improves connectivity.

Development of the site is still in its early stages, with an approved masterplan outlining provisions for expanded runways, a flying academy, aviation club facilities, hangars, and administration buildings. To fully realise its potential, a flexible special use zoning will be necessary to accommodate emerging opportunities and support the airport's long term growth as a driver of economic development.

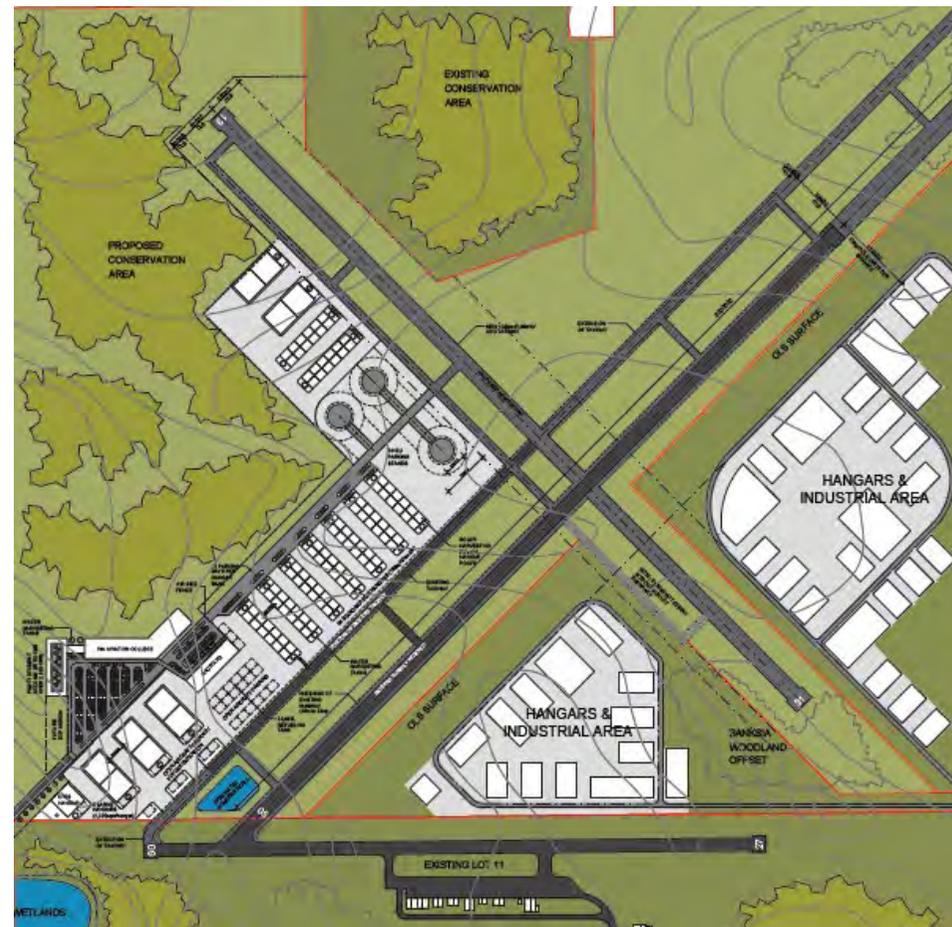


Table 12: Murrayfield airport planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Murrayfield Airport	32. Provide flexibility in the zoning of the Murrayfield Airport site.	32.1 Shire to zone the Murrayfield Airport site Special Use in LPS6 with provisions which provide flexibility for a range of potential aviation and support related uses to establish at the site and a structure plan/local development plan to guide development of the site.	To provide flexibility to enable aviation related opportunities to be for establishment of tourism uses.	Short term (1-5 years)

32.2 Landowners to prepare a Local Development Plan for the overall Murrayfield Airport site prior to subdivision or development being undertaken.



3.3.7 Resource management (basic raw materials and mining)

Basic raw materials (BRM) such as sand, clay, and gravel are essential for construction but are increasingly constrained by development and environmental factors. Ensuring access to BRM near future growth areas is critical for keeping housing and infrastructure costs manageable. The State Government has sought to avoid urban development in low-lying areas like Keralup due to BRM availability. In the Shire of Murray, long term access to sand, particularly from Lake Clifton, will be essential for future development.

The Department of Mines, Industry Regulation and Safety identifies two BRM site categories: Significant Geological Supplies (SGS), which require long-term protection (none are mapped in the Shire), and

Extraction Sites (ES), which are commercial operations. The Shire has seven ES, including one clay site and six sand sites.

In addition to BRM, the Shire contains mineral sand deposits, with Doral operating a short term mineral sands mine at North Dandalup – Keysbrook. Bauxite mining is also significant, with Alcoa extracting bauxite under a State Agreement until at least 2045.

Future land use planning must balance resource protection with environmental and amenity considerations, ensuring appropriate zoning, buffers, and rehabilitation strategies to manage the long-term impacts of extraction and mining activities.

Table 13: Resource management planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Resource management	33. Protect basic raw materials and mineral resources and effectively manage extraction.	33.1 Shire to include provisions in LPS6 and prepare a local planning policy to: <ul style="list-style-type: none"> Protect identified basic raw material and mineral resource areas through appropriate land use designations. 	BRM's such as sand and clay are essential for affordable housing and infrastructure delivery. This action will protect BRM resources, manage land use conflicts through appropriate buffers, and ensure rehabilitation aligns with long-term land use outcomes.	Short term (1-5 years)

- Apply separation distances and interface controls to minimise land use conflicts with sensitive uses;
- Support sequential land use planning and rehabilitation aligned with future land use objectives;
- Ensure proposals for extraction include rehabilitation plans that reflect long-term planning intent.



3.4 Environment

3.4.1 Water resources

The Shire of Murray is defined by a diverse and ecologically significant network of water resources, including rivers, estuaries, wetlands, and groundwater systems. Major surface water systems such as the Murray, Serpentine and Harvey Rivers flow westward across the Shire, feeding into the Ramsar listed Peel-Harvey Estuary, an internationally recognised wetland supporting biodiversity, recreation and the economy.

A system of natural and constructed drains across the Swan Coastal Plain manages waterlogging and flooding, however also contributes to nutrient runoff and water quality concerns.

Groundwater resources in the Shire are found in both the Perth Basin and the Yilgarn South West Province, with aquifers ranging from fresh,

shallow superficial systems to deeper artesian formations such as the Leederville and Cockleshell Gully. Groundwater usage is regulated and subject to allocation limits to protect sensitive ecosystems and maintain water availability.

The Shire also contains extensive wetland systems, many of which are mapped and categorised based on their ecological condition. These wetlands, along with natural waterways, contribute to flood mitigation, water quality, biodiversity and cultural and recreational values. However, increasing pressures from urbanisation, agriculture, and climate change are threatening the quality and sustainability of these water assets, highlighting the need for integrated management and land use planning to protect their long-term health and function.

Table 14: Water resources planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Water Resources	34. Protect and restore waterway and wetland health	34.1 Shire to introduce a Special Control Areas in LPS6 to: <ul style="list-style-type: none"> Protect water resources in the Peel Harvey Coastal Plain Catchment in LPS6. Protect Conservation and Resource Enhancement category Wetlands. 	To protect the waterways within the Peel Harvey coastal plain catchment from inappropriate land use and development.	Short term (1-5 years)

34.2 Shire to prepare Wetland Protection local planning policy.	To protect Conservation and Resource Enhancement category wetlands from inappropriate land use and development.	Short term (1-5 years)
34.3 Shire to introduce provisions in LPS6 to require new development to be connected to a reticulated sewerage system or where this is not viable an acceptable alternative treatment unit with nutrient retentive capability.	To avoid conventional septic tank systems which are one of the primary and significant sources of nutrient enrichment of water resources consistent with the Government Sewerage Policy.	Short term (1-5 years)
34.4 Shire to introduce provisions in LPS6 relating to stocking rates based on Department of Primary Industry and Regional Development guidelines.	To ensure stocking on land does not adversely impact the environment or result in land degradation.	Short term (1-5 years)
34.5 Shire to review the Shire's Keeping of Livestock in Rural Residential Areas Local Planning Policy.	To ensure stocking on land does not adversely impact the environment or result in land degradation.	Short term (1-5 years)
34.6 Shire to introduce provisions in LPS6 requiring the rehabilitation of land where land has been cleared, managed or degraded in a way that causes environmental harm or adversely affects the amenity by soil erosion dust or alteration to water flows.	To enable the rehabilitation of land where it has been degraded or water flows adversely altered.	Short term (1-5 years)
34.7 Shire to prepare a new Dams Local Planning Policy to set out the circumstances where development approval is required and the considerations to be addressed.	To ensure dams are effectively designed and constructed and do not adversely impact on the environment.	Medium term (5-10 years)
34.8 Shire to review the Shire's Horticultural Development Local Planning Policy.	To ensure the policy remains effective in managing horticultural land uses.	Short term (1-5 years)

		34.9 Shire to introduce the use categories of agriculture – intensive; animal husbandry – intensive; and animal establishments in the zoning table of LPS6 with associated interpretations, with a ‘D’ discretionary permissibility in Rural zones.	Ensure rural land uses with a high risk of nutrient enrichment of waterways require development approval.	Short term (1-5 years)
		34.10 Shire to introduce provisions in LPS6 for nutrient export to be managed for agriculture – intensive, animal husbandry – intensive and animal establishments or rural pursuits that exceed recommended stocking rates.	Ensure rural land uses with a high risk of nutrient enrichment of waterways are effectively managed.	Short term (1-5 years)
35. Implement best practice urban water management for new development.		35.1 Shire to introduce provisions in LPS6 for new subdivision and development to employ best practice urban water management with a focus on total water cycle management to manage the impacts of the subdivision or development on water resources and the environment.	To reduce nutrient runoff and peak flows from new development areas to protect downstream waterways and wetlands, and groundwater.	Short term (1-5 years)
		35.2 Shire to review the Water Sensitive Urban Design Local Planning Policy.	To ensure the policy remains consistent with State policies and effective in water management practices for new development proposals.	Short term (1-5 years)
36. Protect drinking water source protection areas	Public water protection areas	36.1 Shire to introduce a Special Control Area to protect Priority Public Drinking Water Source Areas in LPS6.	To ensure protection of water source protection areas.	Short term (1-5 years)
37. Facilitate the use of alternative sources of water supply		37.1 Shire to advocate for further investment to advance water initiatives such as Managed Aquifer Recharge to meet the needs of future development and industry.	To secure sustainable water sources to meet future industry, agricultural and development needs.	Ongoing
38. To remove urban related zoning from		38.1 Shire to request the Commission rezone Lots 9, 11, 48, 300, 301 Furnissdale Road, Furnissdale from	Section 4.1.3 of Part 2 recognises there are several undeveloped areas that have been historically	Short term

areas that are unsuitable due to significant environmental constraints.

Urban to Rural under the Peel Region Scheme and to then zone these lots Environmental Conservation under LPS6.

zoned for urban purposes under the Peel Region Scheme and LPS4 that are no longer suitable for urban purposes for a range of reasons. In this case the land is affected by significant environmental constraints including regionally significant vegetation, threatened and priority flora/ecological communities, conservation category and resource enhancement category wetlands, environmentally sensitive area, coastal processes risk, river flooding, bushfire, aboriginal cultural heritage

(1-5 years)

38.2 Shire to zone the lots bound by Sibbald Street, Roe Avenue, Wilson Road and Pinjarra Road, Pinjarra Environmental Conservation under LPS6.

Section 4.1.3 of Part 2 recognises there are several undeveloped areas that have been historically zoned for urban purposes under the Peel Region Scheme and LPS4 that are no longer suitable for urban purposes for a range of reasons. In this case the land is affected by significant environmental constraints including regionally significant vegetation, threatened and priority flora/ecological communities, conservation category wetland, environmentally sensitive area, aboriginal cultural heritage and bushfire.

Short term
(1-5 years)

38.3 Shire to request the Commission to Reserve Lot 2 South Yunderup Road, South Yunderup to Regional Open Space under the Peel Region Scheme and zone this land Environmental Conservation under LPS6 until the PRS Amendment takes effect.

Section 4.1.3 of Part 2 recognises there are several undeveloped areas that have been historically zoned for urban purposes under the Peel Region Scheme and LPS4 that are no longer suitable for urban purposes for a range of reasons. In this case the land is affected by significant environmental constraints including conservation category and resource enhancement category wetlands, environmentally sensitive area, buffer to threatened and priority flora/ecological

Short term
(1-5 years)

community, regionally significant vegetation, coastal processes risk, flood prone, bushfire prone and mosquito prone. The land has already been acquired by the Commission.

38.4 Shire to request the Commission rezone Lot 519 Stock Road, Stake Hill from Urban to Rural under the Peel Region Scheme and zone the lot to Environmental Conservation under LPS6.

Section 4.1.3 of Part 2 recognises there are several undeveloped areas that have been historically zoned for urban purposes under the Peel Region Scheme and LPS4 that are no longer suitable for urban purposes for a range of reasons. In this case the land is affected by significant environmental constraints including regionally significant vegetation, environmentally sensitive area, threatened and priority flora and fauna, aboriginal cultural heritage and bushfire prone and mosquito prone.

Short term
(1-5 years)



3.4.2 Biodiversity Protection

The Shire of Murray is located within the Southwest Australia Ecoregion, which is one of only 34 global biodiversity hotspots, determined due its rich diversity of plant life and the high level of threat it faces. Prior to European settlement there were 170,111 hectares of native vegetation within the Shire. With extensive historical clearing, only around 50% or 92,087ha of this native vegetation remains.

This clearing is most noticeable on the Swan Coastal Plain portion of the Shire where around 80% of the original vegetation extent has been cleared, with the remaining remnants often small and isolated. The northern Jarrah forest to the east of the plain is largely still intact, although under increasing threat from mining. The Jarrah forest provides recreational, cultural and socio-economic benefits, with the local and regional communities placing a very high value on this incredibly unique ecosystem.

Many of the vegetation complexes found within the Shire now comprise less than 30% of their original extent, the threshold below which there is a significant fall in the diversity of plant species. A number of the vegetation complexes have also fallen below 10% of their original extent and are now regarded as endangered. There are many instances of declared rare flora, threatened ecological communities and vital habitat for endangered fauna.

With the Shire's forecast population growth and resultant development pressures, the increasing threat of climate change with reducing rainfall and water flows, together with vegetation clearing for agricultural, mining and other pursuits, there is ongoing risk of further loss of biodiversity. There is a need for effective planning mechanisms to retain and protect the remain natural areas.

Table 15: Biodiversity protection planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Biodiversity protection	39. To protect and restore biodiversity	39.1 Shire to review the Shire's Local Biodiversity Strategy and Biodiversity Protection local planning policy	To update base biodiversity information and policy framework.	Short term (1-5 years)
		39.2 Shire to include provisions in LPS6 for structure plans to demonstrate how they address the relevant specific Biodiversity Feature Targets and Precinct Protection Targets under the Local Biodiversity Strategy for the relevant structure plan area.	To apply the targets under the Local Biodiversity Strategy to structure plan areas.	Ongoing

39.3 Shire to include an Environmental Conservation zone in LPS6.	To identify areas with biodiversity or other environmental values and to protect those areas from development.	Short term (1-5 years)
39.4 Shire to include a conservation reserve designation under LPS6 and apply to reserves where the intended purpose is conservation.	To distinguish between local reserves for conservation and other uses such as recreation	Short term (1-5 years)
39.5 Shire to advocate for improved post-mining rehabilitation of the Northern Jarrah Forest	To ensure rehabilitation is undertaken to best practice standard.	Short term (1-5 years)
39.6 Shire to require street tree masterplans within any structure plan or subdivision.	To increase the tree canopy with the Shire's urban areas.	Short term (1-5 years)
39.7 Shire to include provisions in LPS6 addressing: <ul style="list-style-type: none"> • Protection, rehabilitation and restoration of vegetation, including paddock trees; • Establishment and maintenance of vegetation along drainage, property and paddock fence lines; • Management of wetlands and drainage lines; • Demonstration of nutrient targets outlined in the Peel-Harvey Water Quality Improvement Plan' • Revegetation of ecological linkages; • Stocking of land in accordance with Department of Primary Industries and Regional Development guidelines. 	To help protect biodiversity, improve water quality and support sustainable use of rural land.	Short term (1-5 years)

3.4.3 Energy use and emissions reduction

In 2020/21, the Shire of Murray produced approximately 556,000 tonnes of carbon dioxide equivalents (tCO₂e), or around 15 tCO₂e per person. Electricity (41%) and transport (38%) were the highest contributors, and are the greatest challenges for emissions reduction. As the Shire continues to grow, energy demand is expected to rise, making emissions reduction increasingly important.

The Strategy can influence this by promoting a compact, mixed-use urban form that reduces transport energy needs and by encouraging energy efficient buildings through passive design, sustainable construction materials, and renewable energy use, supporting the transition away from traditional energy sources.



Table 16: Energy use and emissions reduction planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Energy conservation	40. Reduce energy use through sustainable energy sources, urban design and design of buildings	40.1 Shire to include provisions in LPS6 to require the proponents to prepare sustainability strategies as a component of structure plans.	To require sustainability initiatives to be considered and incorporated in planning for development areas.	Short term (1-5 years)
		40.2 Shire to include interpretations, use permissibility and key provisions for alternative energy facilities and battery energy storage systems in LPS6.	To make specific provision for these land use categories in LPS6.	Short term (1-5 years)
		40.3 Shire to prepare Alternative Energy facilities and Battery Energy Storage System local planning policy	To outline how the Shire will exercise discretion when considering applications for these land use categories.	Short term (1-5 years)
		40.4 Shire to prepare environmentally sustainable buildings local planning policy.	To ensure proponents consider best practice sustainable building initiatives.	Short term (1-5 years)



3.5 Infrastructure

3.5.1 Transport Infrastructure

The Shire of Murray faces significant transport challenges due to its dispersed population with multiple townsites and settlements, low density development pattern and very limited public transport, cycling and pedestrian infrastructure. This has resulted in residents being almost entirely reliant on private vehicles for daily travel, which makes it difficult for many people, especially those without access to a car, to move around efficiently, limiting mobility options and reinforcing social, economic, and environmental disadvantages. High levels of car dependency contribute to traffic congestion, transport inequity, increased household transport costs and environmental impacts such as carbon emissions and reliance on fossil fuels.

As the population grows, key challenges will be expanding the road network and other transport infrastructure in a timely manner, while also transitioning to a more sustainable land use pattern. The Shire will need to provide an integrated network of roads, public transport and active transport infrastructure that supports viable and convenient alternative travel modes, ensuring the transport system meets the needs of future residents without locking in long term car dependency.

Table 17: Transport infrastructure planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Transport	41. Public transport provision	41.1 Shire to advocate for progressive improvements in public transport provision throughout the Shire.	To progressively improve the available public transport service.	Ongoing
	42. Regional roads	42.1 Shire to reflect the Regional Road network shown on the Local Planning Strategy Map in figure 2 in LPS6.	To identify required regional roads to enable planning of adjacent land to reflect this.	Short term (1-5 years)
		42.2 Shire to prepare plans for the transition of Pinjarra Road between the Kwinana Freeway and Pinjarra to evolve from a primary regional road under Main Roads. Western Australia control to an Integrator	This portion of Pinjarra Road has been identified in the planning framework for downgrade.	Short term (1-5 years)

Arterial Road under the Shire of Murray control. This should include plans to reduce the road to two traffic lanes within the Pinjarra town.

		42.3 Shire to advocate for funding for the progressive upgrade, downgrade and construction of the proposed regional road network.	To provide funding for the progressive works for upgrade, downgrade or construction of regional roads.	Ongoing
		42.4 Shire to undertake further traffic assessment to consider potential amendments and gaps to the regional road network.	A number of traffic issues and gaps have been identified with initial modelling for the regional Road network that require further discussion with state transport agencies to determine amendments.	Short term (1-5 years)
43. Cycling and pedestrians		43.1 Shire to prepare a local planning policy on street design to provide for increased level of walkability.	To ensure new roads and progressive improvements to the existing street network prioritise walkability.	Medium term (6-10 years)
		43.2 Shire to prepare an Integrated Sustainable Transport Plan for the Shire of Murray	To plan and coordinate all transport modes and infrastructure to improve connectivity, accessibility, and efficiency across the Shire, supporting sustainable growth and better mobility options for residents.	Medium term (6-10 years)
		43.3 Shire to undertake a path audit within existing towns to identify and prioritise improvements to the path network.	To encourage the use of active transport.	Short term (1-5 years)
		43.4 Shire to include provisions for end of trip cycling facilities for commercial developments in LPS6.	To provide easy access to cycling end of trip facilities to encourage active transport.	Short term (1-5 years)
		43.5 Shire to review the parking standards for various uses/places and include new parking standards in a new local planning policy.	To ensure a suitable extent of car parking is provided to meet contemporary needs.	Short term (1-5 years)

44. Developer Contribution Plans	44.1 Shire to include Developer Contribution Plans in LPS6 for fragmented development areas.	To provide mechanism for the equitable provision of infrastructure in areas of fragmented ownership.	Short term (1-5 years)
----------------------------------	--	--	------------------------

3.5.2 Service infrastructure

The provision of essential infrastructure is critical to supporting sustainable growth and development within the Shire of Murray. The coordinated delivery of power, water, wastewater, drainage, and gas services by both public and private agencies will be essential to ensuring land use planning aligns with servicing capacity. Future development must be strategically staged to maximise the efficient use of existing infrastructure, avoid premature or inefficient servicing, and address infrastructure backlogs such as infill sewer programs for unsewered areas and the undergrounding of above-ground power lines in older areas.

With increasing demand for reliable and cost effective services, the Strategy must also support emerging opportunities, such as renewable energy integration, managed aquifer recharge and wastewater recycling. Planning for infrastructure should incorporate sustainable design principles, mitigate environmental impacts, and ensure resilience to climate variability, securing long-term servicing capacity for the Shire's growing population and economy.

Table 18: Service infrastructure planning directions and actions

Issue/opportunity	Planning Direction	Action	Rationale	Timeframe
Service infrastructure	45. Staged provision of new service infrastructure to support growth.	45.1 Shire to advocate for the staged provision of power, water, waste, gas and telecommunications infrastructure to support areas that are not currently serviced.	To ensure new development is not constrained through the lack of service infrastructure.	Ongoing
	46. Implement infill sewer program	46.1 Shire to advocate for infill sewer program in developed areas without reticulated sewer.	To ensure environmental and public health is protected.	Ongoing
	47. Underground power	47.1 Shire to prepare a local planning policy providing for above ground power lines to be undergrounded as part of development.	To ensure a progressive upgrade to underground standard as development proceeds.	Short term (1-5 years)
	48. Telecommunications	48.1 Shire to include an interpretation of telecommunications infrastructure and designate this use as a permitted (P) use in zones where telecommunications infrastructure is supported and ensure this use is not designated as a use not permitted (X) in any other zone under LPS6	To enable the development of a comprehensive network of telecommunications infrastructure across the Shire.	Short term (1-5 years)

4. Planning Areas

4.1 Overview

This section outlines in greater detail planning directions and actions for specific planning areas. The location and extent of each planning area is identified on the Strategy Map at Figure 1 and below.

4.2 Planning Areas

4.2.1 Urban Infill Planning Areas

The Planning Framework establishes an urban infill target for the Shire of 630 dwellings by 2031, increasing to 1,080 dwellings by 2050, consistent with the directions set out in *Directions 2031 and Beyond* for more compact and sustainable growth. Pinjarra (North), and areas adjacent to the local centres in North Yunderup and South Yunderup have been identified as priority locations to accommodate this infill, in addition to the Pinjarra Secondary Activity Centre reflecting their access to existing infrastructure, walkable distance to a centre, the size of lots and age of the dwelling stock. Concentrating infill housing in these areas will support more viable centres, increase housing diversity, and strengthen the case for improved public transport. To ensure quality outcomes, development must be supported by detailed planning that responds to local character, delivers a high standard of built form and public realm, and provides the amenity needed for more walkable, connected neighbourhoods.

Table 19: Urban infill planning area planning directions and actions

Planning Area	Planning Direction	Action	Rationale	Timeframe
A	Facilitate urban infill in Pinjarra (North)	<p>Shire to undertake studies to inform zoning, coding and land use permissibility arrangements under LPS6.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Provide for a minimum of 100 infill dwellings. 2. Investigate means of reactivating the local centre. 3. Protect and enhance the established residential character and amenity. 4. Identify necessary transport, public utility and community infrastructure. 5. Identify desirable public realm enhancements to support the infill development. 	Infill development in Pinjarra North will add around 100 dwellings, diversify housing options and help support the reopening of the local centre.	Medium term (5-10 years)
B	Facilitate urban infill in North Yunderup	<p>Shire to undertake studies to inform zoning, coding and land use permissibility arrangements under LPS6.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Provide for a minimum of 20 infill dwellings. 2. Protect and enhance the established residential character and amenity. 3. Identify necessary to transport, public utility and community infrastructure. 4. Identify desirable public realm enhancements to support the infill development. 	Infill development in North Yunderup will add around 20 dwellings and diversify housing options.	Medium term (5-10 years)

C	Facilitate urban infill in South Yunderup	<p>Shire to undertake studies to inform zoning, coding and land use permissibility arrangements under LPS6.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Provide for a minimum of 50 infill dwellings. 2. Protect and enhance the established residential character and amenity. 3. Identify necessary transport, public utility and community infrastructure. 4. Identify desirable public realm enhancements to support the infill development. 	Infill development in North Yunderup will add around 50 dwellings and diversify housing options.	Medium term (5-10 years)
---	---	---	--	-----------------------------

4.2.2 Ravenswood District Centre Planning Area

The Ravenswood District Centre is identified in the Planning Framework and *SPP 4.2* as an emerging riverfront district centre, with a unique riverfront setting that provides significant placemaking and economic opportunities. Strategically located along the Mandurah–Ravenswood–Pinjarra high-priority transit corridor and major regional roads, the centre is forecast to accommodate 3,200m² of retail floorspace by 2038, growing to 11,900m² by 2051, alongside 11,500m² of non-retail uses by 2038 and 22,137m² by 2051.

Planning will establish Ravenswood as a compact, mixed-use and walkable centre, integrating medium to higher density housing to support diversity, vibrancy and viability. The centre will provide a mix of retail, commercial and community functions within a high-quality public realm and connected pedestrian and cycling network. Land is also protected for the Ravenswood Regional Sporting Complex and a co-located health and education precinct, enabling provision for a hospital and TAFE facility to meet the Peel Region's long-term needs.

Table 20: Ravenswood district activity centre planning area planning directions and actions

Planning Area	Planning Direction	Action	Rationale	Timeframe
D	Undertake planning for the Ravenswood District Activity Centre as a riverfront centre with a compact, mixed-use and walkable urban form, integrating medium to higher density residential development with a mix of retail, commercial and community uses, while protecting land for regional recreation and the longer-term provision of a hospital and TAFE. .	<p>Shire to prepare a precinct structure plan for the Ravenswood District Activity Centre which aligns with SPP 4.2 – Activity Centres and SPP 7.2 - Precinct Design.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Structure the activity centre to maximise the opportunity afforded by its riverfront setting. 2. Investigate options for reducing the divisive impact of existing and proposed regional roads within the activity centre. 3. Ensuring a compact, mixed use, walkable, activity centre. 4. Providing high-quality public realm with compact public spaces, active frontages and shaded streetscapes. 5. Protect and integrate land for the Ravenswood Regional Sporting Complex and a co-located health and education precinct. 6. Water management addressing flood risk, nutrient control and water sensitive design. 7. Visual impact assessment and built form character guidance. 	The Planning Framework provides for a district activity centre in this location. Ravenswood's strategic location on the Mandurah-Ravenswood–Pinjarra transit corridor, combined with its unique riverfront setting, makes it an ideal location for a compact, mixed-use district centre. Section 4.3.4 of Part 2 outlines the rationale for the protecting land for the health and education precinct within the centre.	Short term (1–5 years)

4.2.3 Urban growth Planning Areas

A number of new urban growth areas have been identified to ensure a sufficient supply of urban land to meet forecast population growth. These areas have been selected as logical, consolidated extensions of existing towns and settlements, reinforcing the consolidation objectives of this Strategy and supporting the Pinjarra Road transit corridor as a key focus for compact and connected urban development.

Each Planning Area will require further detailed planning to ensure orderly, coordinated and sustainable outcomes. Key considerations are identified in Table 21; however, these are not intended to be comprehensive and apply in addition to the full range of matters normally addressed through rezoning and/or structure planning processes.

Table 21: Urban growth planning area planning directions and actions

Planning Area	Planning Direction	Action	Rationale	Timeframe
E	Planning for the North Yunderup Future urban Planning Area	<p>Shire to prepare District Structure Plan for entirety of Planning Area.</p> <p>Landowners to prepare local structure plans for each portion of the Planning Area as identified on the District Structure Plan.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Development intensity given the location within the Mandurah-Ravenswood-Pinjarra High Priority Transit Corridor. 	Section 4.1 of Part 2 recognises that there is need to increase the extent of residential land to accommodate forecast future population.	Short term (1–5 years)

2. Intersection design and spacing with Pinjarra Road and Pinjarra Road widening.
3. Road and pedestrian links to the established Norh Yunderup area.
4. Upgrade and widening of existing roads.
5. Public street interface with Wilgie Creek reserve and key wetland open spaces.
6. Provision of a local activity centre.
7. Protection of significant environmental values.
8. Water management including protection wetlands and watercourses; nutrient, drainage and flood management.
9. Bushfire risk management.
10. Servicing and infrastructure provision.
11. Community infrastructure provision
12. Equitable cost sharing of infrastructure and public open space.
13. Visual landscape impact and management.

F	Planning for the Furnissdale (West) Urban Expansion Planning Area	<p>Landowners to prepare amendment request to WAPC to rezone the Ravenswood (South) portion of the Planning Area to Urban under the PRS and concurrently to Residential Development under the LPS.</p> <p>Landowners to prepare a local structure plan prior to subdivision or development.</p> <p>Key considerations for future planning include:</p>	Section 4.1 of Part 2 recognises that there is need to increase the extent of residential land to accommodate forecast future population.	Long term (10-15 years)
---	---	--	---	-------------------------

1. Development intensity given the location within the Mandurah-Ravenswood-Pinjarra High Priority Transit Corridor.
2. Upgrade and widening of existing roads.
3. Protection of significant environmental values.
4. Water management, including protection wetlands and watercourses; nutrient, drainage and flood management.
5. Bushfire risk management.
6. Servicing and infrastructure provision.
7. Community infrastructure provision.
8. Equitable cost sharing of infrastructure and public open space.
9. Visual landscape impact and management.
10. Interface with adjoining Rural Residential land.

G	<p>Planning for the Ravenswood (South)/Pinjarra (West) Urban/Urban Expansion Planning Area</p>	<p>Landowners to prepare amendment request to WAPC to rezone the Ravenswood (South) portion of the Planning Area to Urban under the PRS and concurrently to Residential Development under the LPS.</p> <p>Landowners to prepare a local structure plan prior to subdivision or development.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Development intensity given the location within the Mandurah-Ravenswood-Pinjarra High Priority Transit Corridor. 2. Intersection design and spacing with Pinjarra Road and Pinjarra Road widening. 	<p>Section 4.1 of Part 2 recognises that there is need to increase the extent of residential land to accommodate forecast future population.</p>	<p>Short term (1–5 years)</p>
---	--	---	--	-------------------------------

3. Road and pedestrian links to the adjacent urban areas.
4. Provision of a local and neighbourhood activity centre.
5. Protection of significant environmental values.
6. Water management including protection wetlands and watercourses; nutrient, drainage and flood management.
7. Public street interface with river foreshore area.
8. Bushfire risk management.
9. Servicing and infrastructure provision.
10. High voltage powerline easements.
11. Community infrastructure provision.
12. Visual landscape impact and management.

H	Planning for the Ravenswood (North) Urban Investigation Planning Area	Landowner to undertake further planning sufficient to support the rezoning of land within the Planning Area.	To provide for further planning to support rezoning of the Urban Investigation land in Ravenswood North to ensure it can deliver a full District Activity Centre and primary school residential catchment.	Medium term (5-10 years)
		Key considerations for future planning include:		
		<ol style="list-style-type: none"> 1. Size of the Planning Area which should align to the District Activity Centre boundary and a single primary school residential catchment. 2. Development intensity given the location within the Mandurah-Ravenswood-Pinjarra High Priority Transit Corridor. 3. The alignment and/or widening of Old Mandurah Road and the alignment of a new north south regional road. 		

4. Intersection design and spacing with Old Mandurah Road and the new north - south regional road.
5. Protection of significant environmental values.
6. Water management, including protection wetlands and watercourses; nutrient, drainage and flood management.
7. Servicing and infrastructure provision.
8. Community infrastructure provision.
9. Provision for a longer-term hospital and vocational education site within the activity centre.
10. Visual landscape impact and management.

I	Planning for the South Yunderup Urban Investigation Planning Area	Landowners to undertake further planning through preparation of district structure plans to support amendments to the Peel Region Scheme and the LPS to zone land identified on the Strategy map as 'Urban investigation' in South Yunderup.	Section 4.1 of Part 2 recognises that there is need to increase the extent of residential land to accommodate forecast future population.	Short term (1–5 years)
		Landowners to support local structure plan for the entirety of the Planning Area.		
		Key considerations for future planning include:		
		<ol style="list-style-type: none"> 1. Define the extent of the Planning Area based on a size sufficient to support one or more self-contained neighbourhoods, taking into account the extent of existing adjacent zoned land. 2. Ensure the Planning Area is supported by a permeable road network, providing connections in different directions, with adequate capacity to 		

integrate safely and efficiently with the broader regional road system and adjoining settlements.

3. Protection of significant environmental values.
4. Water management, including protection wetlands; nutrient, drainage and flood management.
5. Coastal inundation risk.
6. Bushfire risk.
7. Mosquito risk.
8. Forrest Highway road noise management.
9. Servicing and infrastructure provision.
10. Community infrastructure provision.
11. Equitable cost sharing of infrastructure and public open space.
12. Visual landscape impact and management.
13. Public street interface with regional open space and rural land.

4.2.4 Coolup South Equine Living Planning Area

The Coolup Equine Living Planning Area has been identified to support the Peel Region's position as a significant equine destination, as set out in the Peel Regional Investment Blueprint and the Peel Equine Strategy (2017). Located south of the Coolup townsite and in close proximity to the Murray Regional Equine Centre (MREC), the area makes provision for rural small holdings scale lots with an equine focus, that directly complements regional equine infrastructure.

The Planning Area will provide for lots in the 4–10 hectare range, with a minimum lot size of 4 hectares to ensure sustainable stocking rates

(approximately 2 horses per lot on unirrigated paddocks). Subdivision design must consider the area's poor nutrient retaining soils, seasonally high groundwater levels and watercourses, ensuring development responds to land capability and integrates best practice nutrient and water management.

Future development will require a Local Structure Plan supported by demand analysis, staging, environmental safeguards and equine management measures, to ensure the precinct develops in an orderly, sustainable manner that enhances both the rural character of Coolup.

Table 22: Coolup south equine living planning area planning directions and actions

Planning Area	Planning Direction	Action	Rationale	Timeframe
J	Planning for the development of an Equine Living area.	<p>Landowners to prepare amendment request to the Shire to rezone the overall Planning Area to Special Use – Equine Living under LPS6.</p> <p>Landowners to prepare a local structure plan prior to subdivision or development.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Land use to be restricted to the keeping of horses and associated activities including stabling, agistment, training and residential. 2. Given land capability a maximum lot yield of 45 lots, based on an average lot size of 5.5 hectares and lots ranging from 4 to 10 hectares, 	<p>The Coolup Equine Living Planning Area provides for an equine living opportunity on larger Rural Smallholding sized lots to complement investment in the Murray Regional Equine Centre and Pinjarra pacing and Racing facilities. It will establish lots in the 4–10 ha range to provide demand for horse-capable lifestyle blocks and enhance the Shire's role in realising the Shire's aim as a significant equine destination.</p>	<p>Medium term (5-10 years)</p>

depending on site constraints, land capability and intended stocking rates.

3. Stocking rates to be demonstrated through land capability assessments, recognising seasonal wet soils and limiting grazing areas to prevent environmental degradation.
4. Environmental management including protection of local natural areas, wetlands and watercourses; nutrient, drainage and effluent management to safeguard the Peel-Harvey catchment.
5. Revegetation and landscaping measures to maintain and enhance the rural landscape character.

4.2.5 Dwellingup Urban Expansion Planning Area

The WAPC approved a structure plan for Dwellingup in 2012, identifying urban and rural residential expansion areas surrounding the town. Subsequent community-led planning through the *Dwellingup Futures Roadmap* reinforced the critical need for the town to grow, highlighting expansion as a key element of a diversified economy scenario that supports tourism, local employment and service provision.

Dwellingup's physical setting presents substantial constraints, particularly the surrounding State Forest and high bushfire risk. In response, the Shire has prepared a revised draft Dwellingup Precinct Structure Plan demonstrating that expansion can occur in an orderly and sustainable manner. As part of this process, a comprehensive bushfire risk assessment was undertaken, showing that expansion, when directed to the periphery of the existing urban area, can be more bushfire-resilient than the previously approved largely rural residential pattern. This revised approach consolidates growth closer to the town centre,

reduces interface with unmanaged forest, and allows for a more defensible settlement edge.

The town in its current form remains vulnerable to bushfire risk, especially with legacy development predating modern bushfire standards. Expansion provides an opportunity to address these vulnerabilities through a range of means including strategic firebreaks, street interfaces to the town edge, bushfire resilient buildings, provision of a suitable destination and fuel management of open spaces.

The Dwellingup Urban Investigation Planning Area will enable further detailed planning to support the required minimum of 242 new dwellings as a well-structured expansion of the town, helping to strengthen its economic base, sustain essential services and improve community resilience in the face of bushfire risk.

Table 23: Dwellingup urban investigation planning area planning directions and actions

Planning Area	Planning Direction	Action	Rationale	Timeframe
K	Plan for the expansion of the Dwellingup town to accommodate at least 242 new dwellings to strengthen the local economy, sustain essential services and improve bushfire resilience, while retaining the town's unique character and environmental values.	<p>WAPC to consider rezoning sufficient land for at least 242 dwellings to the Urban zone under the Peel Region Scheme within 800m of the town centre.</p> <p>Shire to zone this same land Residential Development under LPS6.</p> <p>Shire to prepare a structure plan for Residential Development zoned land.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Apply best-practice bushfire planning that balances safety with social and economic growth objectives and reduces risk to the established town. 2. Protect Dwellingup's forested character by retaining existing trees wherever possible. 3. Address visual impact, built form, and landscape design in all new development. 4. Promote urban structure and lot sizes that integrate with and are compatible with the character of the established town. 5. Restrict short-term rental accommodation in new growth areas to maintain long-term residential stability and community character. 	Expansion of Dwellingup is essential to arrest the decline of its permanent population, retain its primary school, house workers, and support its growing tourism economy. The town is highly constrained by surrounding State Forest and bushfire risk, but development can be undertaken in a manner that helps to manage this risk, create a more defensible settlement, and provide the infrastructure, housing, and economic diversity needed for a resilient future.	Short term (1-5 years)

4.2.6 North Dandalup Planning Investigation Planning Area

North Dandalup is a small rural town experiencing gradual growth, particularly in rural residential areas on its western periphery. The town also contains a substantial area of urban-zoned land in the southwest, which has remained largely undeveloped for many years due in part to high servicing costs and infrastructure constraints. The town faces additional challenges, including the absence of an established town centre and the location of key community amenities on the opposite side of the South Western Highway separated from

the established residential area and undeveloped urban zoned land, which limits accessibility and connectivity.

The planning area is intended to support investigations into whether a revised planning framework for a broader area surrounding North Dandalup can help address these issues. These investigations will explore opportunities to better integrate residential development, improve the town structure, strengthen its town centre and unlock development opportunities. The outcomes will inform future changes to the planning framework.

Table 24: North Dandalup planning investigation planning area planning directions and actions

Planning Area	Planning Direction	Action	Rationale	Timeframe
L	Develop a planning framework for North Dandalup that supports a well-structured rural town, strengthens the town centre, improves connectivity across the South Western Highway, and enables sustainable growth by addressing servicing and infrastructure constraints.	<p>Shire, in conjunction with key landowners to undertake planning investigations to identify the preferred form and extent of growth for North Dandalup, addressing key issues and leveraging available opportunities.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Facilitate a well-structured rural town with a central, coherent and strengthened town centre. 2. Improve connectivity and reduce fragmentation caused by South Western Highway. 3. Investigate means of unlocking development opportunities constrained by servicing costs and infrastructure limitations. 	<p>North Dandalup faces several challenges that limit its growth and role as a small rural town. The South Western Highway divides the town, reducing connectivity between residential areas and community amenities. Urban zoned land in the southwest of the town remains undeveloped due to high infrastructure costs, and the town lacks a defined centre. Opportunities exist in contiguous landholdings, the expanding research facility, proposed student accommodation and tourism initiatives that may assist to catalyse growth. Planning investigations will provide the evidence base to address these constraints and guide the sustainable growth and development of a well-structured town.</p>	<p>Short to medium term (1-10 years)</p>

4. Ensuring adequate servicing which may include exploring innovative or off-grid solutions.
5. Protecting and enhancing the rural character, environmental features and the natural landscape setting.

4.2.7 Mandurah – Ravenswood – Pinjarra High Priority Transit Corridor Planning Area

This High Priority Transit Corridor is identified in the Planning Framework as the key public transport link between Mandurah and Pinjarra, integrating with passenger rail and local bus networks, activity centres and urban catchments along its route. Whilst the form has not yet been determined it is intended to feature high frequency service facilitated through the use of traffic signalling priority, queue jumps at traffic lights or dedicated lanes.

Coordinated land use and transport planning will be essential to support the corridor's viability and efficiency. A transit-oriented development approach,

which concentrates higher intensity commercial, mixed use, community and residential development close to transit stops will help shift travel behaviour towards public transport and reduce reliance on private vehicles. This includes aligning activity centres and employment areas along the route, designing compact, walkable neighbourhoods within walking distance of the stops, and ensuring integration with local bus services, cycling networks, and pedestrian infrastructure.

Table 25: Mandurah – Ravenswood – Pinjarra High Priority Transit Corridor Planning Area planning directions and actions

Planning Area	Planning Direction	Action	Rationale	Timeframe
M	Coordinate land use and transport planning to enable a transit-oriented corridor between Pinjarra and Mandurah that supports higher-density, mixed-use and activity centres integrated with high-frequency public transport.	<p>Shire to collaborate with the Public Transport Authority, Department of Transport and Main Roads to undertake detailed investigations into the establishment and delivery of the Mandurah-Ravenswood-Pinjarra High Priority Transit Corridor.</p> <p>Shire to prepare a Precinct Structure Plan for the corridor that coordinates with local structure planning.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Applying transit-oriented development principles. 2. Aligning activity centres, housing and services along the corridor. 3. Ensuring walkable, compact neighbourhoods with safe pedestrian and cycling connections. 	<p>The corridor is the backbone of the Shire's future public transport network, providing an opportunity to concentrate growth in accessible, well-serviced locations.</p> <p>Integrating land use and transport will support housing choice, reduce car dependence and enhance access to employment and services. Coordinated planning is needed to protect the</p>	<p>Short term (1-5 years)</p>

4. Integrating local bus services for seamless access to surrounding areas.
5. Protecting the corridor function with public transport priority measures.
6. Providing high-quality public realm, compact public spaces, active frontages and shaded streetscapes.

corridor's function, maximise development yield and create vibrant, walkable neighbourhoods that encourage public transport use.

4.2.8 Keralup (East) Employment Planning Area

This Planning Area comprises 1,600 ha of a larger 4,000 ha State-owned landholding extending into the City of Rockingham. It is located north of the Nambeelup Industrial Area and within the Peel Food Zone and identified in the Planning Framework for further investigation of alternative non-urban land uses. Its strategic location offers convenient connections to regional transport corridors, separation from sensitive land uses and potential synergies with the Nambeelup Industrial Area, Transform Peel initiative, including the Peel Integrated Water Initiative.

The site's significant environmental values, including extensive wetlands, native vegetation, low-lying topography, bushfire risk and proximity to the Serpentine River wetlands, make it unsuitable for urban development or traditional in-ground agriculture. However, it is well suited to larger-scale, low-intensity and largely self-sufficient uses that align with the rural and environmental context, are incompatible with conventional urban or industrial

locations, require operational buffers, and can operate with limited or entirely on-site servicing.

Preferred uses include agri-industry, renewable energy generation and storage, circular economy enterprises and closed-loop agriculture.

Development WA proposes long-term leases over large parcels, which will need to be progressed in an orderly manner, supported by detailed structure planning.

Table 26: Keralup (east) employment planning area planning directions and actions

Planning Area	Planning Direction	Action	Rationale	Timeframe
N	Facilitate large scale, low-intensity, self-sufficient employment uses that are compatible with the site's rural and environmental context, complement nearby industrial and agri-food activities, and contribute to long-term regional economic diversification.	<p>Shire to zone the land Special Use in LPS6 and define objectives, land use permissibility and provisions tailored to the planning direction.</p> <p>Landowners to prepare a structure plan for the overall planning area.</p> <p>Developers to prepare a local development plan for individual lease areas to provide more detailed guidance for development applications, including guidance on built form, servicing, traffic circulation, local water, environmental and visual impact management.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Confirming the range of permissible uses. 1. Identification and protection of environmental assets including wetlands, vegetation, waterways and biodiversity values. 2. Provision for servicing including water, wastewater, power and telecommunications infrastructure. 3. Road network planning, including connection to the regional road network, traffic circulation, heavy vehicle access and traffic impacts. 4. Bushfire management including secondary access. 5. Water Management addressing flood risk, nutrient and pollution control and water sensitive design. 6. Visual impact assessment. 7. Identification and protection of cultural heritage sites. 	This Planning Area presents an opportunity to accommodate, large-scale, low-intensity employment uses that are unsuited to conventional urban or industrial areas due to their scale, buffer requirements or servicing needs. Its location within the Peel Food Zone, adjacency to Nambeelup Industrial Area, and regional transport links provide a strong economic foundation, while its significant environmental values require a careful approach to land use and site planning. Development must be self-sufficient in servicing, avoid adverse impacts, and be fully compatible with the area's rural and environmental context.	Short term (1-5 years)

4.2.9 Point Grey Tourism Planning Area

Point Grey Planning Area occupies a prominent peninsula location on the eastern shore of the Peel-Harvey Estuary, characterised by expansive water views, diverse foreshore habitats and a sense of remoteness that distinguishes it from other parts of the Shire. Historically the area has been identified for urban development, although has remained undeveloped and the originally planned marina is no longer proceeding. The site also site faces significant constraints including high bushfire risk, environmental sensitivities and the need for major servicing and road infrastructure. Establishing a new urban settlement in such an isolated location would involve high capital and renewal costs for road, utilities and community facilities, and would conflict with the

consolidated growth directions set out in the both the Planning Framework and this Strategy.

The area's natural values, expansive estuary frontage and landscape setting present an opportunity to reposition the vision from an urban development to a low-impact, eco- and nature-based tourism destination. This would allow Point Grey to contribute to the Peel Region's tourism offering while protecting environmental assets, respecting its rural context, and ensuring staged, self-sufficient development that avoids the long-term liabilities of an isolated urban settlement.

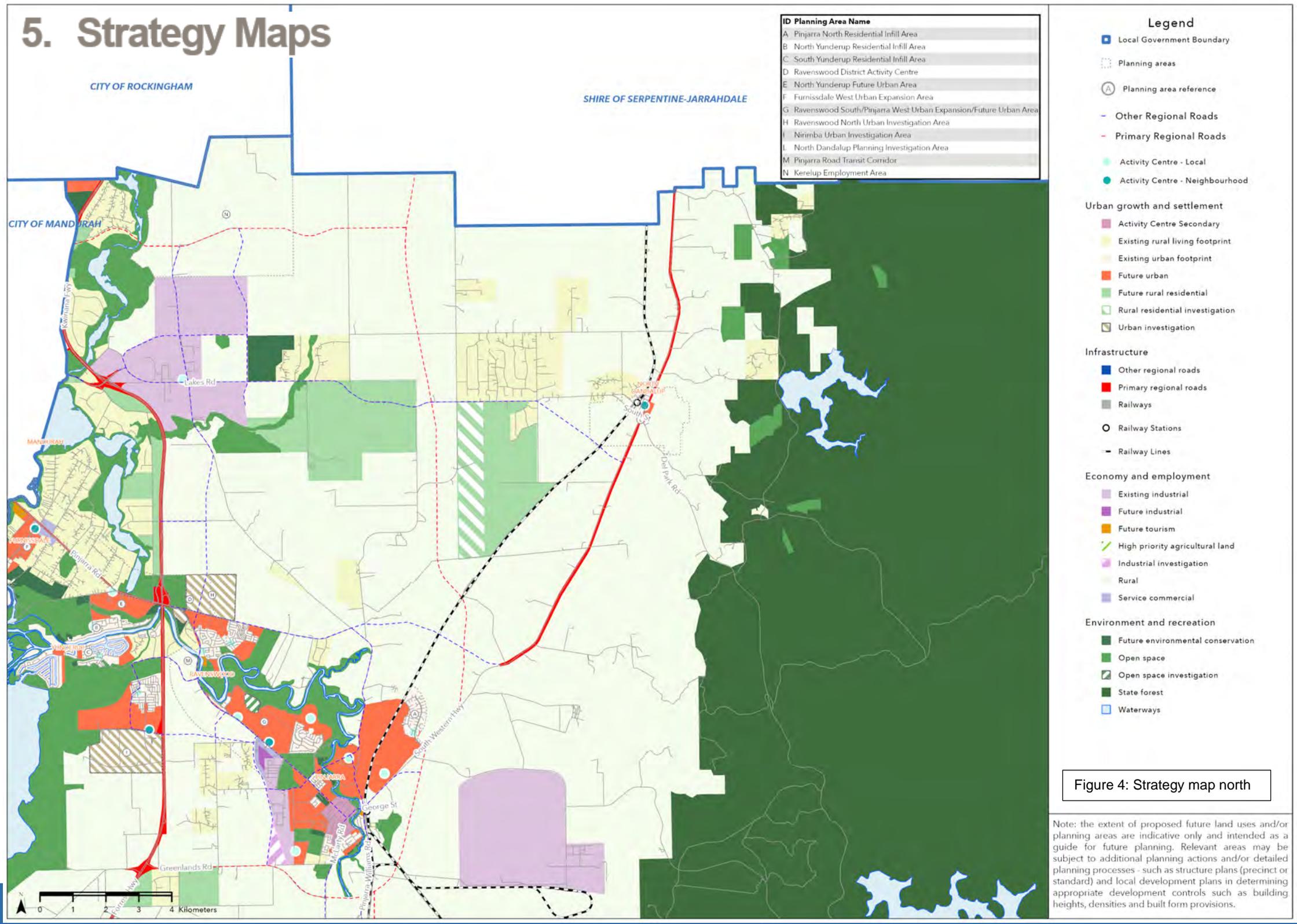
Table 27: Point Grey tourism planning area planning directions and actions

Planning Area	Planning Direction	Action	Rationale	Timeframe
O	Redirect planning for the Point Grey Planning Area from a residential settlement to an eco- and nature-based tourism area that celebrates Point Grey's environmental and landscape values, supports the regional tourism economy and ensures development is compatible with its rural context.	<p>WAPC to consider rezoning the land from Urban to Rural zone under the Peel Region Scheme.</p> <p>Shire to zone the land Tourism under LPS6 and define objectives, land use permissibility and provisions tailored to the planning direction.</p> <p>Landowners to prepare a structure plan for the overall planning area.</p> <p>Key considerations for future planning include:</p> <ol style="list-style-type: none"> 1. Confirming the range of permissible uses. 2. Confirming a suitable development footprint. 	<p>The change in direction for Point Grey reflects the reality that the area has remained undeveloped since its urban zoning, with the originally planned marina no longer proceeding and substantial constraints making residential settlement unsuitable.</p> <p>The isolated location, high bushfire risk, and significant costs of providing and maintaining infrastructure and community facilities would create long-term financial and service delivery challenges. Shifting to an eco- and nature-based tourism focus aligns with State and local objectives for urban consolidation, protects the area's environmental and</p>	<p>Short - Medium term (1-10 years)</p>

3. Identification and protection of environmental assets.
4. Provision for servicing, including off grid solutions.
5. Evaluation of road upgrade needs.
6. Bushfire management, including emergency evacuation.
7. Water management addressing flood risk, nutrient control and water sensitive design.
8. Visual impact assessment, built form and landscape guidance.
9. Identification and protection of cultural heritage sites.
10. Coastal hazard impacts and management

landscape qualities, and offers a sustainable pathway to activate the site in a manner that supports the Peel Region's tourism economy without the liabilities of a new, isolated residential settlement.

5. Strategy Maps



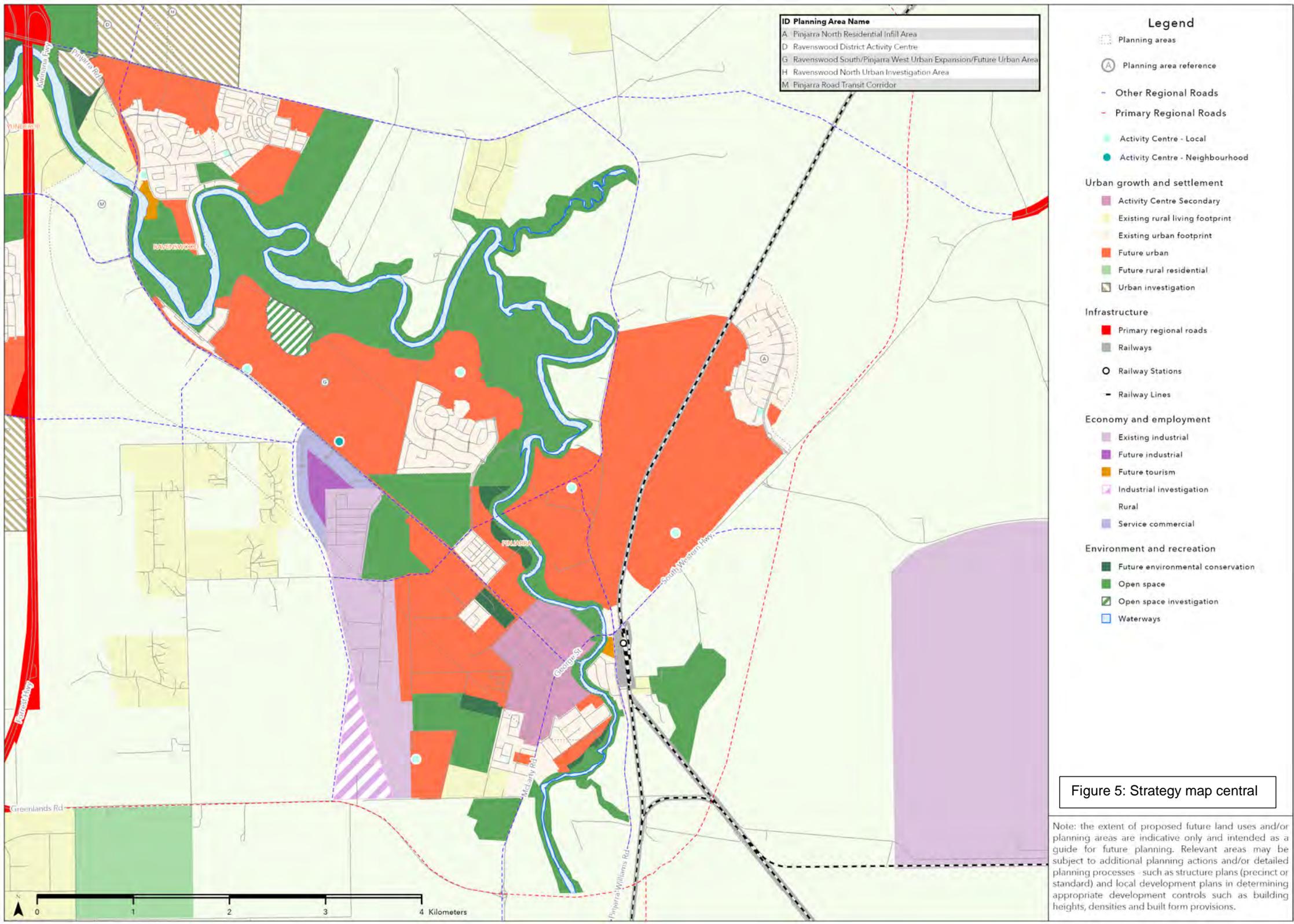
ID	Planning Area Name
A	Pinjarra North Residential Infill Area
B	North Yunderup Residential Infill Area
C	South Yunderup Residential Infill Area
D	Ravenswood District Activity Centre
E	North Yunderup Future Urban Area
F	Furnissdale West Urban Expansion Area
G	Ravenswood South/Pinjarra West Urban Expansion/Future Urban Area
H	Ravenswood North Urban Investigation Area
I	Nirimba Urban Investigation Area
L	North Dandalup Planning Investigation Area
M	Pinjarra Road Transit Corridor
N	Kerelup Employment Area

- ### Legend
- Local Government Boundary
 - Planning areas
 - Planning area reference
 - Other Regional Roads
 - Primary Regional Roads
 - Activity Centre - Local
 - Activity Centre - Neighbourhood
- ### Urban growth and settlement
- Activity Centre Secondary
 - Existing rural living footprint
 - Existing urban footprint
 - Future urban
 - Future rural residential
 - Rural residential investigation
 - Urban investigation
- ### Infrastructure
- Other regional roads
 - Primary regional roads
 - Railways
 - Railway Stations
 - Railway Lines
- ### Economy and employment
- Existing industrial
 - Future industrial
 - Future tourism
 - High priority agricultural land
 - Industrial investigation
 - Rural
 - Service commercial
- ### Environment and recreation
- Future environmental conservation
 - Open space
 - Open space investigation
 - State forest
 - Waterways

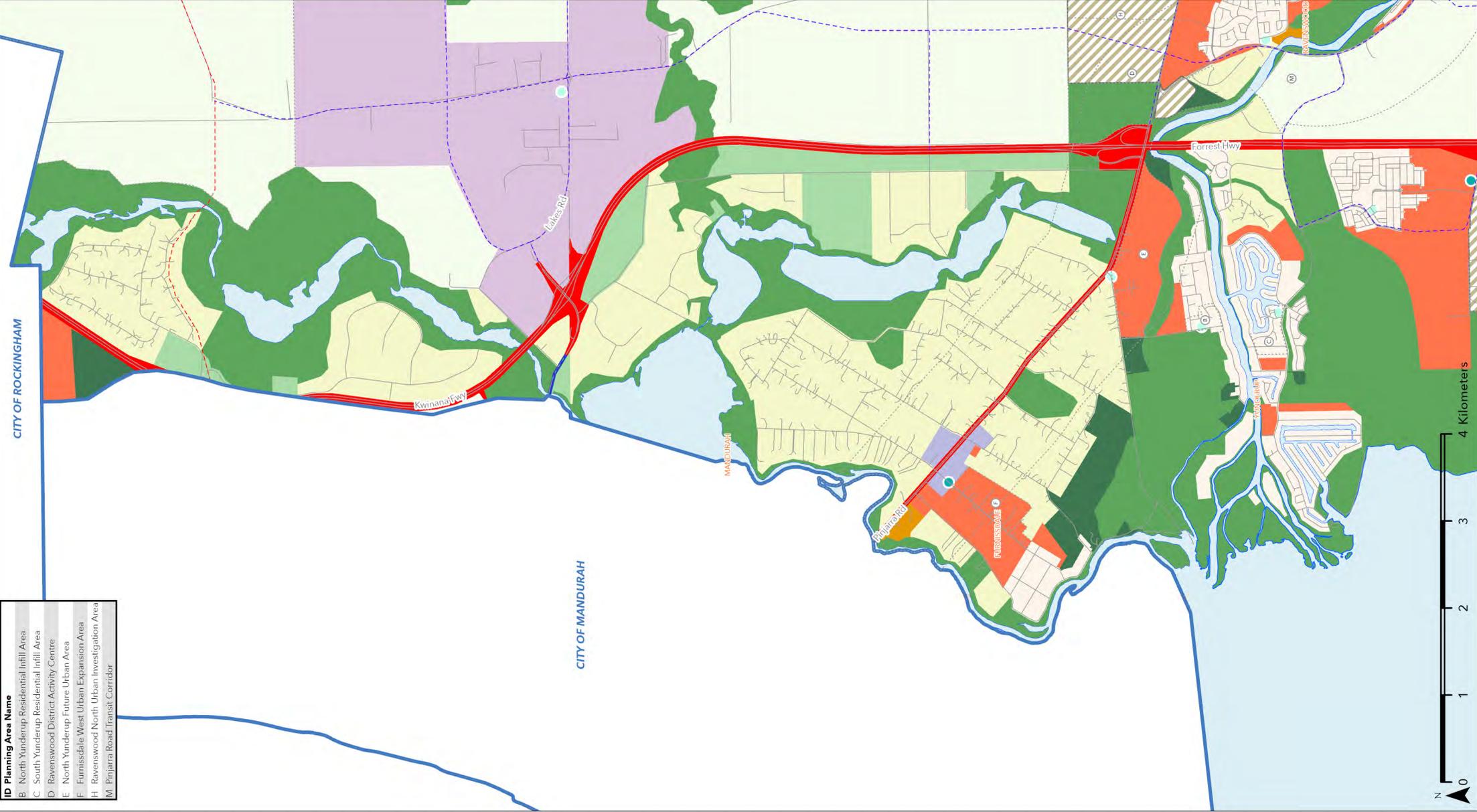
Figure 4: Strategy map north

Note: the extent of proposed future land uses and/or planning areas are indicative only and intended as a guide for future planning. Relevant areas may be subject to additional planning actions and/or detailed planning processes - such as structure plans (precinct or standard) and local development plans in determining appropriate development controls such as building heights, densities and built form provisions.





ID	Planning Area Name
B	North Yunderup Residential Infill Area
C	South Yunderup Residential Infill Area
D	Ravenswood District Activity Centre
E	North Yunderup Future Urban Area
F	Furnissdale West Urban Expansion Area
H	Ravenswood North Urban Investigation Area
M	Pinjarra Road Transit Corridor



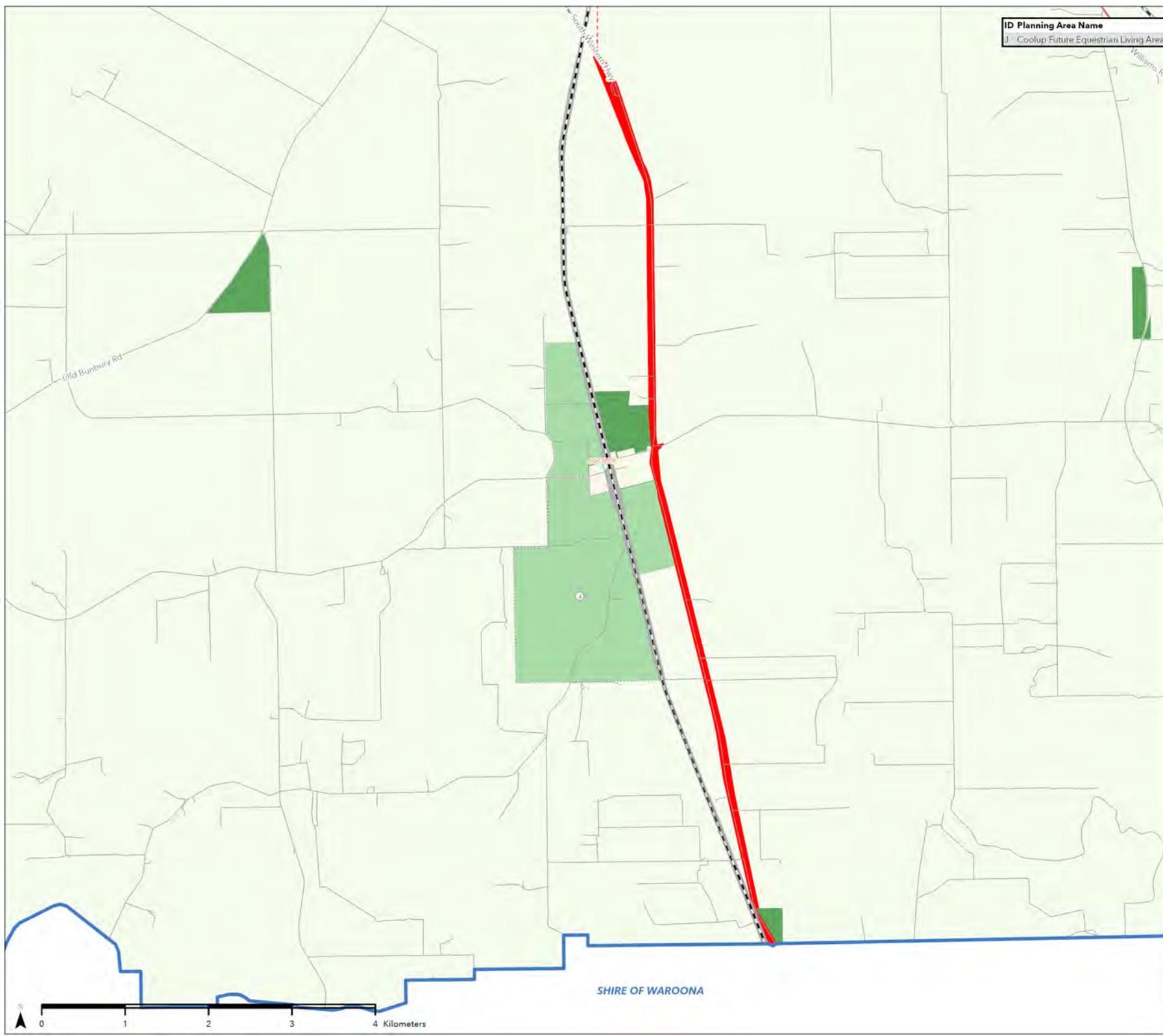
Legend

- Local Government Boundary
 - Planning areas
 - Planning area reference
 - - - Other Regional Roads
 - - - Primary Regional Roads
 - Activity Centre - Local
 - Activity Centre - Neighbourhood
- ### Urban growth and settlement
- Existing rural living footprint
 - Existing urban footprint
 - Future urban
 - Future rural residential
 - Urban investigation
- ### Infrastructure
- Other regional roads
 - Primary regional roads
- ### Economy and employment
- Existing industrial
 - Future tourism
 - Rural
 - Service commercial
- ### Environment and recreation
- Future environmental conservation
 - Open space
 - Waterways

Figure 6: Strategy map west

Note: the extent of proposed future land uses and/or planning areas are indicative only and intended as a guide for future planning. Relevant areas may be subject to additional planning actions and/or detailed planning processes - such as structure plans (precinct or standard) and local development plans in determining appropriate development controls such as building heights, densities and built form provisions.





ID Planning Area Name
Coolup Future Equestrian Living Area

Legend

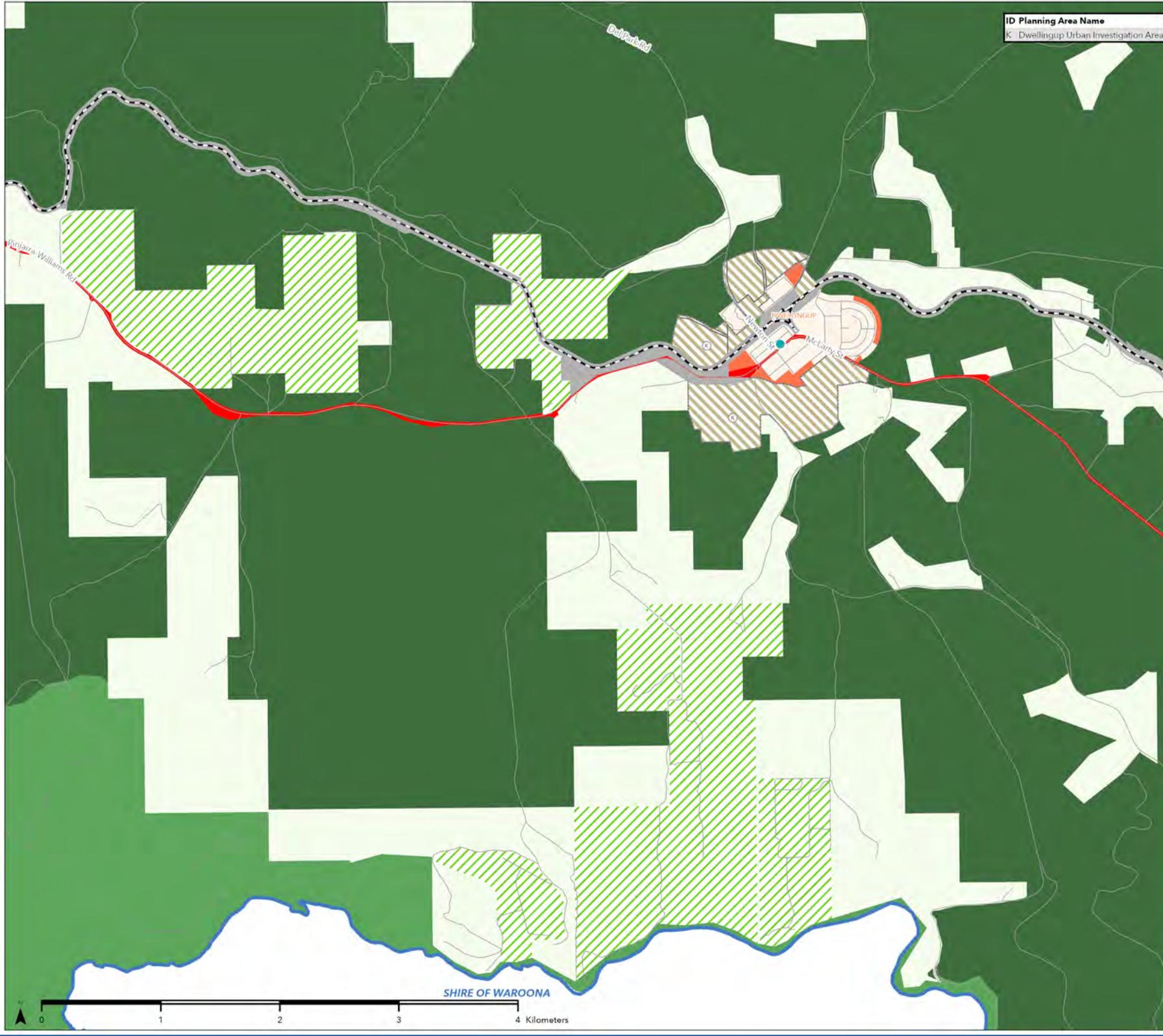
- Local Government Boundary
- Planning areas
- A Planning area reference
- Infrastructure**
 - Railway Lines
 - Primary regional roads
 - Railways
 - Activity Centre - Local
- Urban growth and settlement**
 - Existing urban footprint
 - Future rural residential
- Economy and employment**
 - Rural
- Environment and recreation**
 - Open space

Figure 7: Strategy map south

Note: the extent of proposed future land uses and/or planning areas are indicative only and intended as a guide for future planning. Relevant areas may be subject to additional planning actions and/or detailed planning processes - such as structure plans (precinct or standard) and local development plans in determining appropriate development controls such as building heights, densities and built form provisions.

SHIRE OF WAROONA





ID Planning Area Name
 K Dwellingup Urban Investigation Area

Legend

- Local Government Boundary
- Planning areas
- Planning area reference

- Infrastructure**
- Activity Centre - Neighbourhood

- Urban growth and settlement**
- Existing urban footprint
- Future urban
- Urban investigation

- Infrastructure**
- Primary regional roads
- Railways
- Railway Lines

- Economy and employment**
- High priority agricultural land
- Rural

- Environment and recreation**
- Open space
- State forest

Figure 8: Strategy map east

Note: the extent of proposed future land uses and/or planning areas are indicative only and intended as a guide for future planning. Relevant areas may be subject to additional planning actions and/or detailed planning processes - such as structure plans (precinct or standard) and local development plans in determining appropriate development controls such as building heights, densities and built form provisions.

6 Planning Area Maps

Figure 9: Pinjarra (North) Urban Infill Planning Area A



Figure 10: North Yunderup Urban Infill Planning Area B



Figure 11: South Yunderup Urban Infill Planning Area C

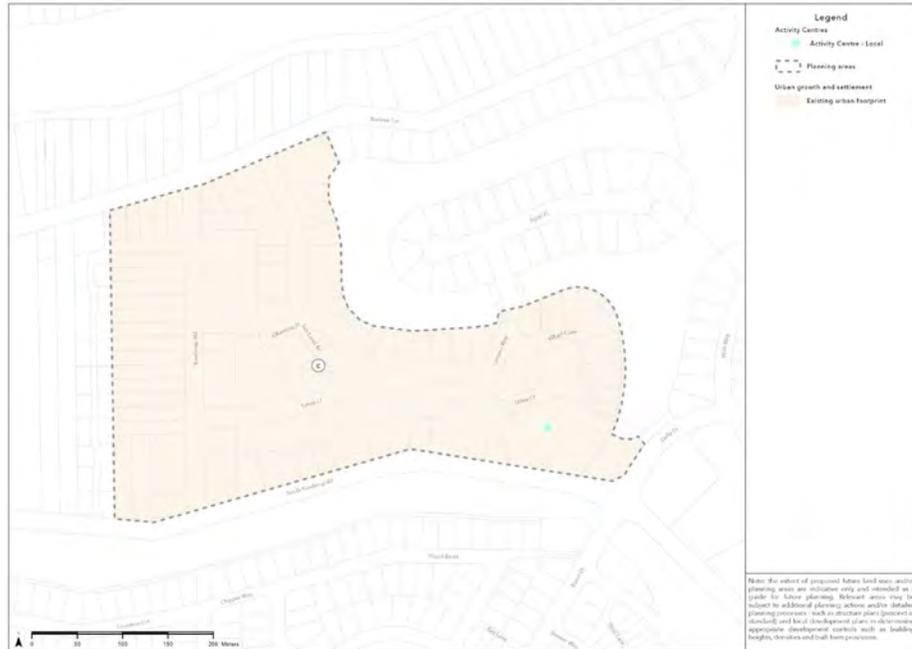


Figure 12: Ravenswood District Activity Centre Planning Area D

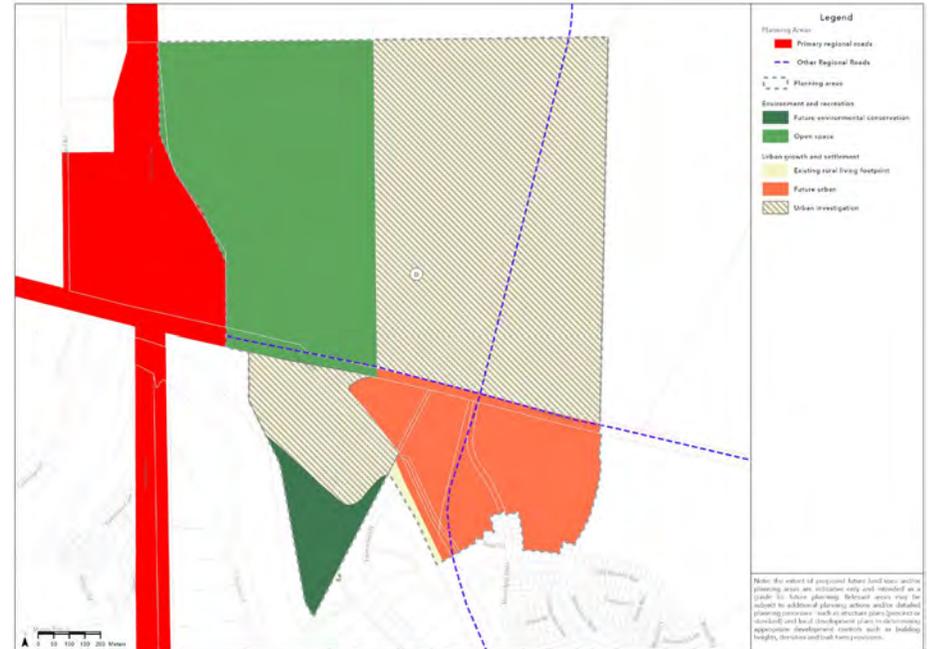


Figure 13: North Yunderup Urban Expansion Planning Area E



Figure 14: Furnissdale (West) Urban Expansion Planning Area F



Figure 15: Ravenswood (South)/Pinjarra (West) Urban Expansion/Future Urban Planning Area G



Figure 16: Ravenswood (North) Urban Investigation Planning Area H

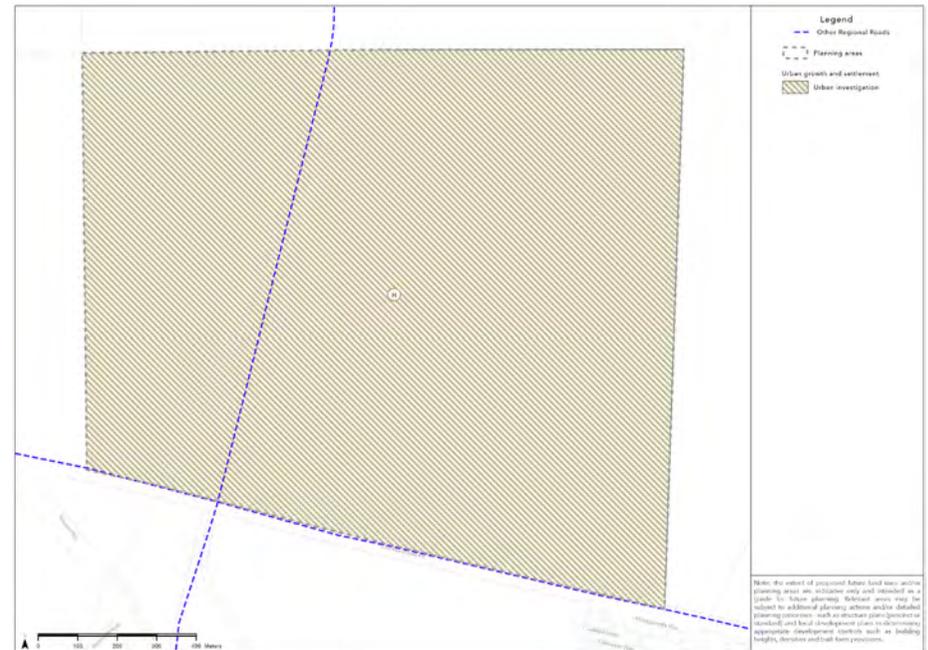


Figure 17: South Yunderup Urban Investigation Planning Area I

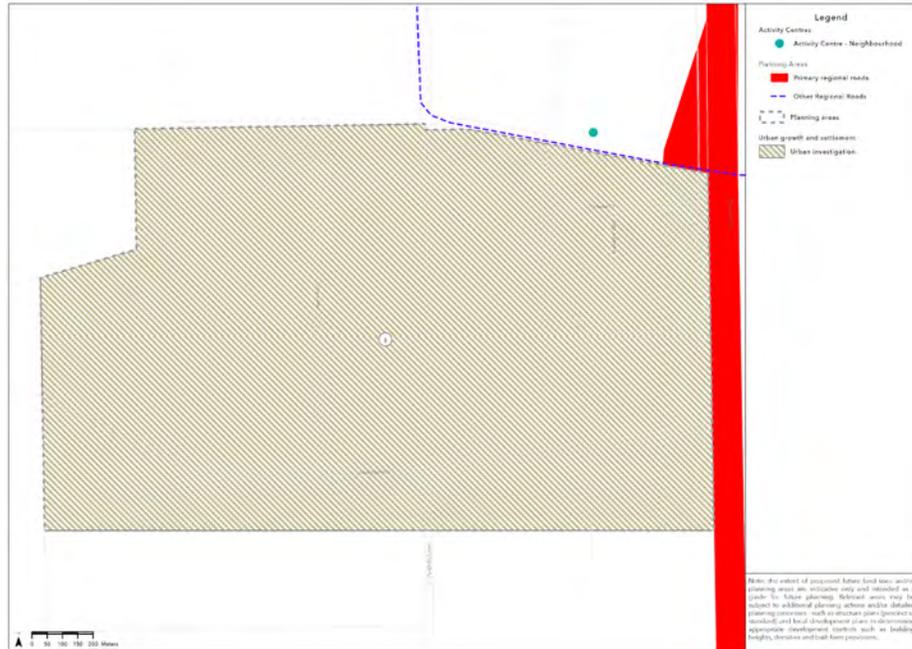


Figure 18: Coolup (South) Equine Living Planning Area J



Figure 19: Dwellingup Urban Investigation Planning Area K

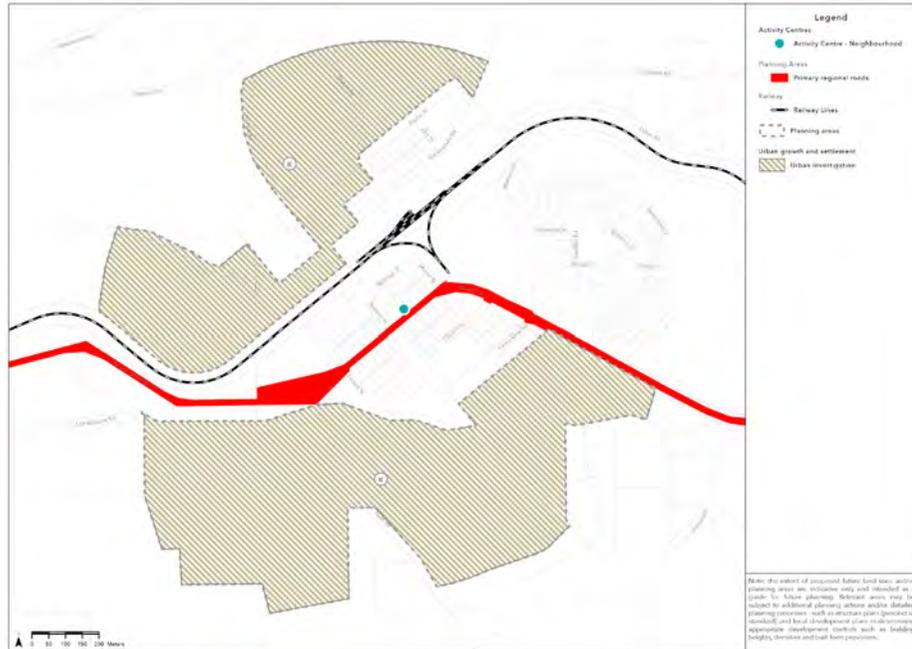


Figure 20: North Dandalup Planning Investigation Planning Area L

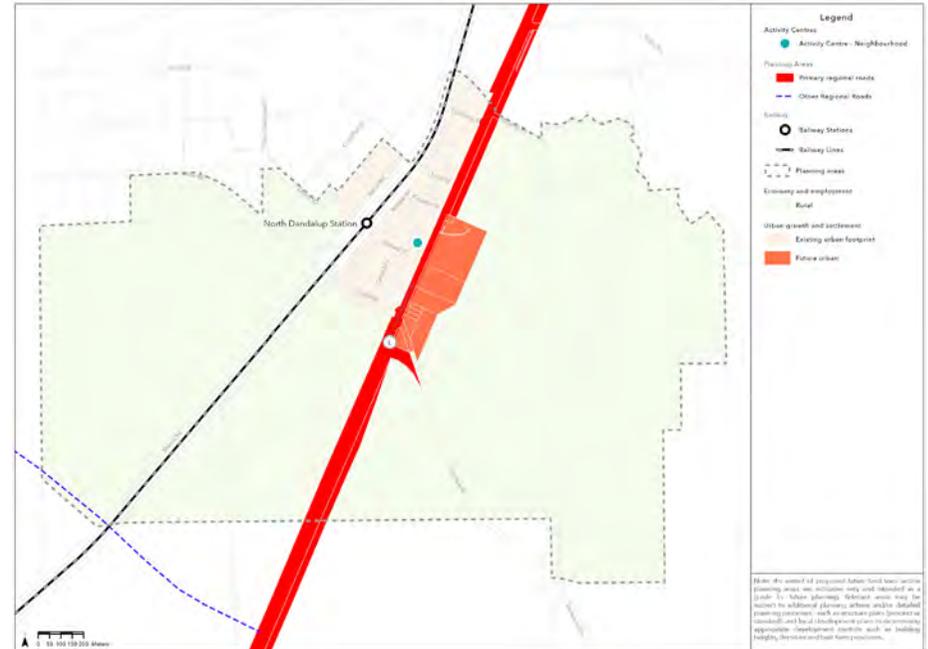


Figure 21: Mandurah-Ravenswood-Pinjarra High Priority Transit Corridor Planning Area M

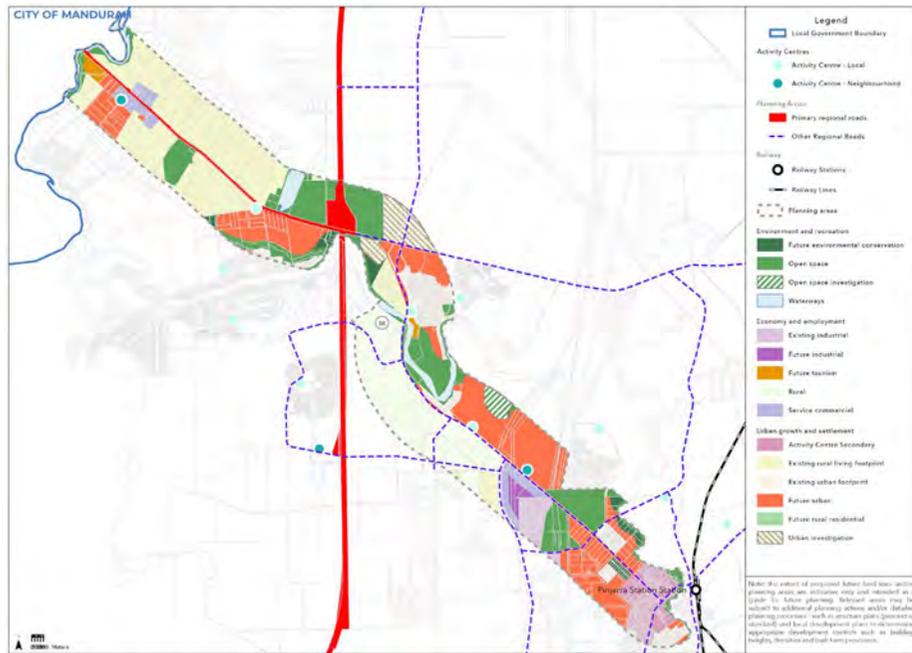


Figure 22: Keralup Employment Planning Area N



7 Implementation and review

Implementation of the actions within this Strategy are intended to occur over the 15-year life of the Strategy, according to the timeframes in the planning directions and actions tables.

Every 5 years a review of the local planning scheme and Strategy will be undertaken in the form of a report of review. The report of review will include a basic assessment of the status of all the actions in the Strategy to confirm whether actions are either completed, in progress, not commenced or no longer relevant.

Following adoption of the Strategy, amendments to LPS4 and/or preparation of a new LPS6 will be required to assist the implementation of the Strategy.

**Shire of
Murray**

Administration Office

1915 Pinjarra Road, Pinjarra WA 6208
PO Box 21 Pinjarra WA 6208

T: (08) 9531 7777

E: mailbag@murray.wa.gov.au

[f](#) [@](#) [in](#) @ShireofMurray

murray.wa.gov.au

Part 2 – Background information and Analysis



List of Figures

- Figure 1: State Planning Strategy structure
- Figure 2: Shire of Murray Strategic Community Plan themes and outcomes
- Figure 3: Estimated resident population 2006–2023
- Figure 4: Precincts within Shire of Murray
- Figure 5: Age structure – five year age groups 2021
- Figure 6: Highest qualification achieved 2021
- Figure 7: Weekly household income 2021
- Figure 8: Dwelling structure 2021
- Figure 9: Number of bedrooms per dwelling 2021
- Figure 10: Household size 2021
- Figure 11: Housing tenure, 2021
- Figure 12: Long term health conditions 2021
- Figure 13: Growth in gross regional product 2016-2021
- Figure 14: Unemployment rate 2016-2021
- Figure 15: Occupation of employment 2021
- Figure 16: Employment self-sufficiency 2016 – 2021
- Figure 17: Employment quality comparison 2021/23
- Figure 18: Population forecast 2021-51
- Figure 19: Pinjarra urban infill locations
- Figure 20: North Yunderup urban infill locations
- Figure 21: South Yunderup urban infill location
- Figure 22: Typical single residential dwelling
- Figure 23: Typical cottage dwelling
- Figure 24: Landscape character units
- Figure 25: Rural coastal plain landscape character unit
- Figure 26: Hills and forest landscape character unit
- Figure 27: Plain/hills hinterland landscape character unit
- Figure 28: Industrial (Oakley) Landscape character unit
- Figure 29: Industrial (Peel Business Park) Landscape character unit
- Figure 30: Urban (Pinjarra) landscape character unit
- Figure 31: Urban (North Dandalup) landscape character unit
- Figure 32: Urban (Dwellingup) landscape character unit
- Figure 33: Urban (Riverside) landscape character unit
- Figure 34: Urban (South Yunderup canals) landscape character unit
- Figure 35: Urban (Ravenswood) landscape character unit
- Figure 36: Overall Shire of Murray built form character
- Figure 37: Pinjarra built form character
- Figure 38: Dwellingup built form character
- Figure 39: Ravenswood built form character
- Figure 40: South Yunderup original settlement area built form character
- Figure 41: Austin Lakes estate built form character
- Figure 42: North Yunderup built form character
- Figure 43: North Dandalup built form character
- Figure 44: Furnissdale built form character
- Figure 45: Coolup built form character
- Figure 46: Barragup built form character
- Figure 47: Character statements for each settlement
- Figure 48: Aboriginal cultural heritage register sites
- Figure 49: Local Heritage Survey – Category A & B places
- Figure 50: History of the Murray
- Figure 51: Typical local sport and recreation precinct
- Figure 52: Typical neighbourhood sport and recreation precinct
- Figure 53: Typical district sport and recreation precinct
- Figure 54: Existing and proposed school locations
- Figure 55: Bushfire prone areas
- Figure 56: Floodway and flood fringe areas
- Figure 57: Coastal inundation areas 2120
- Figure 58: Shire of Murray Economic Development Strategy Strategic Opportunities
- Figure 59: Basic raw material extraction sites
- Figure 60: Mineral sands deposits
- Figure 61: Landforms and soils
- Figure 62: Public Drinking Water Source Areas
- Figure 63: Geomorphic Wetlands of Swan Coastal Plain
- Figure 64: Remaining native vegetation extent
- Figure 65: Biodiversity based on native vegetation cover
- Figure 66: Tree canopy extent 2024
- Figure 67: Road transport network
- Figure 68: 2050 Regional Roads
- Figure 69: Existing public transport network
- Figure 70: Service infrastructure

List of Tables

Table 1:	State Planning Policy overview and local planning strategy implications and responses	Table 32:	Activity Centres – Local
Table 2:	Regional planning instrument overview and local planning strategy implications and responses	Table 33:	Service commercial floorspace in other employment centres
Table 3:	Operational policies and local planning strategy implications and responses	Table 34:	Wetland classifications used by DWER
Table 4:	WAPC position statements, guidelines and local planning strategy implications and responses	Table 35:	Geomorphic wetlands of the Swan Coastal Plain management categories
Table 5:	Other relevant State or regional strategies, plans and policies and local planning strategy implications and responses	Table 36:	Remaining extent of vegetation complexes
Table 6:	Shire of Murray Strategic Community Plan summary and local planning strategy implications and responses		
Table 7:	Local planning policies and local planning strategy implications and responses		
Table 8:	Structure plans and local planning strategy implications and responses		
Table 9:	Other relevant strategies plans and policies and local planning strategy implications and responses		
Table 10:	Population distribution 2023		
Table 11:	Number of employees and businesses 2016-2022		
Table 12:	Employment by industry 2021		
Table 13:	Where residents work 2021		
Table 14:	Industry proportion of total jobs vs resident industry of employment 2021		
Table 15:	WA Tomorrow population forecasts 2016–2031		
Table 16:	Population forecasts 2021–2051		
Table 17:	Forecast population increase 2023–2051		
Table 18:	Forecast dwelling increase 2023-2051		
Table 19:	Dwelling and population capacity for various planning categories		
Table 20:	Areas to be removed from urban classification		
Table 21:	Minimum average residential densities		
Table 22:	Distribution of housing infill		
Table 23:	Local heritage survey – Category A & B sites		
Table 24:	Public open space distribution		
Table 25:	Neighbourhood community centres		
Table 26:	Liveable Neighbourhoods provision for School and TAFE sites		
Table 27:	Government primary school provision		
Table 28:	Government secondary school provision		
Table 29:	Existing and proposed schools		
Table 30:	Jobs summary 2023-2051		
Table 31:	Activity Centres – Secondary, District and Neighbourhood		



1 Introduction

The purpose of Part 2 is to provide the rationale and evidence base for Part 1. It provides the relevant background information and analysis which supports the planning directions and actions outlined within Part 1 of the Local Planning Strategy (Strategy). This part provides a summary of the relevant State, regional and local planning contexts and their implications for the Strategy. A local government profile is also included that provides a presentation and analysis of information relating to the demographic profile of the Shire and the key planning issues and opportunities influencing future development and land use of the Shire.



2 State and Regional Planning Context

2.1 State Planning Strategy 2050

The State Planning Strategy provides the strategic context and basis for the coordination and integration of land use planning and development across Western Australia, regional and local levels. 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 State Planning 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.

The Strategy broadly aligns with the vision, principles and strategic goals of the State Planning Strategy.

Figure 1: State Planning Strategy structure

VISION: SUSTAINED GROWTH AND PROSPERITY			
Diverse	Liveable	Connected	Collaborative
PRINCIPLES			
Community	Infrastructure	Economy	Regional development
	Environment	Governance	
STRATEGIC GOALS			
Global competitiveness	Strong and resilient regions	Sustainable communities	
	Infrastructure planning and coordination	Conservation	
STRATEGIC DIRECTIONS			
1. Economic development	2. Physical infrastructure	3. Social infrastructure	
1.1 Resource economy	2.1 Movement	3.1 Spaces and places	
1.2 Knowledge transfer	2.2 Water	3.2 Affordable living	
1.3 Tourism	2.3 Energy	3.3 Health and wellbeing	
1.4 Agriculture and food	2.4 Waste	4. Environment	
1.5 Remote settlements	2.5 Telecommunications	5. Security	
1.6 Land availability			
ACTION PLANNING			
	Implementation	Evaluation	

Source: State Planning Strategy, 2014

2.2 State Planning Policies

State Planning Policies (SPPs) are prepared under Part 3 of the *Planning and Development Act 2005* and provide the highest level of planning policy control and guidance in Western Australia. SPPs considered to be specifically relevant to the Shire are outlined and described in Table 1.

Table 1: State Planning Policy overview and local planning strategy implications and responses

State Planning Policy	Policy Overview	Local Planning Strategy Implications and Responses
<p>State Planning Policy 1 – State Planning Framework (SPP 1.0) (November 2017)</p>	<p>SPP 1.0 restates and expands on the key principles of the State Planning Strategy in planning for sustainable land use and development. It brings together existing State and regional policies, strategies and guidelines within a central State Planning Framework, which provides a context for decision making on land use and development in Western Australia.</p> <p>The Framework informs the Western Australian Planning Commission (WAPC), local government and others involved in the planning process on State level planning policy which is to be taken into consideration, and given effect to, in order to ensure integrated decision-making across all spheres of planning.</p> <p>The Framework identifies relevant policies and strategies used by the WAPC in making decisions and may be amended from time to time. The framework is the overarching SPP. Additional SPPs set out the WAPC’s policy position in relation to aspects of the State Planning Strategy principles.</p>	<p>The Strategy will need to align with the SPP 1.0 principles.</p>
<p>State Planning Policy 2.0 – Environment and Natural Resources Policy (SPP 2.0) (June 2003)</p>	<p>SPP 2.0 is a broad sector policy and provides guidance for the protection, management, conservation and enhancement of the natural environment. The policy promotes responsible planning by integrating environment and natural resource management with broader land use planning and decision-making.</p>	<p>The Strategy should align with SPP 2.0 by integrating sustainability principles, prioritising conservation, and enhancement of natural resources, landscape and cultural assets. Environmentally sensitive and high-biodiversity value areas should be set aside for protection, with setbacks and</p>

SPP 2.0 outlines general measures for matters such as water, air quality, soil and land quality, biodiversity, agricultural land and rangelands, basic raw materials, marine resources, landscapes and energy efficiency. These general measures should be considered in conjunction with environmental based, issue specific State planning policies which supplement SPP 2.0.

buffers around water bodies. Mineral and basic raw material resources and areas of agricultural significance should be protected. Development controls should incorporate water-sensitive urban design, energy efficiency and vegetation retention, while addressing climate adaptation through flood risk management, coastal risk management and support for renewable energy. Compact urban forms and energy efficient urban design should be promoted to reduce emissions.

State Planning Policy 2.1 – Peel-Harvey Coastal Plain Catchment (SPP 2.1) (February 1992)

SPP 2.1 ensures that land use changes within the Peel-Harvey Estuarine System are controlled to avoid and minimise environmental damage, while balancing economic viability of the primary sector. The policy aims to improve the social, economic, ecological, aesthetic and recreational potential of the catchment.

SPP 2.1 outlines policy provisions relative to rezoning proposals, various land use-based requirements, including subdivision requirements and retention of vegetation.

The Swan Coastal Plain portion of the Shire is included within the Peel Harvey Coastal Plain Catchment Area and therefore requires suitable land use and development controls to ensure environmental protection of the estuarine system. The Strategy will need to include suitable commentary on the need to protect and improve the environmental health of the Peel Harvey Estuarine System and actions relating to the following for the Shire's new Local Planning Scheme No. 6 (LPS6):

- Delineation of the catchment boundary.
- The model provisions from the SPP.
- Interpretations of Intensive Agriculture and Aquaculture from the SPP and 'D' or 'X' permissibility for these uses in Rural zones.
- Provisions for the retention of native vegetation, particularly along watercourses and an increase in vegetation coverage.

State Planning Policy 2.4 – Planning for Basic Raw Materials (SPP 2.4) (July 2021)

SPP 2.4 seeks to ensure basic raw materials (BRM) and extractive industries matters are considered during planning and development decision-making, to facilitate the responsible extraction and use of the State's BRM resources. The policy establishes objectives relating to recognising the importance of BRM early in the planning process; protecting BRM through avoiding encroachment from incompatible land uses; efficient use of BRM; identifying BRM extraction opportunities through sequential land use and ensuring BRM extraction avoids, minimises or mitigates impacts on the community and the environment.

The Strategy should identify and provide for the protection of Significant Geological Supply and Extraction Sites through suitable zoning, separation distances, and transitional land uses to prevent conflicts with sensitive areas. An action should be included to include provisions in the LPS6 to allow for sequential land use, enabling BRM extraction followed by urban or industrial development where feasible, requiring rehabilitation plans for extraction sites and development controls to minimise impacts on water resources, biodiversity,

and community amenity, ensuring compliance with Environmental Protection Authority guidelines.

State Planning Policy 2.5 – Rural Planning (SPP 2.5) (December 2016)

SPP 2.5 applies to rural land and rural land uses as well as land that may be impacted by rural land uses. SPP 2.5 seeks to protect and preserve Western Australia's rural land assets due to the importance of their economic, natural resource, food production, environmental and landscape values. SPP 2.5 includes policy measures aimed at protecting rural land while encouraging a diversity of compatible rural land uses.

The Strategy should identify priority agricultural land for protection and limit rural living developments to areas identified as part of a settlement hierarchy and consistent with specified requirements. The Strategy should provide for a diversification of rural activities and safeguard environmental and natural assets through suitable planning controls.

State Planning Policy 2.6 – State Coastal Planning (SPP2.6) (July 2013)

SPP 2.6 provides for the long term sustainability of Western Australia's coast and is relevant to those local governments that contain coastal areas. The purpose of the policy is to provide guidance for decision-making within the coastal zone including managing development and land use change, establishment of foreshore reserves and protecting, conserving and enhancing coastal values.

SPP 2.6 outlines criteria for the consideration of development and settlement arrangements, including building height limits within local planning frameworks and management of water resources. It further acknowledges the importance of coastal planning strategies, coastal hazard risk management approaches, coastal foreshore reserves and community participation in coastal planning.

The Peel Havey Estuary and tidal influenced reaches of the Murray and Serpentine Rivers are considered coastal and therefore impacted by this SPP. The Strategy should identify areas vulnerable to coastal hazards and the suitable protection pathway. New development in coastal areas should be considered through zoning and development controls, including setbacks based on coastal hazard risk assessments and the need for suitable foreshore reserves to accommodate a range of functions and values. New inappropriate development in hazard-prone areas should be avoided. Public access to the coast should be preserved while ensuring developments are compatible with environmental and cultural values. Adaptation strategies for climate change impacts, such as managed retreat or engineered solutions, should be integrated to ensure long-term coastal resilience and sustainable development.

State Planning Policy 2.7 – Public Drinking Water Source (SPP 2.7) (June 2003)

The purpose of SPP 2.7 is to inform decision-makers of those aspects of state planning policy concerning the protection of Public Drinking Water Supply Areas throughout the State.

It is intended that this be implemented through the preparation of strategic plans, regional and local planning schemes, conservation and management strategies, and other relevant plans or guidelines, as well as through decision-making on subdivision and development applications.

The Strategy should identify Public Drinking Water Source Areas and include an action for a Special Control Area (SCA) for all priority source protection areas in LPS6. The SCA should provide for referral of applications to the Department of Water and Environment Regulation for advice and comments and set out relevant considerations for determining planning applications.

Draft State Planning Policy 2.9 – Planning for Water (SPP2.9) (August 2021)

SPP 2.9 seeks to ensure that planning and development considers water resource management and includes appropriate water management measures to achieve optimal water resource outcomes. The policy establishes objectives relating to improving environmental, social, cultural and economic values of water resources; protecting public health through appropriate water supply and waste water infrastructure; sustainable use of water resources and managing the risk of flooding and water related impacts of climate change on people, property and infrastructure.

The Strategy should identify and protect critical water resources through zoning and land use controls, particularly in hydrologically sensitive areas. Provisions for Water Sensitive Urban Design and stormwater management should be embedded in development requirements to enhance water efficiency and quality. Development in flood-prone or constrained areas should be limited, and land use planning should prioritise compatibility with sustainable water management.

State Planning Policy 3.0 – Urban Growth and Settlement (SPP 3.0) (March 2006)

SPP 3.0 is a broad sector policy that sets out the principles and considerations which apply to planning for urban growth and settlement in Western Australia. The purpose of the policy is to facilitate sustainable patterns of urban growth and settlement by setting out the requirements of sustainable settlements and communities and the broad policy for accommodating growth and change.

SPP 3.0 outlines general measures to create sustainable communities, plan liveable neighbourhoods, coordinate services and infrastructure, manage rural residential growth and plan for aboriginal communities. These general measures should be considered in conjunction with issue specific urban growth and settlement state planning policies which supplement SPP 3.0.

The Strategy should direct urban growth to areas with established infrastructure and services while avoiding sprawl and protect agricultural and environmentally sensitive land. The Strategy should promote compact, connected urban forms with diverse housing and integrated transport networks to reduce car dependency.

State Planning Policy 3.4 – Natural Hazards and Disasters (SPP 3.4) (April 2006)

SPP 3.4 encourages local governments to adopt a systemic approach to the consideration of natural hazards and disasters. The objectives of this policy are to include planning for natural disasters as a fundamental element in the preparation of planning documents, and through these planning documents, minimise the adverse impacts of natural disasters on communities, the economy and the environment.

SPP 3.4 sets out considerations for decision makers in relation to hazards including flood, bush fire, landslides, earthquakes, cyclones and storm surges. Consideration of these hazards should be undertaken in conjunction with issue specific state planning policies which supplement SPP 3.4.

The Strategy should identify hazard prone areas and provide for zoning and development controls to minimize risks. Development in high-risk areas should be restricted or require mitigation measures such as flood controls, bushfire protection, or erosion management. Hazard mapping and risk assessments should guide planning decisions, and provisions should ensure developments incorporate resilience and adaptation measures. Key natural hazards relevant to the Shire include bushfire, flood and coastal inundation and erosion. These planning for these hazards is more specifically addressed in State Planning Policy 3.7 – Planning in Bushfire Prone Areas, Peel Region Scheme Floodplain Management Policy and State Planning Policy 2.6 - State Coastal Planning.

State Planning Policy 3.5 – Historic Heritage Conservation (SPP 3.5) (May 2007)

SPP 3.5 sets out the principles of sound and responsible planning for the conservation and protection of Western Australia’s historic heritage. The policy seeks to conserve places and areas of historic heritage significance and to ensure development does not adversely affect the significance of heritage places and areas.

SPP 3.5 primarily relates to historic cultural heritage noting that aboriginal heritage and natural heritage are protected by other legislative instruments. Historic cultural heritage includes heritage areas, buildings and structures, historic cemeteries and gardens, man-made landscapes and historic or archaeological sites with or without built features.

The policy contains development control principles and considerations for decision-makers for where development is proposed within a heritage place and heritage area. The policy also states that care should be taken by decision makers to minimise the extent to which land use zoning and other planning controls conflict with, or undermine, heritage conservation objectives.

The Strategy should identify heritage sites and areas of significance and promote the conservation and adaptive reuse of identified places.

The Shire has prepared a Local Heritage Survey which identifies places and areas of significance that should be included on the Heritage List or designated as a Heritage Area for protection under the local planning scheme. This includes places within the Shire that are included on the State Register of Heritage Places as well as places with local heritage significance. Actions for LPS6 should include the preparation of a heritage list and heritage area local planning policies based on the Shire’s Local Heritage Survey.

State Planning Policy 3.6 – Infrastructure Contributions (SPP 3.6) (April 2021)

SPP 3.6 sets out the principles and requirements that apply to the establishment and collection of infrastructure contributions in new and established areas. The policy establishes objectives to coordinate the efficient and effective delivery of infrastructure to support population growth and development; provide clarity on the acceptable methods of collecting and coordinating contributions for infrastructure and provide the framework for a transparent, equitable, and accountable system for apportioning, collecting and spending contributions.

The community infrastructure needs to support the Shire’s planned growth on a strategic basis should be established through a Community Infrastructure Plan. This will inform community infrastructure developer contribution plans for specific areas. Structure plans for growth areas should identify development related infrastructure requirements and instances where it is appropriate for cost sharing arrangements to be established through the preparation of development contribution plans or landowner agreements. This SPP will guide the preparation of developer contribution plans or landowner agreements.

State Planning Policy 3.7 – Bushfire (SPP 3.7) (November 2024)

SPP 3.7 and supporting guidelines seek to identify and consider bushfire requirements early in the planning process and seeks to ensure that future development appropriately balances bushfire risk mitigation and environmental conservation measures.

The new policy seeks to implement effective, risk-based land use planning and development which in the first instance avoids the bushfire risk, but where unavoidable, manages and/or mitigates the risk to people, property and

The Strategy should identify bushfire prone areas based on the Map of Bush Fire Prone Areas designated by the Fire and Emergency Services Commissioner. Areas proposed for land use change or increased intensity will require justification through a hazard level assessment and/or bushfire management plan. This will include areas for identified for future urban or industrial growth. Many of the future growth areas that have been zoned for urban or industrial purposes or where approved structure plans are in place already have

infrastructure to an acceptable level. The preservation of life and the management of bushfire impact are paramount.

The policy applies to all land which has been designated as bushfire prone by the Fire and Emergency Services Commissioner as well as areas that may have not yet been designated as bushfire prone but is proposed to be developed in a way that introduces a bushfire hazard.

an approved hazard level assessment and/or bushfire management plan. A Strategic Bushfire Hazard Assessment has been undertaken to support the remaining growth areas under the Strategy.

Areas for land use intensification should generally be avoided in areas with broader landscapes that present an unacceptable bushfire risk, except where the proposal has demonstrated through an outcomes based approach that the broader landscape risk to people, property and infrastructure is acceptable.

State Planning Policy 4.1 – Industrial Interface (SPP 4.1) (July 2022)

SPP 4.1 guides planning decisions with the aim of protecting the long-term future operation of industry and infrastructure facilities, by avoiding encroachment from sensitive land uses and potential land use conflicts. The policy encourages the use of statutory buffers, facilitating industrial land uses with off-site impacts within specific zones and compatible interface between strategic/general industry zones and sensitive zones.

SPP 4.1 supports land use conflict being addressed as early as possible in the planning process. It is also expected that land use conflict will be subsequently considered at each stage of the planning framework, increasing in detail at each level.

The policy recognises the overlap of various environmental, health and safety regulations and guidelines and outlines considerations for decision-makers in this regard.

The Strategy should identify industrial areas and applying appropriate buffers and separation distances to protect both industrial operations and sensitive land uses. Further it should promote transitional land uses where necessary and ensure compliance with Environmental Protection Authority guidelines to mitigate environmental and amenity impacts.

State Planning Policy 4.2 – Activity Centres (SPP 4.2) (March 2023)

SPP 4.2 and its Implementation Guidelines applies to the preparation and assessment of planning instruments and certain subdivision and development applications that relate to activity centres within the Metropolitan (Perth), Peel and Greater Bunbury Region Scheme areas. Where appropriate, SPP 4.2 may also apply outside of these region scheme areas at the discretion of the WAPC.

SPP4.2 seeks to locate people and the employment, goods and services they need close to each other within activity centres. SPP 4.2 seeks to provide for a consistent approach for the planning and development of a network of multi-functional activity centres of various levels within a hierarchy in order to meet community needs, provide economic, social and environmental benefits and

The Strategy should identify a hierarchy of activity centres that support local needs and encourage mixed-use development. This will include the Pinjarra Secondary Centre and the Ravenswood (Riverfront) District Centre. The Strategy should prioritise higher density residential and diverse land uses within activity centres, integrate public transport, and enhance walkability. Subdivision and development within activity centres should be guided by Precinct Structure Plans for higher order centres or Local Development Plans for lower order centres. Development controls should ensure balanced growth, prevent over-concentration of retail, and promote high-

enable the distribution of a broad range of jobs, goods and services. SPP 4.2 seeks to provide for a diversity of land uses within activity centres including retail, commercial, food and hospitality, medium and high density housing, entertainment, tourism, civic/community, higher education and medical services. The precise land use mix should be informed by a range of factors including the need to provide for employment opportunities.

SPP 4.2 identifies that a needs analysis should be prepared as part of the background analysis step of preparing a local planning strategy. The analysis (Needs Assessment) provides an information base to support decision making by including an assessment of projected activity centre land use needs of communities in a local government area and its surrounds.

SPP 4.2 requires the preparation of precinct structure plans for strategic, specialised, secondary and district centres, although in limited circumstances this may not be required. Neighbourhood and local activity centres may require either a precinct structure plan or local development plan, at the discretion of the decision-maker. This requirement or otherwise should be outlined in the local planning strategy in order to provide certainty.

quality urban design. A Local Activity Centre and Economic Planning Strategy has been prepared to support the Strategy. This includes a Needs Assessment to assess the projected land use needs and the demand for activity centre uses.

State Planning Policy 5.2 – Telecommunications Infrastructure (SPP 5.2) (September 2015)

SPP 5.2 recognises telecommunications infrastructure as an essential service and aims to balance the need for this infrastructure and the community interest in protecting the visual character of local areas. The policy aims to provide clear guidance pertaining to the siting, location and design of telecommunications infrastructure and sets out specific exemptions for where the policy requirements do not apply.

Decision-makers should ensure that telecommunications infrastructure services are located where it will facilitate continuous network coverage and/or improved telecommunications services to the community whilst not comprising environmental, cultural heritage, social and visual landscape values.

The Strategy should include actions to ensure the zoning table in LPS6 designates telecommunications infrastructure as a permitted (P) use in zones where the location of telecommunications infrastructure is supported and is not designated as a 'use not permitted' (X) in any other zone.

State Planning Policy 5.4 – Road and Rail Noise (SPP 5.4) (September 2019)

SPP 5.4 provides guidance for the performance-based approach for managing and mitigating transport noise associated with road and rail operations.

This policy applies where noise sensitive land uses are located within a specified distance of a transport corridor, new or major road or rail upgrades are proposed or where works propose an increase in rail capacity resulting in

The Strategy should identify noise-sensitive areas near major roads and rail corridors and consider compatible land uses near transport infrastructure. SPP 5.4 will also inform the preparation of structure plans with affected areas needing to undertake noise impact assessments and mitigation measures

increased noise. The policy also sets out specific exemptions for where the policy requirements do not apply.

SPP 5.4 supports noise impacts being addressed as early as possible in the planning process to avoid land use conflict and achieve better land use planning outcomes. Considerations for decision-makers include ensuring that the community is protected from unreasonable levels of transport noise, whilst also ensuring the future operations of transport corridors.

SPP 5.2 is supplemented by the Road and Rail Noise Guidelines.

such as setbacks or design requirements to minimise noise impacts.

State Planning Policy 7.0 – Design of the Built Environment (SPP 7.0) (May 2019)

SPP 7.0 is a broad sector policy relevant to all local governments. The policy sets out the objectives, measures, principles and processes which apply to the design and assessment of built environment proposals through the planning system. It is intended to apply to precinct structure plans, structure plans, local development plans, subdivision, development and public works.

The policy contains 10 design principles which set out specific considerations for decision makers when considering the above proposals. These include, context and character, landscape quality, built form and scale, functionality and build quality, sustainability, amenity, legibility, safety, community and aesthetics. The policy also encourages early and on-going discussion of design quality matters and the use of design review.

These principles should be considered in conjunction with the range of supporting State Planning Policies that provide design quality guidance for specific types of planning and development proposals.

The Strategy should reference the 10 design principles to guide development and ensure high-quality, sustainable outcomes. It should encourage developments that enhance local character, support community inclusivity, and promote environmental sustainability. Further the Strategy should include an action for LPS6 to include provisions relating to the establishment and operation of a Design Review Panel to review significant planning proposals and ensure the built environment contributes positively to the Shire's functionality, identity, and long-term resilience.

State Planning Policy 7.2 – Precinct Design (SPP 7.2) (February 2021)

SPP 7.2 provides guidance for precinct planning with the intent of achieving good planning and design outcomes for precincts within Western Australia. The policy recognises that there is a need to plan for a broader range of precinct-based contexts and conditions to achieve a balance between greenfield and infill development. Objectives of the policy include ensuring that precinct planning and design processes deliver good-quality built environment outcomes that provide social, economic and environmental benefit to those who use them.

Precinct types include activity centres, station precincts, urban corridors, residential infill and heritage precincts. These areas are recognised as requiring

The Strategy should identify centres that require either precinct structure plans or local development plans to guide subdivision and development. SPP 7.2 will also inform the preparation of precinct structure plans or local development plans.

a high-level of planning and design focus in accordance with a series of precinct outcome considerations as outlined in the policy. The policy also encourages the use of design review.

State Planning Policy 7.3 – Residential Design Codes Volumes 1 and 2 (April 2024) (SPP 7.3)

SPP 7.3 – Residential Design Codes Volume 1 and 2 provides the basis for the control of residential development throughout Western Australia for single houses, grouped dwellings and multiple dwellings. The purpose of the policy is to address emerging design trends, promote sustainability, improve clarity and highlight assessment pathways to facilitate better outcomes for residents. They are also used for the assessment of residential subdivision proposals.

The policy outlines various objectives for residential development, planning governance and development process and sets out information and consultation requirements for development proposals. The policy also makes provision for aspects of specified design elements to be varied through the local planning framework.

The Strategy should include a housing element that considers the issues that are relevant to housing and the selection of the relevant density codes for the various parts of the Shire ensuring they provide a diverse range of housing types and densities, to meet community needs. The Strategy should also consider areas to amend or replace provisions of the Residential Design Codes.



2.3 Regional Planning Context

The WAPC prepares various regional planning instruments to guide land use and development at the regional and sub-regional level, including:

- Regional and Sub-regional planning strategies and structure plans;
- Regional Planning Schemes.

Regional planning instruments considered to be specifically relevant to the Shire are outlined and described in Table 2.

Table 2: Regional planning instrument overview and local planning strategy implications and responses

Regional Planning Instrument	Regional Planning Instrument Overview	Local Planning Strategy Implications and Responses
Peel Region Scheme (PRS) (2003)	The Peel Region Scheme (PRS) outlines objectives for regional development and provides a statutory mechanism to assist strategic planning, by setting out broad land-use zones, setting aside areas for regional open space, protection of environmental values and other regional infrastructure purposes, and assisting in coordinating the provision of major infrastructure. Local government planning (including local planning schemes) is required to be consistent with the broad land uses under the PRS.	The land use direction proposed in the Strategy will need to align with the broad zones and reserves under the PRS. The Environmental conditions relating to the need for environmental management plans; drainage, nutrient and water management plans; biological surveys; and connection to reticulated sewerage will need to be considered when preparing or amending LPS6 or considering applications for subdivision or development.
Peel Region Scheme Priority Agricultural and Rural Land Use Policy (July 2017)	The Peel Region Scheme Priority Agricultural and Rural Land Use Policy seeks to protect high-quality agricultural land within the Peel Region, ensuring its long-term viability and preventing inappropriate subdivision or non-agricultural uses. It supports diversification and value adding activities to strengthen rural economies while safeguarding rural character, biodiversity, and natural resources. The policy promotes sustainable land management practices and alignment of local planning instruments with regional priorities to balance	The Strategy should identify priority agricultural land, together with associated buffers from the policy for protection against incompatible uses and subdivision. The Strategy should include an action to zone this land 'Priority Agriculture' and include land use permissibility and provisions consistent with the objectives and requirements of the Policy to promote sustainable land management practices and integrate rural

agricultural productivity, environmental conservation, and rural community needs.

land use priorities to ensure the long term viability of agriculture and natural resource conservation.

Peel Region Scheme Strategic Minerals and Basic Raw Materials Resource Policy (October 2002)

The Peel Region Scheme Strategic Minerals and Basic Raw Materials (BRM) Resource Policy aims to protect significant mineral and basic raw material resources within the Peel Region to ensure their availability for current and future use. It safeguards strategic geological supplies and extraction sites from incompatible land uses, promotes sequential land use planning to enable extraction followed by suitable development and requires suitable assessments to mitigate impacts on communities and ecosystems.

The Strategy should identify strategic mineral and BRM areas, together with associated buffers. The Strategy should include an action to include these areas in a SCA under LPS6 and not prohibit mineral exploration, extraction of basic raw materials or mining of mineral resources within the area. The SCA should include provisions consistent with the objectives and requirements of the Policy to prevent encroachment by incompatible uses, ensure rehabilitation of land consistent with the long term use of the land, promote sequential land use planning and ensure environmental and social impacts are mitigated.

Peel Region Scheme Floodplain Management Policy (October 2002)

The Peel Region Scheme Floodplain Management Policy aims to guide the management of flood risks within the Peel Region, specifically addressing land use and development in flood prone areas. The policy emphasises the need to incorporate floodplain management into local planning frameworks, ensuring that development in flood prone areas is safe, resilient and does not exacerbate flood risks. It advocates for flood risk assessments, appropriate zoning, and flood management measures in land use planning.

The Strategy should identify flood prone areas, including the flood way and flood fringe areas within the Shire and include an action for a SCA under LPS6 which requires development approval for all development within flood prone areas and includes suitable development controls and referral requirements consistent with the policy objectives and provisions.

Peel Region Scheme Boating facilities Policy (February 2014)

The Peel Region Scheme Boating Facilities Policy provides guidance on the planning, development, and management of boating facilities in the Peel Region. It aims to support safe, sustainable, and accessible boating facilities while minimising environmental impact. The policy addresses the need for well located, appropriately designed facilities and the management of waterway access, taking into account factors like environmental protection, community use, and the integration of boating facilities with other land uses and infrastructure.

The Policy mainly relates to assessment of development proposals for boating facilities. The Strategy should however identify areas where public boating infrastructure could be developed or improved, including facilities to support access to the Murray Delta Islands, ensuring compatibility with the surrounding environment and land uses.

Perth and Peel @ 3.5 Million (March 2018)

The Perth and Peel @ 3.5 Million suite of strategic land use and infrastructure plans, including four Sub-regional Planning Frameworks (north-west, north-east, central and south metropolitan peel), seek to guide the future growth of

The Strategy should align with the key principles and land use elements outlined in the Perth and Peel @ 3.5 Million document to contribute towards a compact, consolidated and connected urban structure.

the Perth and Peel regions as a compact, consolidated and connected city that can accommodate a population of 3.5 million by 2050.

The four Perth and Peel @ 3.5 Million frameworks seek to balance the social, economic and environmental factors that underpin new communities and sustain existing ones through clear land use and infrastructure guidance.

Southern Metropolitan Peel Sub-regional Planning Framework (March 2018)

The Southern Metropolitan Peel Sub-regional Planning Framework (Framework) provides high level guidance for the growth of the Southern Metropolitan Peel sub-region and forms part of the Perth and Peel @ 3.5 Million suite of strategic land use and infrastructure plans.

The Southern Metropolitan Peel Framework provides high-level guidance regarding where new homes and jobs will be located, how to make best use of existing and proposed infrastructure and how best to protect the natural environment to allow sustainable growth within the Southern Metropolitan Peel sub-region.

The Strategy should align with the key principles and land use proposals outlined in the Framework. Key elements include:

- Consolidating the urban form to limit the identification of new greenfield areas to where they provide a logical extension to the urban form, place a greater emphasis on urban infill, increase residential density and avoid areas that are at a high risk of bushfire where risks cannot be satisfactorily mitigated. A target of 1080 infill dwellings should be identified for the Shire to be achieved by 2050.
- An increase of 78,350 jobs in the Peel Sector, increasing employment self-sufficiency from 72 - 79%.
- Key centres to include Pinjarra Secondary and Ravenswood (Riverfront) District Activity Centre.
- Expansion of Industrial areas at Nambeelup and Pinjarra and to allow for increased residue and residue water storage adjacent to the Alcoa refinery.
- The need for further investigation to consider alternate future land uses for Keralup.
- An effective and adaptable public transport system that includes at its centre a high priority transit corridor which will facilitate priority over other traffic and connect activity centres, population catchments and rail stations between Mandurah and Pinjarra and also form the focus of local bus services.
- Improvements to the regional transport network including the southward extension of Tonkin Highway as a key freight corridor, east west connections including Mandjoogoordap Drive, Lakes Road, Old Mandurah Road and a realignment of Pinjarra Road at Ravenswood.

- Safeguarding important environmental assets, including the Peel-Harvey Estuary, its catchment and foreshores, Murray and Serpentine Rivers, the adjacent wetland chain, Nambeelup Brook and their foreshores, the Darling Scarp and extensive Jarrah Forest in the Darling Plateau and the sustainable management of water resources.
- Maximising the use of and adding value to existing infrastructure.
- Retention of land for agriculture and food production.
- Limited support for new rural residential areas.
- Regional sporting facility at Ravenswood and a review of the need for long-term tertiary and future ancillary use requirements at Ravenswood.
- A new cemetery site at Keralup.



2.4 Operational Policies

Operational policies guide decision making in relation to subdivision and development applications. Those operational policies considered relevant to the Strategy are listed and described in Table 3.

Table 3: Operational Policies and local planning strategy implications and responses

Policy	Policy Overview	Local Planning Strategy Implications and Responses
DC Policy 1.6 Planning to Support Transit Use and Transit Oriented Development (January 2006)	Policy DC 1.6 provides guidance for integrating land use and transit planning to promote higher transit use and reduce car dependency. The policy emphasises transit oriented development principles, encouraging higher residential densities, mixed use development and pedestrian-friendly environments around transit nodes and corridors. It recommends a 400 metre walkable catchment for high frequency bus routes and 800 metre catchment for train stations to maximise accessibility. The policy highlights the need for compact urban forms, connected street networks and well designed public spaces to encourage active transport and transit use.	The Strategy should apply transit oriented development principles to enhance public transport accessibility and reduce car dependency in growth areas. Planning should prioritise higher density residential and mixed use development within the walkable catchment of transit routes to maximise transit access. The Strategy should also promote pedestrian friendly urban design, connected street networks and public spaces that encourage walking and cycling. The guidance provided in the Strategy for the Mandurah to Pinjarra Transit Corridor should align to the principles of the policy.
DC Policy 1.8 Canal Estates and Artificial Waterway Developments (May 2012)	Policy DC 1.8 provides a framework for the assessment and approval of canal estates and artificial waterway developments to ensure environmental, social, and economic sustainability. The policy emphasises minimising adverse impacts on natural water systems, including water quality, hydrology, and biodiversity. It highlights the importance of effective management plans, appropriate engineering standards and long-term maintenance strategies.	For the established canal estates within the Shire the Strategy should include an action for LPS6 to include a SCA that requires development approval for all development on lots fronting the canals and suitable development provisions to ensure maintenance of the character and amenity of the canal locality based generally on the model provisions in the policy.
DC Policy 1.10 Freeway Service Centres and Roadhouses, including Signage (August 2016)	Policy DC 1.10 provides guidelines for the location, design and operation of freeway service centres and roadhouses to ensure they meet traveller needs without compromising road safety or efficiency. The policy specifies that service centres must be located on major freeways or highways at least 40 km apart. Developments should provide essential facilities, including fuel, food, and rest areas and be designed with safe access and egress points. The policy also	For the established freeway service centres adjacent to the Forest Highway in West Pinjarra, the Strategy should include an action to specify the interpretation of 'Freeway service centre' and zone the affected land Special Use Service Centre

outlines requirements for signage to ensure clear, consistent information without visual clutter or safety hazards.

with key development controls generally consistent with the policy.

Draft OP Policy 2.3 Planning for Public Open Space (June 2023)

Draft DC 2.3 provides a framework to ensure the provision, design, and management of public open spaces (POS) aligns with community needs, environmental considerations and long-term sustainability. The policy emphasises the integration of POS into urban design, promoting accessible, multi-functional spaces that support recreation, biodiversity and water management.

The Policy recommends allocating a minimum of 10% of the gross subdivisible area for POS, while encouraging the inclusion of high quality active and passive recreational facilities. It highlights the importance of equitable distribution, connectivity and the preservation of natural landscapes, with a focus on climate resilience and community well-being.

The Strategy should include actions to:

- undertake a strategic assessment of the existing and anticipated future community needs for public open space across the urban areas of the Shire to provide direction to local decision making about POS; and
- depict POS as Reserve for Public Open Space on the scheme map.

OP Policy 2.4 School sites (December 2022)

Policy DC 2.4 outlines the WAPC's framework for the planning and provision of school sites to meet the needs of growing communities. It emphasises the need for adequate, accessible and well located school sites that cater to projected student populations.

The policy provides specific criteria for site selection, including size requirements, accessibility to residential areas, integration with public open space and connectivity to safe transport routes.

The Strategy should identify suitable locations for primary school, high school and TAFE sites to support the Shire's growing population to enable adequate provision to be made in the next phases of planning. It should also incorporate suitable location and site criteria for these sites such as provision rates, minimum sizes and requirements and prioritise sites with good access to residential areas, transport networks and shared facilities like public open spaces.

Draft DC Policy 4.3 - Planning for high-pressure gas pipelines (December 2016)

Draft DC Policy 4.3 provides guidance on land use planning and development near high pressure gas pipelines to ensure public safety, operational efficiency and pipeline integrity.

The policy establishes planning controls for development within defined pipeline corridors, including restrictions on sensitive land uses, such as schools and hospitals and requirements for risk assessments and buffer zones. It aims to mitigate risks associated with pipeline operations and ensure alignment with the Australian Standard AS2885 on gas and liquid petroleum pipelines.

The Strategy should identify existing high pressure gas pipeline corridors within the Shire and describe the policy measures likely to apply at later stages of the planning process. Furthermore, the Strategy should prioritise long term protection of pipeline corridors from encroachment through appropriate zonings.

Liveable
Neighbourhoods
(January 2009)

Liveable Neighbourhoods provides an integrated approach to structure planning and subdivision for sustainable communities, prioritising walkability, connectivity and efficient use of land and infrastructure. The policy promotes the development of compact, mixed-use neighbourhoods that reduce car dependence, support local employment and integrate green spaces and public transport. Key elements include creating a legible street network, providing a minimum of 10% public open space, achieving target residential densities in greenfield developments and supporting water sensitive urban design.

The Strategy should align with Liveable Neighbourhoods by encouraging compact, mixed-use urban development that prioritises walkable neighbourhoods and efficient use of land and infrastructure. It should include minimum average residential densities for new residential areas and increased minimum densities in strategically located residential areas in close proximity to activity centres and public transport. The Strategy should emphasise a well-connected road and pedestrian network that links public open spaces, community facilities and public transport to reduce car dependency. Additionally, it should ensure the provision of diverse housing types and densities, to meet the needs of the growing population.



2.5 WAPC Position Statements and Guidelines

Position statements are prepared by the WAPC to set out its policy position or advice on a particular planning practice or matter. Guidelines provide detailed guidance on the application of WAPC policies. Those WAPC position statements or guidelines considered relevant are included in Table 4.

Table 4: WAPC position statements, guidelines and local planning strategy implications and responses

Position statement/guidelines	Overview	Local Planning Strategy Implications and Responses
<p>Position Statement: Residential Accommodation for Ageing Persons (March 2024)</p>	<p>This Position Statement has been prepared by the WAPC to outline the requirements to support the provision of residential accommodation for ageing persons within Western Australia's local government planning framework. The position statement seeks to achieve consistent strategic planning consideration of residential accommodation needs for ageing persons in local planning strategies and consistent statutory planning guidance to standardise land use definitions and zoning permissibility for residential accommodation for ageing persons in local planning schemes.</p>	<p>The Strategy should provide for integrating residential accommodation for ageing persons within communities, ensuring accessibility to transport networks, health services, and daily amenities by including actions for LPS6 to include land use definitions and land use categories for 'Residential Aged Care Facility' and 'Independent Living Complex'. Both uses should generally be permitted in residential and mixed use zones, while being prohibited in industrial zones to avoid land use conflicts.</p>
<p>Position Statement: Container Deposit Scheme Infrastructure (September 2020)</p>	<p>The position statement has been prepared by the WAPC to outline how container deposit scheme (CDS) infrastructure should be considered and assessed in the Western Australian planning system. The position statement seeks to ensure:</p> <ul style="list-style-type: none"> a coordinated approach to the provision of CDS infrastructure throughout WA that appropriate locations are chosen for the installation of CDS infrastructure the timely roll-out of infrastructure in support of the scheme's establishment and ongoing operational needs 	<p>The Strategy should include actions to:</p> <ul style="list-style-type: none"> include land-use definitions and land use categories for Container deposit recycling centre. This use should be permissible in mixed business/service commercial and bulky goods areas, along with some commercial and light/service industrial areas and on a case-by-case basis in shopping or town centre zones with regard for neighbouring amenity, particularly where residential land uses are located nearby.

- minimum development requirements are established to exempt certain CDS infrastructure from requiring planning approval, for adoption by local governments.
- Adopt a local planning policy based generally on the model in the Position Statement to set out suitable exemptions from the requirement to obtain development approval for smaller scale facilities and location and development standards to manage associated amenity impacts.

Position Statement:
Renewable Energy
Facilities (March 2020)

This position statement has been prepared by the WAPC to outline the requirements to support the consistent consideration and provision of renewable energy facilities within Western Australia. The position statement seeks to:

- guide the establishment of renewable energy facilities to support the State Energy Transformation Strategy (March 2019)
- outline key planning and environmental considerations for the location, siting and design of renewable energy facilities
- promote the consistent consideration and assessment of renewable energy facilities
- facilitate appropriate development of renewable energy facilities while minimising any potential impact upon the environment, natural landscape, and urban areas
- encourage informed public engagement early in the renewable energy facility planning process.

The Strategy should include actions to:

- include the land use definition of 'Renewable energy facility' from the Position Statement.
- designate this use as discretionary ('A') use in appropriate zones and as a prohibited ('X') use in SCAs that protect significant landscapes.
- include provisions to guide location, setbacks, vegetation screening, and other development standards to address potential impacts.

Position Statement:
Special Residential
Zones (May 2021)

This position statement has been prepared by the WAPC to outline the intention to discontinue the special residential zone in local planning schemes. It also provides general guidance measures for subdivision, use and development in existing special residential zones. In addition to phasing out special residential zones, the position statement seeks to provide guidance for subdivision and development of existing special residential zoned land to protect the character and amenity of rural areas, minimise potential land use conflict between rural land uses and special residential zones and conserve vegetation and landform through appropriate lot sizes.

The Strategy should not provide for any new Special Residential zones under LPS6. An action should be included to zone the three existing Special Residential zones to alternative suitable zones under LPS6.

Position Statement:
Planning for Tourism
and Short-term Rental

The Position Statement provides guidance on the integration of tourism and short-term rental accommodation (STRA) into local planning frameworks. It seeks to balance the benefits of STRA with potential impacts on residential areas, ensuring a sustainable tourism industry while protecting local

The Strategy should identify suitable locations for tourism sites and different STRA types.

Accommodation
(November 2024)

communities. The policy outlines planning requirements for STRA, including zoning, land use permissibility and management measures, and recognises the importance of tourism as a key driver of local and regional economies.

The Strategy should include actions for LPS6 to:

- include a range of tourism, special use and mixed use zonings which allow tourism development and suitable permissibility of land uses to provide for a diverse tourism industry.
- include the land use definitions as set out in the Regulations for tourism and STRA as applicable.
- Prepare a local planning policy LPP to provide exemptions from development approval where suitable and on how discretion will be exercised for Tourism and Unhosted STRA.

DWELLINGUP COMMUNITY HALL



2.6 Other relevant State or regional strategies, plans and policies

Other State or regional strategies, plans and policies that have relevance to and implications for the local planning strategy are outlined in Table 5.

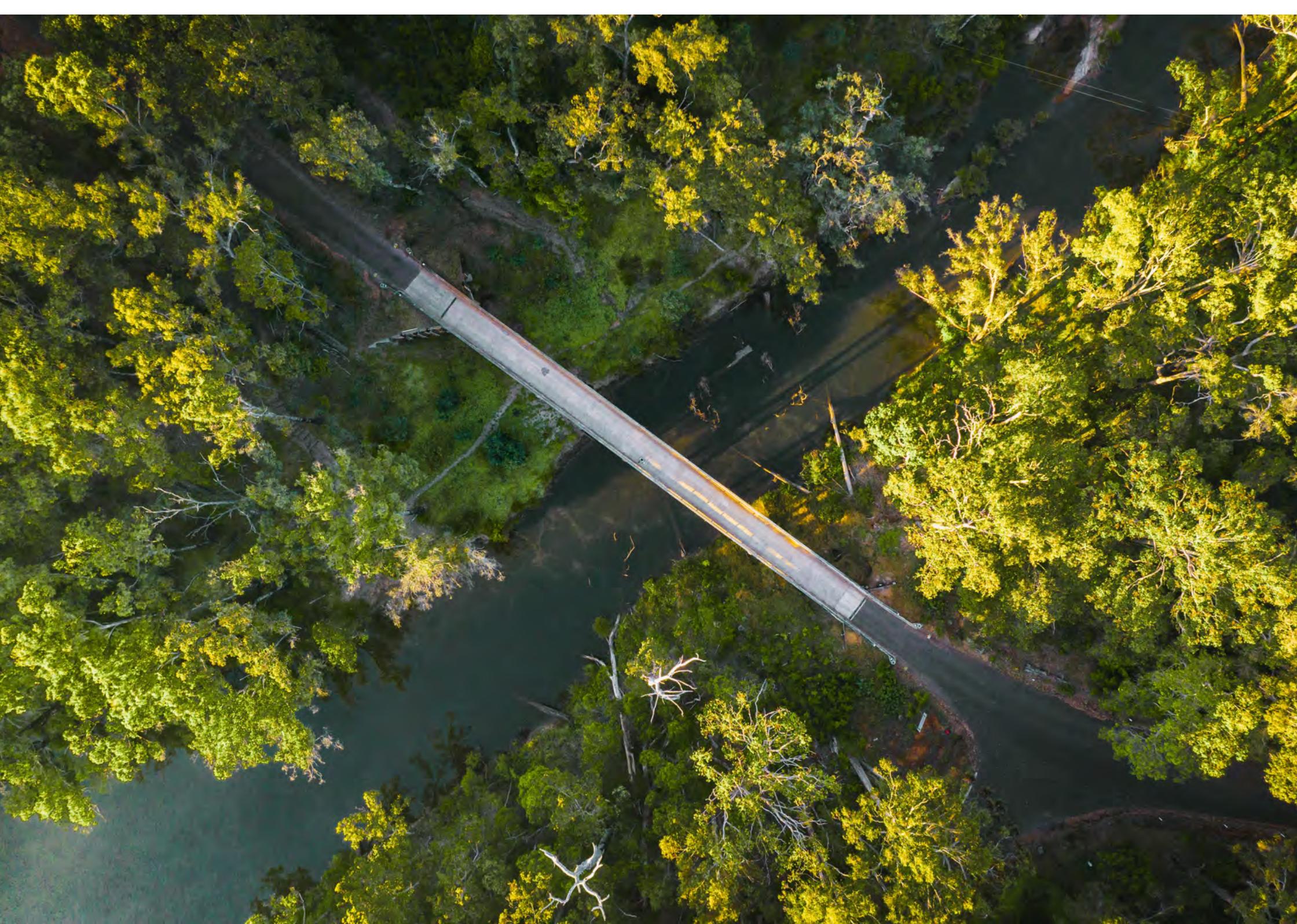
Table 5: Other relevant State or regional strategies, plans and policies and local planning strategy implications and responses

Strategy, plan, policy	Date approved	Purpose	Local Planning Strategy Implications and Responses
Western Australian Climate Policy	November 2020	<p>The Western Australian Climate Policy sets out the State Government’s plan for a climate resilient community and a prosperous low carbon future. The policy underscores a commitment to adapting to climate change and working with all sectors of the economy to achieve net zero greenhouse gas emissions by 2050. The policy sets out the high level priorities the State Government will implement to support a more climate resilient community. The approach to climate adaptation recognises exposure to climate impacts, the diversity of the regions and the existing capability to manage and adapt to climate change. The policy outlines actions to guide the response by business, the community, local governments and State Government agencies to develop well informed, timely and practical adaptation responses.</p>	<p>The Strategy should be aligned to the broad Policy outcomes as relevant to land use planning in the Shire including:</p> <ul style="list-style-type: none"> • provision for a comprehensive public transport system and transit oriented urban design including compact, mixed use neighbourhoods, walkable streets and cycling infrastructure to encourage active transport and reduced reliance on private cars. • actions to include provisions in LPS6 relating to energy efficient buildings and renewable energy infrastructure within new growth areas such as rooftop solar systems, microgrids and community battery systems. • actions to provide discretion and suitable provisions in LPS6 for ‘Renewable energy facilities’ and ‘Battery storage facilities’ in suitable locations. • actions for LPS6 to include provisions to protect and enhance natural areas, restore degraded land and increasing tree canopy coverage. • actions to include SCAs for bushfire, flooding and coastal hazards in LPS6 to enhance community resilience to the impacts of climate change.

Government Sewerage Policy September 2019

The Government of Western Australia's Government Sewerage Policy provides guidance for planning, development and the installation of sewage infrastructure to protect public health and the environment. The policy emphasises the importance of reticulated sewerage in urban and industrial areas, discouraging the use of onsite sewage disposal systems in areas where environmental risks are significant. It specifies that new developments within sewerage sensitive areas, such as the Peel Harvey Catchment, must be connected to reticulated sewerage to prevent nutrient discharge into water bodies. The policy also outlines the need for wastewater treatment to comply with environmental standards and encourages strategic planning for infrastructure provision to support growth sustainably

The Strategy should identify key sewerage infrastructure, sewage sensitive areas and relevant environmental details including soil types and water resource areas. It should include actions for a general requirement to connect new urban and industrial developments to reticulated sewerage and where the Policy allows consideration of onsite sewage disposal the criteria for this including site requirements, separation requirements from groundwater and water resources and the type of system required.



3 Local Planning Context

3.1 Strategic Community Plan

The Shire's Strategic Community Plan, titled Plan for the Future Council Plan 1 July 2023 to 30 June 2033, was adopted on 22 June 2023 and last reviewed on 24 July 2025. Key themes and outcomes which are relevant to land use planning are outlined in Table 6.

Figure 2: Shire of Murray Strategic Community Plan themes and outcomes



Table 6 – Shire of Murray Strategic Community Plan summary and local planning implications and responses

Themes	Outcomes	Local Planning Strategy Implications and Responses
<p>People</p> <p>Our community enjoys excellent health, wellbeing and quality of life.</p>	<p>Outcome 1: A safe community.</p>	<p>The Strategy should incorporate planning principles that enhance community safety through thoughtful urban design, appropriate zoning and infrastructure improvements. This includes promoting Crime Prevention Through Environmental Design principles and clear provisions to address bush fire, flood and coastal hazards.</p>
	<p>Outcome 2: A diverse, socially connected and cohesive community.</p>	<p>The Strategy should facilitate diverse housing options, mixed-use development and community hubs that encourage social interaction and inclusivity, including support for accessible public spaces, community precincts and recreational areas that promote community connection and foster a sense of belonging.</p>
	<p>Outcome 3: An active and healthy community.</p>	<p>The Strategy should prioritise access to parks, sporting facilities and active transport to encourage healthy lifestyles. It should facilitate the walkable neighbourhoods, cycle networks and integration of natural environments for outdoor recreation.</p>
<p>Planet</p> <p>Our natural environment is cared for and appreciated.</p>	<p>Outcome 4: The ecosystem is managed sustainably for the benefit of current and future generations.</p>	<p>The Strategy should embed environmental protection measures including the protection and restoration of wetland, waterway, native vegetation areas and ecological corridors.</p>
	<p>Outcome 5. Shared responsibility for combating climate change.</p>	<p>The Strategy should support climate-responsive urban planning by encouraging sustainable building design, energy-efficient infrastructure and low-impact development patterns. Land use policies should promote renewable energy projects, sustainable transport options and measures to reduce urban heat islands.</p>

Outcome 6. A resilient community equipped to respond to natural disasters and other emergencies.

The Strategy should incorporate risk management and resilience planning to address potential bushfire, flooding and coastal hazards, including ensuring appropriate land use zoning in risk areas and building standards to assist with disaster resilience.

Place

Our rural charm is preserved while we grow by embracing innovative urban design ideas.

Outcome 7. Population growth is being managed responsibly and sustainably.

The Strategy should guide future development in a way that balances growth with efficient infrastructure use and environmental sustainability. It should designate growth areas focussing on existing towns and settlements to maximises the efficient use of existing infrastructure and services, reduce environmental impacts, retain rural land and natural landscapes, and foster vibrant, sustainable communities with a strong sense of place.

Outcome 8. Our towns offer vibrant and attractive spaces, with retained rural charm.

The Strategy should support design guidelines that retain and enhance the unique character of the Shire's towns while accommodating growth. This includes promoting streetscape enhancements, heritage conservation and new development that respects the Shire's rural charm and identity.

Outcome 9. Built heritage is respected and celebrated.

The Strategy should identify significant heritage places and areas, seek to incorporate heritage protection measures into LPS6 and promote the integration of heritage assets within new developments to maintain the area's unique character and identity.

Outcome 10. It is easy to move around the Shire safely and sustainably.

The Strategy should prioritise a well-connected and accessible transport network integrated with land use, including compact, mixed use development; pedestrian-friendly streets; cycling infrastructure and improved public transport options including at its heart the Mandurah to Pinjarra high priority transit corridor. It should encourage transit oriented development and ensure road planning aligns with growth areas to facilitate traffic flow and safety.

Prosperity

Our economy is thriving with diverse business, tourism and job opportunities.

Outcome 11. Sustainable economic growth with decent work for all.

The Strategy should support the diversification of the local economy which is heavily focussed on mining and mining based manufacturing by identifying sufficient land and flexibility for business establishment and expansion especially in areas where the Shire has a competitive advantage including industry development, agricultural productivity and innovation; equine and tourism opportunities.

Outcome 12. Access to quality education and life-long learning for all.

The Strategy should identify and make provision in future stages of planning for allocation of government and private educational facilities. It should also provide flexibility for research facilities suitable locations.

Outcome 13. Visitor numbers are growing.

The Strategy should encourage tourism friendly development by supporting short stay accommodation options in appropriate locations, enhancing public amenities and protecting natural attractions. Planning should prioritise infrastructure that supports sustainable tourism while preserving the local character and environment.

Performance

Our can-do attitude helps us to achieve desired outcomes and continuously strive for excellence.

Outcome 14. Capable and accountable leadership and governance

The Strategy should align with state and regional planning frameworks, ensuring transparency, accountability, and community engagement in decision making processes. It should include mechanisms for monitoring and reporting progress on planning initiatives.

Outcome 15. The Shire actively listens and responds to community needs

The Strategy preparation should incorporate a comprehensive and robust consultation process consistent with the *Planning and Development Local Planning Schemes) Regulations* (Regulations). It should also provide mechanisms for periodic review and amendments if needed based on changing community priorities and emerging trends.

3.2 Previous Local Planning Strategy

There is no previous Strategy.

3.3 Local Planning Scheme

Local Planning Scheme No.4 (LPS4), initially adopted in 1989 is the primary document for controlling land use and development with to align with this Strategy. A new Local Planning Scheme No.6 (LPS6) is being prepared to align with the Strategy.

3.4 Local Planning Policies

Local Planning Policies (LPPs) can be prepared by the Shire in accordance with Division 2 of Schedule 2 of the Regulations in respect of a particular class or classes of matters specified in the policy and may apply to the whole Scheme area or part of the Scheme area. An overview of the Shire's LPPs and implications for the Strategy are provided in Table 7.



Table 7: Local planning policies and local planning strategy implications and responses

Name of Local Planning Policy	Date of Adoption/Last Amendment	Purpose of Local Planning Policy	Local Planning Strategy Implications and Responses
Ancillary Dwellings within Rural Residential Zones	November 2022	The policy provides guidance for the development of ancillary dwellings within rural residential areas of the Shire. Given the greater lot sizes in these areas the Policy provides flexibility for larger ancillary dwellings than can be accommodated within urban areas whilst ensuring that the ancillary dwelling remains subordinate and related to the main dwelling. The Policy also includes a range of development requirements to ensure that ancillary dwellings do not detract from the productive use of rural land and do not adversely impact on the landscape character, amenity and environmental values of the Shire's rural areas.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
Barragup Furnissdale Activity Centre	December 2014	The policy establishes a framework to guide the form of development within the Centre. It seeks to guide land use, urban design and infrastructure provision to ensure a comprehensively planned centre that provides an attractive and functional western gateway to the Shire; an appropriate interface to protect the rural residential character and amenity of adjacent land; a main street based neighbourhood activity centre to provide daily to weekly goods and services to the growing urban community in Furnissdale and highway commercial uses to support the broader community.	The policy should be revoked and replaced with a Precinct Structure Plan.

Biodiversity Protection	September 2016	The policy aims to protect, maintain and enhance the viability of habitats, ecological communities, flora and fauna and biodiversity within the Shire. The Policy includes a presumption against further clearing of natural areas sets out requirements for planning proposals that involve land that contains natural areas or are located within 100m of natural areas.	The Strategy should include actions for LPS6 to require development approval for the clearing of native vegetation and for provisions to protect, maintain and enhance local natural areas. The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
Boating Facilities and Moorings	August 2023	The policy guides the development of boating facilities and moorings within the Shire's canal system to ensure safe and orderly development within the waterways. It sets out the objectives and requirements under which the Shire will support boating facilities and moorings within each of the five canal estates.	The Strategy should include an action for a Canals SCA that includes provisions requiring development approval for all development on lots adjoining a canal and within the canal waters and setting out suitable development provisions.
Canal Walls – Stage One Yunderup Canals	June 2016	The policy sets out the development objectives and requirements for canal walls to ensure compatible design of canal walls, their structural integrity and long-term functionality.	The Strategy should include an action for a Canals SCA that includes provisions requiring development approval for all development on lots adjoining a canal and within the canal waters and setting out suitable development provisions.
Caravan Park, Camping Grounds, Park Home Park and Retirement Villages	June 2009	The policy provides development objectives and provisions for caravan parks, camping grounds, park home parks and retirement villages to ensure they meet the needs of residents and visitors. It focuses on providing quality accommodation, preservation of amenity and ensuring they do not adversely impact on community safety or the environment.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
Child Care Services	June 2022	The policy provides guidance on the location, design and operation of child care facilities to ensure they are accessible, safe and compatible with surrounding land uses.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

Commercial Parking	Vehicle	November 2022	The policy outlines the requirements for parking commercial vehicles in association with the residential use of land. It aims to balance the needs of vehicle owners with the preservation of amenity of the area.	<p>The Strategy should include an action for LPS6 to include definition of Commercial vehicle parking and to require development approval for this.</p> <p>The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.</p>
Domestic Outbuildings		November 2022	The policy provides objectives and requirements for the development and use of domestic outbuildings to ensure they are appropriately scaled and designed to complement the primary residence and maintain the amenity of the area.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
General Provisions – Building Setbacks, Car Parking Standards	Development	September 1995	The policy establishes standards for building setbacks and car parking requirements across the Shire to ensure safe, functional, and aesthetically pleasing developments. It balances development needs with environmental protection, traffic safety, and neighbourhood amenity.	The policy should be revoked and the Strategy should include an action requiring suitable development standards to be included in LPS6.
Heritage Places		April 2012	The policy aims to conserve, protect and enhance the cultural heritage significance of heritage places and heritage areas within the Shire. It provides guidelines for the conservation, restoration, and adaptive reuse of heritage places to ensure their long term conservation and adaptive reuse while allowing for compatible development.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
Home Based Business		September 2021	The policy provides guidance on the operation of businesses from residential properties to ensure they are compatible with the residential character and amenity of the area. It supports economic opportunities while addressing potential impacts such as noise, traffic, and parking.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

Horticultural Development within Peel Harvey Coastal Plain Catchment

July 2016

The policy is designed to guide the sustainable development of horticulture within the Shire while addressing the potential environmental impacts of such activities, particularly nutrient impacts on the Shire's waterways. The policy provides clear guidance on best practice land management for horticultural activities to mitigate these risks and ensure that further degradation of the Shire's waterways is minimised.

The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

Keeping of Livestock in Rural Residential Areas

March 2017

The policy aims to provide clear guidance for the keeping of livestock in rural residential areas. The Policy sets out guidelines for animal numbers, housing, management practices and the maintenance of health and safety standards. It ensures that livestock can be kept in a way that protects the environment, prevents nuisances such as noise and odour and preserves the character of rural residential areas.

The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

Main Roads Third Party Advertising Signs

March 2015

The policy seeks to manage the proliferation of third-party advertising signs which if not carefully controlled, can lead to significant traffic safety issues, environmental and visual amenity impacts. The Policy provides a framework for the installation of a limited number of high-quality, consistently designed advertising signs along land adjacent to main roads, ensuring these signs are positioned in a manner that minimises their impact on road safety, the environment and the aesthetics of the area.

The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

Marginata Crescent Heritage Area

April 2012

The policy seeks to protect and enhance the unique heritage character of the Marginata Crescent precinct in Dwellingup. The Policy provides guidance for development and redevelopment to ensure that changes respect the area's historical and architectural significance. It includes specific

The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

		design principles to maintain the precinct's visual and cultural integrity.	
Mosquitoes	July 2017	The policy aims to mitigate the impact of mosquito populations on residents and visitors in the Shire by providing guidance for development in mosquito-prone areas. It outlines measures to minimise exposure to mosquito borne diseases, such as designing developments to reduce mosquito breeding habitats and implementing site-specific management strategies.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
Natural Landscape in Urban Areas	February 2018	The policy aims to protect, enhance and integrate natural landscapes within urban developments within the Shire. It provides guidance for retaining native vegetation, incorporating natural features, and promoting biodiversity conservation.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
Peel Business Park Design Guidelines	June 2021	The policy provides a framework to guide the development within the Peel Business Park as a high quality industrial hub. The Policy focuses on achieving cohesive, sustainable, and visually appealing development. It outlines design principles for built form, landscaping, infrastructure, and sustainability, ensuring that developments align with the strategic purpose of the area as a modern business and innovation precinct.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
Pinjarra Activity Centre	November 2022	The policy guides development within the Pinjarra town centre to create a vibrant, functional, and attractive activity hub. The Policy promotes diverse land uses, including retail, commercial, residential, and community facilities, while emphasising pedestrian-friendly streetscapes, high-quality built form, and the retention of Pinjarra's unique historical and environmental character.	The policy should be revoked and replaced with the Pinjarra Precinct Structure Plan.

Pinjarra Industrial Area Design Guidelines May 2008

The policy establishes clear design and development standards for industrial developments within the new Pinjarra Industrial Area. Its purpose is to ensure that industrial developments achieve high-quality built form, functionality, and sustainability while respecting the character of the surrounding environment. The policy includes requirements for site layout, building design, landscaping, signage, and access, with the aim of fostering a cohesive and visually appealing industrial precinct that supports local economic growth.

The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

Pinjarra Light Industrial Area June 2009

The policy aims to guide development within the original Pinjarra Light Industrial Area to ensure it meets functional, environmental, and aesthetic standards. The Policy establishes requirements for land use, site planning, built form, landscaping, and access, aiming to create a cohesive industrial precinct.

The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

Pinjarra Town Centre Public Art February 2018

The policy aims to enhance the cultural, historical, and aesthetic identity of the Pinjarra town centre by promoting the integration of public art into developments. The Policy seeks to ensure public art contributes to a sense of place, reflects the unique heritage and character of Pinjarra. It provides guidelines for developers to incorporate or contribute to public art as part of new projects.

The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

Relocated Dwellings October 2011

The policy provides guidance on the relocation and reuse of existing dwellings within the Shire to ensure such developments meet aesthetic, safety, and environmental standards. The Policy aims to maintain the local character, protect residential amenity, and ensure relocated dwellings meet with relevant building and planning regulations. It

The Strategy should include an action for suitable provisions under LPS6 to ensure relocated dwellings require development approval.

			emphasises that relocated dwellings must be of a standard that complements the surrounding area and do not negatively impact the visual amenity or property values of the locality.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
General Development Requirements for Properties Abutting an Artificial Canal Waterway	February 2017		The policy is designed to provide development guidelines for properties that border artificial canal waterways. The Policy aims to ensure visual amenity and the open natured character of the canal frontage is not compromised.	The Strategy should include an action for LPS6 to include a Canals SCA that includes provisions requiring development approval for all development on lots adjoining a canal and within the canal waters and setting out suitable development provisions.
Rural Dwellings Workers'	October 2010		The policy aims to manage the development of dwellings intended for workers employed on rural properties. The policy aims to ensure that rural worker dwellings are appropriately located and designed to support the agricultural or rural business activities on the property, without compromising the rural character or environmental values of the area. It sets out the conditions under which rural worker dwellings may be approved, including factors such as the size of the property, the nature of the farming operation and the necessity for additional accommodation to support the business.	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
Sea Containers	November 2022		The policy aims to manage the placement of sea containers, seeking to ensure that where intended to be used they are appropriately located, screened and upgraded to ensure that they do not adversely impact on the amenity, streetscape, character and environmental attributes of an area.	The Strategy should include an action for LPS6 to ensure sea containers require development approval. The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.
Signs	November 2012		The policy provides a framework for the regulation of signage within the Shire to ensure that they are visually compatible with their surroundings and maintain a high standard of aesthetic quality. The Policy aims to prevent the proliferation of poorly	The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

designed or excessive signage that could detract from the Shire's character, landscape, or heritage, while still allowing for appropriate advertising opportunities. It outlines the types of signs allowed, the criteria for approval and the conditions under which signs should be installed and maintained to ensure that they do not pose safety risks or visual clutter.

Unhosted Short Term Rental Accommodation (draft) April 2025

The provides a general exemption from development approval for new Unhosted Short Term Rental Accommodation (STRA) outside Dwellingup. In Dwellingup, the policy seeks to contain further STRA to the town centre core to limit further conversion of dwellings occupied by permanent residents. The policy the sets outs assessment requirements to guide decision making for new STRA to protect amenity.

The policy is consistent with the WAPC Position Statement: Planning for Tourism and Short-Term Rental Accommodation' and 'Planning Bulletin 115/2024' and complements an associated amendment to LPS4 (Amendment No. 239).

Vegetation Management June 2009

The policy sets out the requirements for the retention of vegetation in Special Residential and Rural Residential areas and for revegetation at the time of subdivision.

The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.

Water Sensitive Urban Design December 2011

The policy aims to incorporate water management solutions that protect and enhance water quality, manage stormwater and reduce the impacts of urbanisation on the local hydrology and environment. The policy encourages the integration of innovative, water-efficient design principles into new developments, ensuring that stormwater is treated at the source, mitigating flood risks and preserving the health of local watercourses, wetlands and the Peel-Harvey Estuary.

The policy should be reviewed following the adoption of the Strategy and LPS6 to ensure alignment.



3.5 Structure Plans

Structure plans (including standard structure plans and precinct structure plans) can be prepared in accordance with Division 2 of Schedule 2 of the Regulations for land within the Scheme area to provide the basis for zoning and subdivision of land. Precinct structure plans can also be used to inform built form outcomes and the design of public open spaces. An overview of the structure plans within the Shire, and implications for the Strategy are provided in Table 8.

Table 8: Structure plans and local planning strategy implications and responses

Name of Structure Plan	Date of WAPC Approval/Last Amendment	Purpose of Structure Plan	Local Planning Strategy Implications and Responses
Dwellingup			
Dwellingup	April 2012 Date of Expiry: 19 October 2025	To establish a broad framework to guide the preparation of amendments to the Peel Region Scheme, Local Planning Scheme and local structure plans.	The Structure Plan expires in 2025. It should be reviewed to better reflect the strategic intent of this Strategy. A draft new structure plan has been prepared for consideration by the WAPC.
Furnissdale			
Furnissdale West	19 October 2016 Date of Expiry: 19 October 2026	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan expires in 2026. It should be reviewed to better reflect the strategic intent of this Strategy.

Lot 91 Paull Street & Lot 157 Ronlyn Road Furnissdale	27 June 2012 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan expires in 2025. Subdivision has not commenced. It should be reviewed to better reflect the strategic intent of this Strategy.
---	---	---	---

Nambeelup

Nambeelup Industrial Area District Structure Plan	4 April 2016 Date of Expiry: 4 April 2026	To provide a broad framework for the subdivision and zoning of the Nambeelup Industrial Area including guidance on planning processes including amendments to the Peel region Scheme, local planning scheme and the preparation of local structure plans.	Limited subdivision and development has occurred within the structure plan area. The Structure Plan should be retained.
---	--	---	---

Lot 600 Lakes Road Nambeelup	18 March 2019 Date of Expiry: 18 March 2029	To coordinate future subdivision and zoning of industrial land within the structure plan area.	Limited subdivision and development has occurred within the structure plan area. The Structure Plan should be retained.
------------------------------	--	--	---

Golden Lake View Lot 223, 243 & 245-248 lakes Road Nambeelup	28 August 2019 Date of Expiry: 27 August 2029	To coordinate future subdivision and zoning of rural residential land within the structure plan area.	No rural residential subdivision or development has occurred within the structure plan area. The Structure Plan should be retained.
--	--	---	---

Lot 1221 Lakes Road & Lot 1400 Paterson Road Nambeelup	2 January 2024 Expires: 2 January 2034	To coordinate future subdivision and zoning of industrial land within the structure plan area.	No industrial subdivision or development has occurred within the structure plan area. The Structure Plan should be retained.
--	---	--	--

Lots 21-23 & Part Lot 24 Lakes Road, Nambeelup	Pre 2015 Date of Expiry: 19 October 2025	To coordinate future subdivision of special rural land within the structure plan area.	The structure plan area has been substantially subdivided or approved for subdivision. A 10 year extension to the period which the structure plan has effect has been supported by the Shire.
--	---	--	---

North Dandalup

North Townsite	Dandalup	13 December 2011 Date of Expiry: 19 October 2025	To identify broad land use categories to guide the preparation of amendments to the Peel Region Scheme, local planning scheme and local structure plans for the expansion of the townsite.	The Structure Plan expires in 2025. It should be reviewed to better reflect the strategic intent of this Strategy.
Lot 1 Lakes Road & Lot 2 Shanns Road, North Dandalup		29 March 2017 Date of Expiry: 28 March 2027	To coordinate future subdivision and zoning of rural residential land within the structure plan area.	Limited subdivision and development has occurred within the structure plan area. The Structure Plan should be retained.
Lot A40 McMahan Road & Lot 100 Lakes Road, North Dandalup (excludes Lot B38 Lakes Road)		20 September 2011 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of rural residential land within the structure plan area.	The Structure Plan expires in 2025. The structure plan has been implemented and is no longer required.
Lot B38 Lakes Road, North Dandalup		18 March 2015 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of rural residential land within the structure plan area.	The Structure Plan expires in 2025. The structure plan area has been substantially subdivided. A 10 year extension to the period which the structure plan has effect has been supported by the Shire.
Lot 51-60 Avoca Retreat, North Dandalup		8 October 2015 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of rural residential land within the structure plan area.	The Structure Plan expires in 2025. The structure plan area has been substantially subdivided. A 10 year extension to the period which the structure plan has effect has been supported by the Shire.
Dandalup Ranges - Lot A28 Shanns Road		3 September 2013 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of rural residential land within the structure plan area.	The Structure Plan expires in 2025. Subdivision of the structure plan area has recently commenced and an application for subdivision for the remaining portion of the area lodged. A request to extend the approval period of the structure plan for a further 10 years has recently supported by the Shire.
Murray Location 491 and portion of Murray		Pre 2015	To coordinate future subdivision of rural residential land within the structure plan area.	The structure plan area has been partly subdivided. Structure plan forms part of LPS4. Do not include within LPS6 however

Location 643 Hines Date of Expiry: 19
Road (HLP2) October 2025

include provision in LPS6 for minimum lot area of 4ha consistent with prevailing lot sizes in the area.

Lot 1 Murray Location Pre 2015
496 Scarp Road (HLP3) Date of Expiry: 19
October 2025

To coordinate future subdivision of rural residential land within the structure plan area.

The structure plan area has been subdivided. Structure plan can lapse, however include provision in LPS6 for minimum lot area of 4ha consistent with prevailing lot sizes in the area.

Lot 2 Hines Road Pre 2015
(HLP4) Date of Expiry: 19
October 2025

To coordinate future subdivision of rural residential land within the structure plan area.

The structure plan area has been subdivided. Structure plan can lapse, however include provision in LPS6 for minimum lot area of 4ha consistent with prevailing lot sizes in the area.

Lot 1362 Scarp Road Pre 2015
(HLP5) Date of Expiry: 19
October 2025

To coordinate future subdivision of rural residential land within the structure plan area.

The structure plan area has been subdivided. Structure plan can lapse, however include provision in LPS6 for minimum lot area of 4ha consistent with prevailing lot sizes in the area.

North Yunderup

Lot 803 North Yunderup 27 July 2016
Road, North Yunderup Date of Expiry: 27 July
2026

To coordinate future subdivision and zoning of urban land within the structure plan area.

The Structure Plan expires in 2026. It should be reviewed to better reflect the strategic intent of this Strategy.

Pinjarra

Draft Pinjarra District July 2025 (endorsed by
Structure Plan Council)

To guide planning processes including amendments to the Peel region Scheme and local planning scheme as well as direction on the preparation of a precinct structure plan and local structure plans to guide future subdivision and development of the portion of Pinjarra within the structure plan area.

The draft structure plan includes a range of recommended zoning changes which should be reflected in actions under the Strategy and new LPS6.

Draft Pinjarra Precinct Structure Plan	July 2025 (Endorsed by Council)	To coordinate future subdivision, zoning and development of land within the Pinjarra Secondary Centre.	The Strategy requires a precinct structure plan for the Pinjarra Secondary Centre.
Pinjarra Town Centre Revitalisation Plan and Draft Activity Centre Plan	June 2017 (Endorsed by Council)	To coordinate future subdivision, zoning and development of land within the Pinjarra Secondary Centre.	This draft structure plan has been superseded by the draft Pinjarra District Structure Plan and Pinjarra Precinct Structure Plan.
Thomas Street, Pinjarra	5 April 2019 Date of Expiry: 5 April 2029	To coordinate future subdivision and zoning of urban land within the structure plan area.	No urban subdivision or development has occurred within the structure plan area. The Structure Plan should be retained and then at its expiration reviewed to better reflect the strategic intent of this Strategy.
North Pinjarra	8 August 2025 Date of Expiry: 19 October 2030	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan expires in 2025. Subdivision approval of the first stage has been granted however not commenced. It should be reviewed to better reflect the strategic intent of this Strategy and the Pinjarra District Structure Plan.
Lot 401 & 9001 Hampton Road, Pinjarra	9 May 2017 Date of Expiry: 9 May 2027	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan has been implemented and is due to expire in October 2025. Normalise this area under LPS6.
Lot 51 McLarty Road, Pinjarra	11 September 2023 Date of Expiry: 11 September 2033	To coordinate future subdivision and zoning of urban land within the structure plan area.	No subdivision or development has occurred within the structure plan area. The Structure Plan should be retained.
Lot 42 Hampton Road, Pinjarra	27 November 2009 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan has been implemented and is due to expire in October 2025. Normalise this area under LPS6.

Lot 43 Hampton Road and Lot 50 McLarty Road, Pinjarra	9 March 2007 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan has been implemented and is due to expire in October 2025. Normalise this area under LPS6.
Lots 1 & 2 Pinjarra Road, Pinjarra	16 November 2012 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of industrial land within the structure plan area.	The Structure Plan expires in 2025. Portion of the structure plan area has been subdivided and developed. It should be reviewed to better reflect the strategic intent of this Strategy. A policy should be prepared to address the built form requirements included in the current structure plan.
Lots 11-14, 16 & 123 Bedingfeld Road, Pinjarra	6 February 2015 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan expires in 2025. No subdivision or development has occurred to date. It should be reviewed to better reflect the strategic intent of this Strategy and the Pinjarra District Structure Plan.
Lots 38 & 39 Hampton Road, Pinjarra	3 June 2009 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan has been implemented and is due to expire in October 2025. Normalise this area under LPS6.
Kwel Road, Pinjarra	19 August 2020 Date of Expiry: 30 June 2030	To coordinate future subdivision and zoning of urban land within the structure plan area.	No subdivision or development has occurred within the structure plan area. The Structure Plan should be retained.
Lot 332 Moores Road, Lot 328 Moores Road & Pt Lot 1482 Pollard Street, Pinjarra	30 August 2006 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of industrial land within the structure plan area.	The Structure Plan expires in 2025. The structure plan area has been substantially subdivided. A 10 year extension to the period which the structure plan has effect has been supported by the Shire.
Lot 602 Beacham Road, Pinjarra	5 June 2014 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of industrial land within the structure plan area.	The Structure Plan expires in 2025. No subdivision has been undertaken within the structure plan area. It should be reviewed to better reflect the strategic intent of this Strategy.

Lot 9005 Wisteria Crescent & Lot 304 Redgum Road, Pinjarra	7 April 2014 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan expires in 2025. It should be reviewed to better reflect the strategic intent of this Strategy and the Pinjarra District Structure Plan.
Lots 78-83 Pinjarra Road, Boys Road, Wilson Road & Sutton Street, Pinjarra	25 August 2005 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan has been implemented and is due to expire in October 2025. Normalise this area under LPS6.
Murray River Country Estate, Pinjarra	26 November 2015 Date of Expiry: 26 November 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan expires in 2025. Portion of the structure plan area has been developed and this portion should be normalised under LPS6. The remaining area yet to be subdivided should be reviewed to better reflect the strategic intent of this Strategy.

Point Grey

Point Grey	28 June 2011 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	A revised Structure Plan has been submitted for consideration and has not been supported by the Shire. The Strategy proposes a tourism-based Planning Area for Point Grey and includes an action to seek the rezoning of the land to 'Rural' under the PRS and 'Tourism' under LPS6. The Structure Plan should be revoked upon the proposed Tourism zone coming into effect.
------------	---	---	--

Ravenswood

Ravenswood West	16 July 2013 Date of Expiry: 19 October 2025	To coordinate future subdivision, development and zoning of urban and district centre land within the structure plan area.	The Structure Plan expires in 2025. Portion of the structure plan area has been subdivided and developed. This portion should be normalised in LPS6. The residential portion yet to be subdivided should be reviewed to better reflect the strategic intent of this Strategy and the portion affected by the district centre should be included in a new precinct structure plan for the overall district centre.
-----------------	---	--	---

Ravenswood East	23 February 2023 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan expires in 2025. The structure plan area has either been substantially subdivided or approved for subdivision. A 10 year extension of the period which the structure plan has effect has been supported by the Shire. The developed area should be normalised in LPS6.
Lot 102 Rodoreda Crescent, Ravenswood	9 March 2005 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan has been implemented and is due to expire in October 2025. Normalise this area under LPS6.
Lot 9001 Lloyd Avenue, Ravenswood	28 August 2007 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan has been implemented and is due to expire in October 2025. Normalise this area under LPS6.

South Yunderup

Austin Lakes	11 July 2025 Date of Expiry: 19 October 2027	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan has recently received a two year extension to enable the and the landowner to prepare a new Structure Plan. A substantial portion of the structure plan area is yet to be subdivided. The Structure Plan contains built form requirements. The Structure Plan should be reviewed to better reflect the strategic intent of this Strategy. A policy should be prepared to address the built form requirements.
Lot 14 South Yunderup Road, corner Willow Gardens, South Yunderup	29 April 2008 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan has been implemented and is due to expire in October 2025. Normalise this area under LPS6.
Lots 1, 2 & 49 Banksia Terrace, South Yunderup	26 July 2011 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan contains both zoning and built form requirements and is due to expire in October 2025. The structure plan area has been subdivided. Normalise this area

under LPS6 and prepare a policy to address the built form requirements.

Lot 14 Murray River Drive, South Yunderup	29 November 2011 Date of Expiry: 19 October 2025	To coordinate future subdivision and zoning of urban land within the structure plan area.	The Structure Plan contains both zoning and built form requirements and is due to expire in October 2025. The structure plan area has been subdivided. Normalise this area under LPS6 and prepare a policy to address the built form requirements.
---	---	---	--

Stake Hill

Lot 530 Lakes Road, Stake Hill	3 December 2019 Expires 3 December 2029	To coordinate future subdivision and zoning of industrial land within the structure plan area.	No industrial subdivision or development has occurred within the structure plan area. The Structure Plan should be retained.
--------------------------------	--	--	--

West Pinjarra

Greenlands Road, West Pinjarra	1 March 2017 Date of Expiry: 1 March 2027	To coordinate future subdivision and zoning of rural residential land within the structure plan area.	A substantial portion of the structure plan area is yet to be subdivided. The structure plan should be retained.
--------------------------------	--	---	--

Lot 442 Moores Road, West Pinjarra (SR41)	12 December 2023 Expires 12 December 2033	To coordinate future subdivision and zoning of rural residential land within the structure plan area.	Subdivision of land within the structure plan area is underway. Upon subdivision taking place the structure plan can be revoked.
---	--	---	--

Lot 72 Moores Road, West Pinjarra (SR14)	Pre 2015 Date of Expiry: 19 October 2025	To coordinate subdivision of rural residential land within the structure plan area.	Structure plan area has been subdivided with lot sizes ranging from 3.1ha to 4.6ha. Structure plan can be revoked, however include provision in LPS6 for minimum lot area of 2ha consistent with SR41 and prevailing lot sizes in the area.
--	---	---	---

Lot 601 Beacham Road, West Pinjarra (SR25)	Pre 2015 Date of Expiry: 19 October 2025	To coordinate subdivision of rural residential land within the structure plan area.	Structure plan area has been subdivided. Structure plan can be revoked, however include provision in LPS6 for minimum lot area of 2ha consistent with prevailing lot sizes in the area.
Land zoned Special Rural in LPS 4 with frontage to Hanover Way, James Eden Drive, San Simeon Way and Zaruma Way, and Lots 190-193 and Part Lot 9000 Curtis Lane, West Pinjarra (SR28)	Pre 2015 Date of Expiry: 19 October 2025	To coordinate subdivision of rural residential land within the structure plan area.	Structure plan area has been substantially subdivided. Structure plan can be revoked, however include provision in LPS6 for minimum lot area of 2ha consistent with prevailing lot sizes in the area.



3.6 Other Relevant Strategies, Plans and Policies

An overview of the other relevant strategies, plans or policies relevant to the Shire, and implications for the Strategy are provided in Table 9.

Table 9: Other relevant strategies, plans and policies and local planning strategy implications and responses

Name of strategy, plan, policy	Date Approved	Purpose	Local Planning Strategy Implications and Responses
Coastal Hazard Risk Management and Adaptation Plan	June 2024	The purpose of the Plan is to identify and address the risks posed by coastal erosion and inundation within the Shire of Murray. It provides a framework for proactive management and adaptation strategies to protect coastal assets, infrastructure, and communities from the impacts of climate change and rising sea levels, ensuring long term resilience and sustainability.	The Strategy should identify areas that are vulnerable to coastal inundation and erosion, apply suitable zonings to vulnerable areas and include actions to: <ul style="list-style-type: none"> include a Coastal SCA in LPS6 that requires development approval for all proposed development, except where specifically exempt and includes suitable development provisions to address coastal hazards. Prepare a new coastal local planning policy to provide guidance on how the Shire will exercise discretion for development in vulnerable areas covered by the Coastal SCA.
Community Infrastructure Plan	September 2014	The Plan provides a comprehensive framework for Shire related community infrastructure needed to service the growing Shire population. The Plan will support the preparation of structure plans and a developer contribution arrangements for growing areas.	The Plan is currently being reviewed. Strategy should identify the key future community infrastructure needs to inform future stages of planning and include an action for LPS6 to include a Development Contribution Area SCA to enable equitable developer contributions towards community infrastructure.
Dwellingup Road Map	October 2021	The Road Map outlines a strategic vision and pathway for the sustainable growth and	The Strategy should provide scope for the growth of Dwellingup town by designating land for urban investigation

development of Dwellingup based on a diversified economy scenario. This focuses on significant tourism growth, while also focusing on developing arts, education, natural resource management and research industries, leading to a more diverse and resilient local economy that is adaptable to change. To achieve this vision the pathway framework seeks to enhance tourism and economic opportunities and community infrastructure while preserving the town's unique environmental and cultural values. Importantly it provides for the town to grow to provide a population that can support and sustain community infrastructure such as the local primary school; daily to weekly goods and services for the community; a local workforce to support the growing economy; and short stay accommodation options to support the growing tourism industry.

purposes and should include the investigation areas within a Planning Area which provides planning guidance and actions to support future growth. The Strategy should also include actions to prepare a new Dwellingup Precinct Structure Plan.

Economic Strategy	August 2018	<p>The Economic Strategy provides a strategic approach to fostering economic growth, diversification, and job creation within the Shire of Murray. It identifies key sectors for development including tourism and visitation; centres and place making; science and research; food and agri-business; arts, culture and events; energy and resources; and community building. It seeks to support local businesses, attract investment and ensure that economic development initiatives align with the Shire's broader planning and sustainability goals.</p>	<p>The Strategy should provide a suitable land use planning framework to support the economic Strategy objectives. It should identify and protect key employment areas and encourage economic diversification by designating sufficient land for a range of employment uses, provide land use flexibility for the target program areas, support home based businesses and ensure transport, infrastructure and place planning aligns with economic growth objectives.</p>
Environmental Sustainability Strategy	February 2024	<p>The Strategy aims to promote sustainable practices across the Shire by addressing key environmental challenges such as climate change, resource management and biodiversity conservation. It outlines actions to reduce environmental impacts,</p>	<p>The Strategy should integrate the principles of the Environmental Sustainability Strategy by embedding sustainability objectives into land use planning, encouraging energy efficient developments, active transport and protecting environmental assets.</p>

enhance natural ecosystems and support a sustainable future for the community.

Hills Landscape Rural Planning Precinct Plan February 2012

The Plan provides strategic direction for land use and development in the Shire's rural foothills and scarp areas, aiming to protect scenic landscapes, important local natural areas, support sustainable agriculture, and manage development pressures while maintaining rural character and environmental integrity.

The Strategy should prioritise sustainable agriculture in this area. No new areas should be proposed for rural residential development and the suitability of existing undeveloped areas should be reviewed. The Strategy should include actions for LPS6 to:

- Introduce a Significant Landscape SCA for the Darling Scarp.
- Include development provisions for land within 500 metres of identified scenic tourist routes which include design guidelines to enhance visual amenity including development setbacks, building design, visual buffers and landscaping provisions.

Local Strategy Biodiversity December 2013

The focuses on the protection, enhancement and management of the Shire's diverse local natural areas. It provides a framework for conserving native vegetation, improving ecological corridors, and promoting sustainable land use practices to ensure the long term health of the Shire's biodiversity.

The Strategy should identify local natural areas and biodiversity corridors and incorporate measures to protect and enhance these areas. This should include actions for LPS6 to include a specific requirement for development approval to clear native vegetation in local natural areas and provisions for the protection and restoration of local natural areas and key ecological areas.

Local Heritage Survey March 2020

The Local Heritage Survey provides an historical overview of the Shire and thematic matrix. It also documents the places of heritage significance to the local community. It will form the basis of places and areas to be included on the Scheme Heritage List.

The Strategy should identify places and areas of heritage significance and include actions to:

- Prepare and adopt a Heritage List under LPS6 based on the information in the Local Heritage Survey;
- Prepare local planning policies for the Heritage Areas identified in the Heritage List; and
- Review the Heritage Places Local Planning Policy based on the WAPC's Guidelines for Preparing a Local Planning Policy for Local Heritage.

<p>Nambeelup North Dandalup Local Rural Strategy</p>	<p>March 2012</p>	<p>The Strategy guides the sustainable development of rural land in the Nambeelup and North Dandalup areas, focusing on preserving agricultural productivity, protecting environmental assets, and supporting rural lifestyles while accommodating compatible development opportunities.</p>	<p>The Strategy should prioritise agricultural productivity for this area, although recognising the Nambeelup Industrial Area and Kerelup Planning Area. New rural-residential areas should be limited to those identified in the South Metropolitan Peel Sub Regional Planning Framework and those undeveloped rural residential areas further reviewed for suitability.</p>
<p>Peel Equine Strategy</p>	<p>August 2017</p>	<p>The Strategy provides a strategic framework to support and grow the equine industry within the Peel region, including the Shire of Murray. It identifies opportunities for economic development, land use planning considerations, and infrastructure needs to enhance the region's reputation as a hub for equine activities.</p>	<p>The Strategy should respond to the Peel Equine Strategy by supporting the growth and sustainability of the equine industry through appropriate land use planning and infrastructure provisions. Specific inclusions should identify and protect equine precincts, ensure adequate buffers between equine and incompatible land uses and facilitate the development of equine related facilities such as training tracks, agistment areas.</p>
<p>Pinjarra Town Centre Revitalisation Strategy and Draft Activity Centre Plan</p>	<p>June 2017</p>	<p>To coordinate future subdivision, zoning and development of land within the Pinjarra Secondary Centre and set out a range of infrastructure and place making actions necessary to achieve the stated vision.</p>	<p>The draft activity centre plan will be superseded by the Pinjarra District Structure Plan and Pinjarra Precinct Structure Plan.</p>
<p>Southern Palusplain strategy</p>	<p>March 2021</p>	<p>The Southern Palusplain Strategy provides a planning framework to guide land use and development within the environmentally sensitive Southern Palusplain area, focusing on balancing diversified agriculture production and equine land uses with environmental conservation. It aims to protect wetlands, improve water quality, and support appropriate agricultural and equine development activities.</p>	<p>The Strategy should prioritise sustainable agriculture and equine land uses for this area recognising the environmental sensitivities and therefore limiting development in flood prone areas or local natural areas, implementing best practice agricultural management and protecting wetlands and water quality through suitable provisions in LPS6.</p>
<p>Sport and Recreation Infrastructure Plan</p>	<p>April 2024</p>	<p>The Plan outlines the strategic planning and investment priorities for sport and recreation facilities within the Shire. It ensures that infrastructure meets the needs of the growing community, promotes healthy lifestyles and</p>	<p>The Strategy should identify the future sport and recreation infrastructure needs to inform future stages of planning and include an action for LPS6 to include a Development</p>

supports a diverse range of sporting and recreational activities.

Contribution Area SCA to enable equitable developer contributions towards sport and recreation infrastructure.



4 Local Government Profile

The purpose of the local government profile is to provide background information and analysis on the demographic profile and key planning issues for the Shire. The Local Government Profile is organised under the following headings:

- Demographic profile and population forecast;
- Community, urban growth and settlement;
- Economy and employment;
- Environment;
- Infrastructure.

The analysis under the Local Government Profile will provide the context and substantial basis for the planning issues and planning areas presented in Part 1 of the Strategy.

4.1 Demographic profile and population forecast

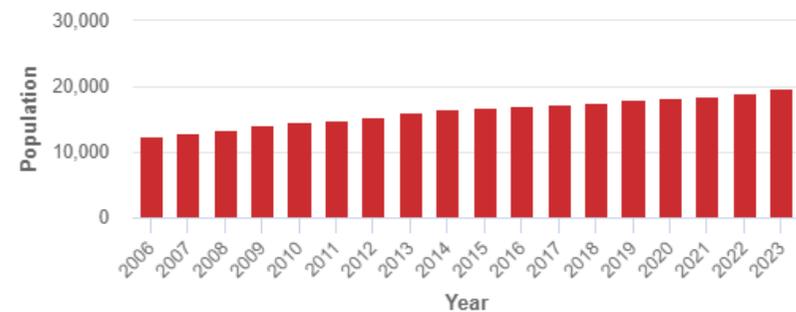
4.1.1 Demographic profile

4.1.1.1 Population

Between 2006 and 2023, the Shire of Murray experienced significant population growth, increasing by approximately 58%, from 12,522 to 19,823 residents. The Shire's average annual growth rate of 2.7% surpassed the Greater Perth average of 2.3% over the same period, highlighting Murray's growing appeal as a residential destination. This population increase presents opportunities for local development and economic expansion, however it also brings challenges in ensuring

adequate infrastructure, services and strategic planning to support the growing community.

Figure 3: Estimated resident population 2006 - 2023



Source: Australian Bureau of Statistics, Regional Population Growth, Australia (3218.0). Compiled and presented by .id (informed decisions)

4.1.1.2 Population distribution

The Shire of Murray's population is currently highly dispersed. It reflects a blend of urban, peri-urban and rural development shaped by historical growth, geographical features and its proximity to the major population centres of Mandurah and Perth.

The primary town centre is Pinjarra which serves as the administrative, commercial and service hub of the Shire, with a mix of residential, commercial and community uses. To the west of Pinjarra are the riverside settlements of Ravenswood, North Yunderup and South

Yunderup. These areas have established adjacent to the Murray River, and in the case of North and South Yunderup are interspersed with natural waterways, canals and wetlands.

The Shire's extensive rural, semi-rural and forest areas dominate the remaining landscape, supporting agricultural activities, rural residential communities, as well as the small rural towns of Coolup, Dwellingup and North Dandalup.

The Shire's population distribution is displayed in Table 10. It is grouped into 11 precincts, with the area of each precinct based on a range of factors, including existing population, previously identified growth areas and a sufficient precinct population to enable reliable forecasting. This shows that Pinjarra is clearly the main settlement with a population of over 5,000 people, followed by South Yunderup with a population of over 4,000 and Ravenswood with a population approximately 2,500. The remaining population is distributed throughout the remaining precincts.

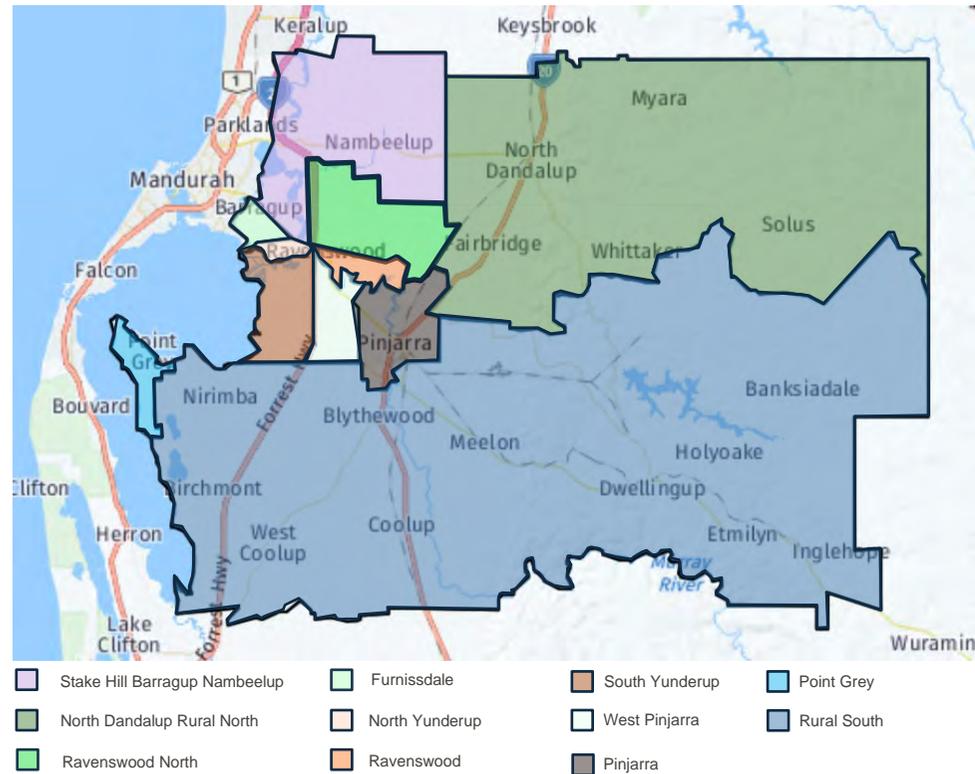
The dispersed settlement pattern presents ongoing challenges for the sustainable delivery of infrastructure, environmental management, economic vitality and transport connectivity. This spatial form contributes to increased energy consumption, higher per capita infrastructure and service delivery costs and greater social isolation, particularly for ageing and vulnerable populations compared to a more consolidated urban form.

Table 10: Population distribution 2023

Precinct	Population	Occupied Dwellings	Average household size
Furnissdale	1,110	556	1.99
North Dandalup, Rural North	1021	359	2.79
North Yunderup	888	408	2.12
Pinjarra	5,249	2,153	2.39
Point Grey	0	0	0
Ravenswood	2,505	1036	2.38
Ravenswood North	63	21	2.97
Rural South, including Dwellingup	1,953	754	2.51
South Yunderup	4,100	1,745	2.34
Stake Hill, Barragup, Nambelup	1,856	626	2.96
West Pinjarra	542	198	2.74

Source: id forecast 2023

Figure 4: Precincts within Shire of Murray



Source: id forecast 2023

The Strategy should focus on consolidating population growth around existing towns and settlements to enhance sustainability, enable more efficient use of infrastructure, improve public and active transport options, protect environmental assets, strengthen local businesses, reduce energy demands, support social cohesion and protect productive rural land and rural character.

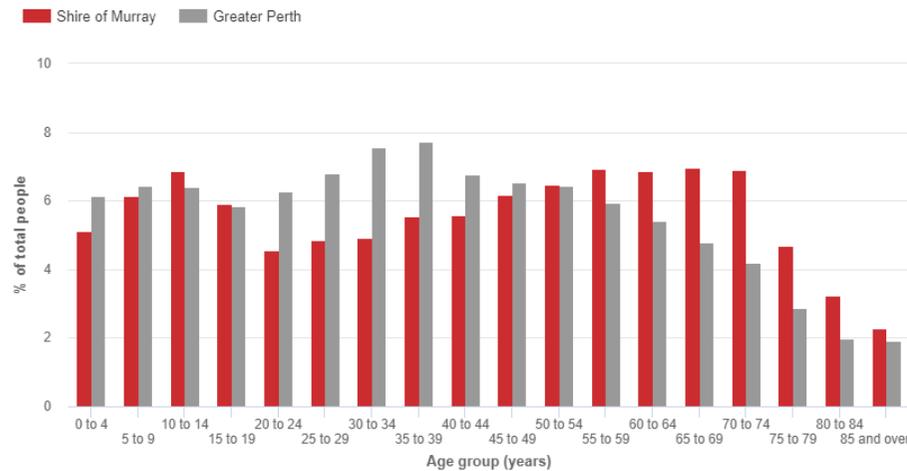
4.1.1.3 Age profile

The Shire of Murray has an ageing population. This trend is common in rural and regional areas, where a decline in the 20 - 40 year age group, combined with smaller family sizes and increased life expectancy, results in a lower proportion of young adults and children in the population. When compared to Greater Perth, which also has an ageing demographic, it becomes clear that Murray has a smaller share of younger residents and a higher proportion of middle-aged and elderly individuals.

This age profile can challenge economic growth, limit workforce availability and place greater pressure on healthcare and social services, affecting the community's long-term sustainability. Addressing this population issue will require strategic action to both attract and retain younger populations, while ensuring adequate support for the growing number of older residents.

To help attract younger age groups, the Strategy should provide for diversified employment opportunities, a range of housing options, education and training facilities and recreational and cultural amenities. The greater proportion of aging residents will also require focus on healthcare services, expanded public transport, offering more diverse and adaptive housing options to support ageing in place and ensuring safe, accessible urban environments.

Figure 5: Age structure – five year age groups 2021



Source: Australian Bureau of Statistics, [Census of Population and Housing, 2021 \(Usual residence data\)](#). Compiled and presented in profile.id by [id](#) (informed decisions).

4.1.1.4 Ethnicity

The Shire currently has a relatively low proportion of residents from culturally and linguistically diverse backgrounds. The 2021 Census shows that only 3.0% of the population speak a language other than English at home, compared to 20.9% in Greater Perth. Similarly, just 17.8% of the Shire’s population were born overseas, compared to 36% in Greater Perth, with approximately two-thirds of these being born in the United Kingdom or New Zealand. While current planning and service needs are reflective of this relatively homogeneous demographic profile, the Strategy should recognise the potential for future diversification as the Shire grows and attracts new populations. Planning for inclusive communities, adaptable service delivery and

housing diversity will ensure the Shire is prepared to respond to changing social and cultural dynamics over time.

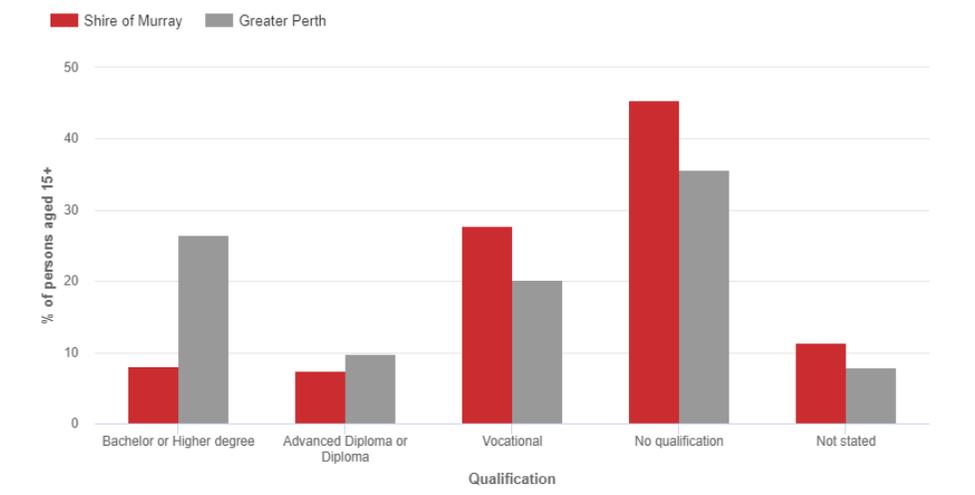
4.1.1.5 Education

The Shire has comparatively lower levels of educational attainment than Greater Perth. According to the 2021 Census, 45.4% of residents aged 15 years and over reported having no post-school qualifications, compared to 35.6% in Greater Perth. While only 15.5% of the Shire’s residents hold a university qualification (compared to 36.3% in Greater Perth), a higher proportion hold a vocational qualification, 27.7% compared to 20.7% in Greater Perth. This reflects the Shire’s strong trade and technical skills base.

Higher education levels are strongly linked to increased earning potential, job stability, and access to skilled employment. Conversely, lower levels of tertiary education can limit economic diversification, constrain local workforce capacity and reduce the Shire’s attractiveness to knowledge based industries and high-value investment. Households with lower educational attainment also tend to spend a larger share of their income on basic needs, which can reduce local economic resilience and limit upward mobility.

The Strategy can help address these challenges by ensuring adequate land is identified for education and training facilities, providing for flexible zoning to enable innovation hubs, research centres and co-working spaces, supporting improved public transport access to regional education facilities and facilitating diverse and affordable housing near employment and training nodes.

Figure 6: Highest qualification achieved 2021



Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by .id (informed decisions).

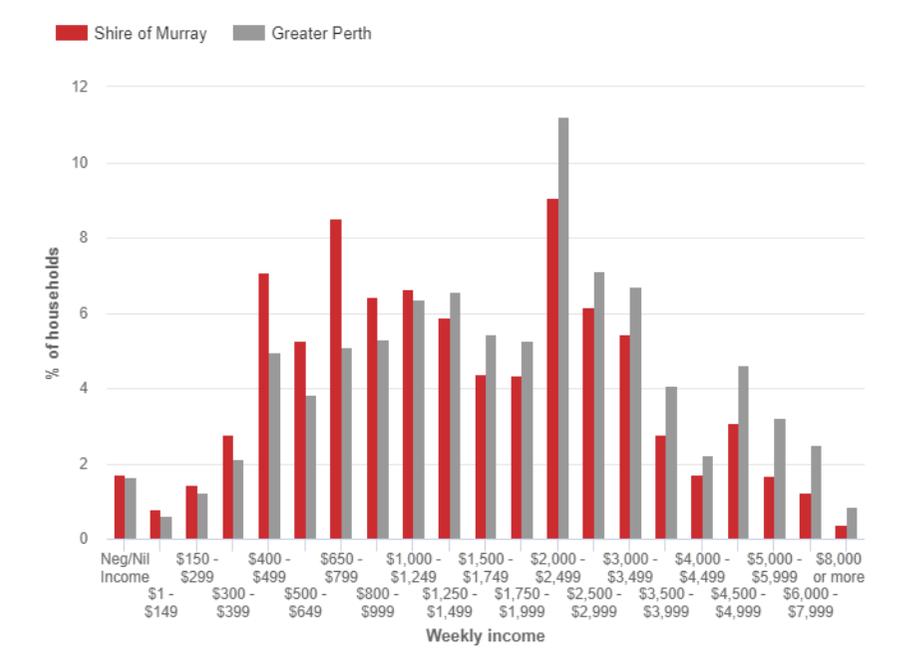
4.1.1.6 Income and Expenditure

The Shire of Murray has a lower proportion of households across all income categories over \$1,250 per week (46.1% vs 59.7%) compared to Greater Perth. This likely reflects the greater concentration of trade and labour related workers, lower education levels and a greater proportion of retirees. The lower income of residents in the Shire indicates a greater proportion of expenditure will be spend on essentials.

Attracting higher income residents will allow activity centres to provide a greater diversity of retail offerings that will improve access to goods and services for the wider resident population.

The key factors for attracting higher income residents are the same as for attracting higher education residents.

Figure 7: Weekly household income 2021



Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Enumerated data). Compiled and presented in profile.id by .id (informed decisions).

4.1.1.7 Housing

The Shire’s housing stock is overwhelmingly dominated by detached dwellings, which account for 92.2% of all homes, significantly higher than the 75.6% recorded for Greater Perth. This is reflected in the prevalence of larger dwellings, with 48.8% of homes in the Shire having four or five bedrooms compared to 44.2% in Greater Perth. In contrast,

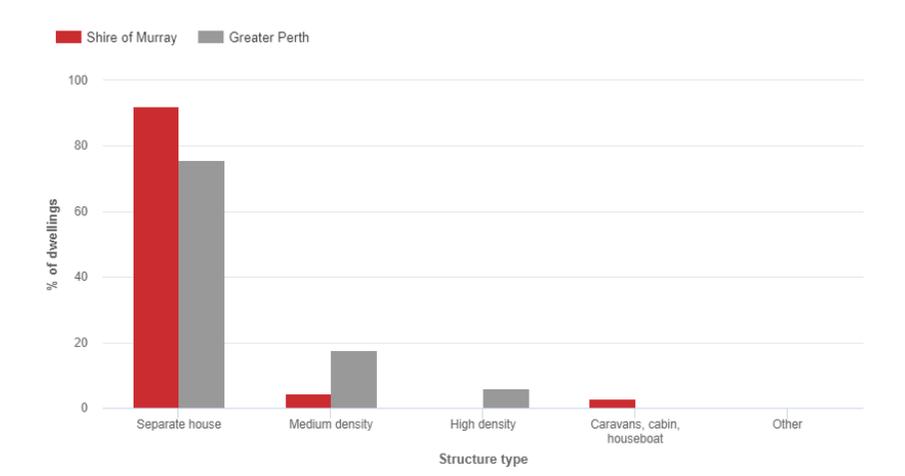
only 45.1% of dwellings in Murray have up to three bedrooms, whereas the figure is 51.7% across Greater Perth.

This dominance of large, detached homes does not align well with the Shire’s demographic profile. As of the 2021 Census, 63.7% of all households in the Shire comprised one or two people, higher than the 57.8% observed in Greater Perth. The average household size in Murray was 2.42 persons, slightly lower than Greater Perth’s 2.50. While home ownership or purchasing rates are relatively high at 71.8% (compared to 68.1% in Greater Perth), rental opportunities are limited, with just 18% of households renting, well below the Perth average of 26%.

This lack of housing diversity has important strategic implications. The current housing stock does not adequately support an ageing population, many of whom will require smaller, universally accessible homes or alternative care options to age in place. Similarly, the limited availability of smaller and more affordable housing restricts opportunities for younger adults, single person households and single parent families, making it difficult to attract and retain a diverse and economically resilient population. A lack of housing choice also reduces the Shire’s ability to support a flexible workforce, potentially constraining local business growth and the attraction of skilled professionals.

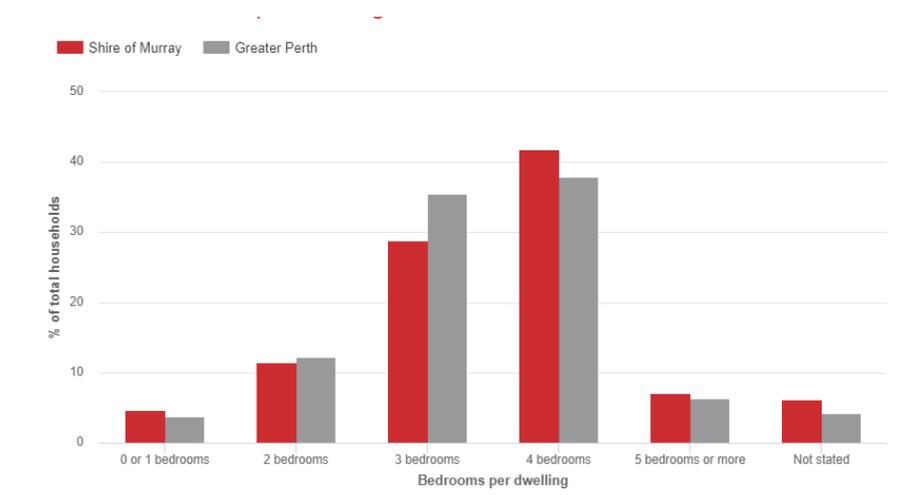
To address these challenges, the Strategy should seek to increase the diversity of housing options available throughout the Shire. This includes providing for the development of smaller dwellings, particularly in and around town centres and key public transport routes. The Strategy should also provide opportunities for retirement living, aged care facilities and housing that meets universal design principles to support seniors and people with disabilities.

Figure 8: Dwelling structure 2021



Source: Australian Bureau of Statistics, [Census of Population and Housing, 2021](#) (Enumerated data). Compiled and presented in profile.id by [id](#) (informed decisions).

Figure 9: Number of bedrooms per dwelling 2021



Source: Australian Bureau of Statistics, [Census of Population and Housing, 2021](#) (Enumerated data). Compiled and presented in profile.id by [id](#) (informed decisions).

Figure 10: Household size 2021

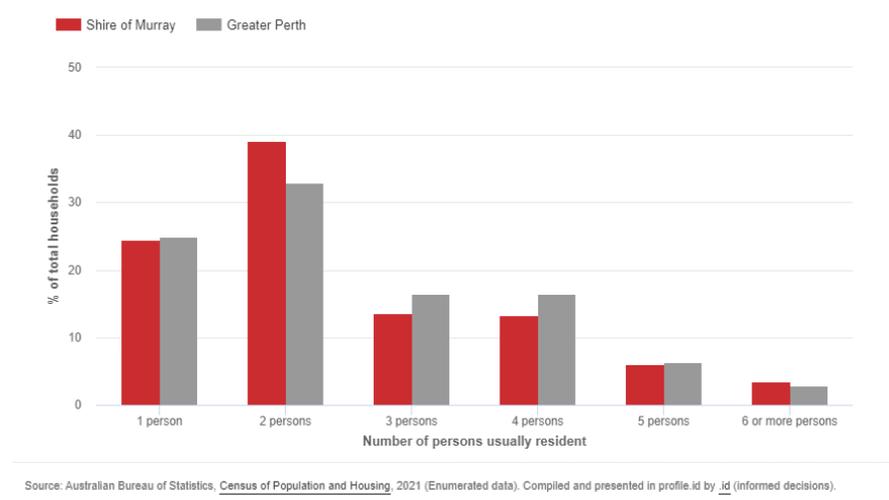
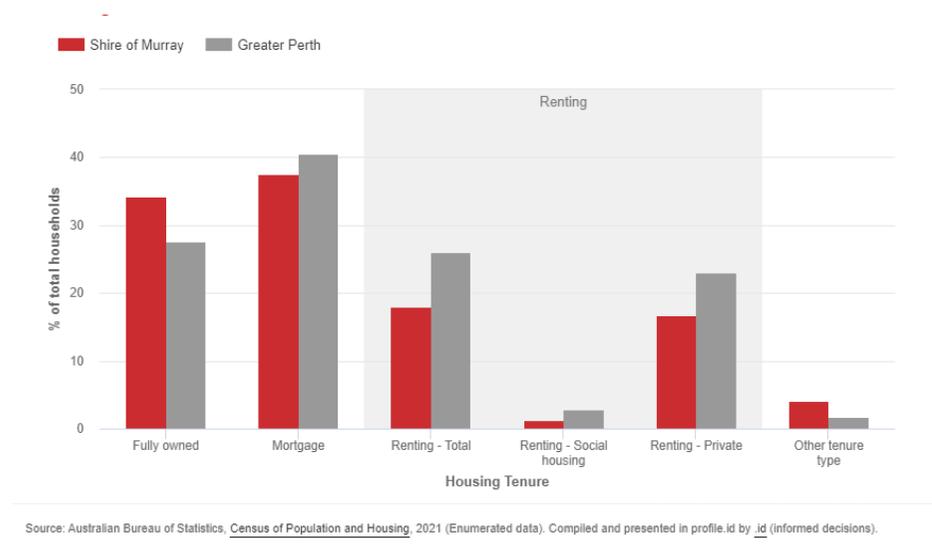


Figure 11: Housing tenure 2021



4.1.1.8 Health

The Shire’s residents exhibit significantly poorer health outcomes than Greater Perth. According to the 2021 Census, 36.7% of residents report a long-term health condition, compared to 29.9% in the Greater Perth. The key differences are a greater percentage of people living with:

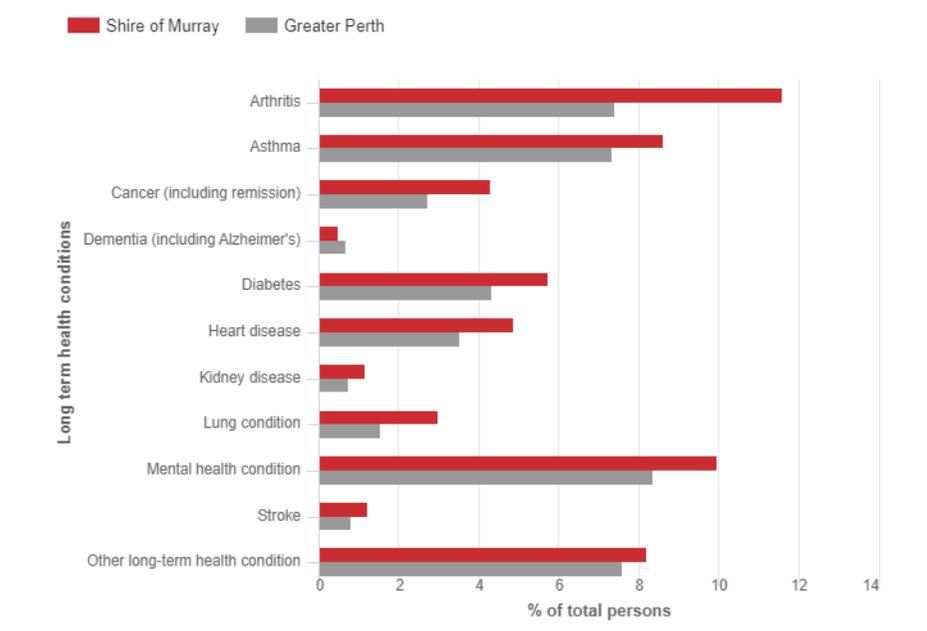
- arthritis (11.6% compared to 7.4%);
- a mental health condition (10.0% compared to 8.4%);
- asthma 8.6% compared to 7.3%);
- diabetes (5.7% compared to 4.3%);
- heart disease (4.9% compared to 3.5%);
- Cancer, including remission (4.3% compared to 2.7%).

In 2023 the South Metropolitan Health Service Health and Wellbeing profile for the Shire further reported that 81.9% of Shire of Murray residents are either overweight or obese, compared to 72.5% in Western Australia.

While community health is shaped by many factors, regular physical activity is proven to reduce the risk of chronic disease, including cardiovascular disease, diabetes, and certain cancers, as well as support mental health and aid weight management.

The Strategy can assist with improving health outcomes by providing for healthy urban design and active infrastructure. Compact, walkable communities, well connected pedestrian and cycling networks, easy access to public transport and integrated green spaces will encourage daily physical activity.

Figure 12: Long term health conditions 2021



Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by id (informed decisions).

4.1.1.9 Jobs and Businesses

The number of jobs in the Shire of Murray increased by approximately 15% from 2016 to 2021. The total number of businesses is constant at approximately 1,146, although it has increased from 2020 levels where the number of businesses was as low as 1,030. Businesses in the Shire appear to be growing in terms of employees, although COVID may have temporarily hampered the uptake of new businesses.

Table 11: Number of employees and businesses 2016 - 2022

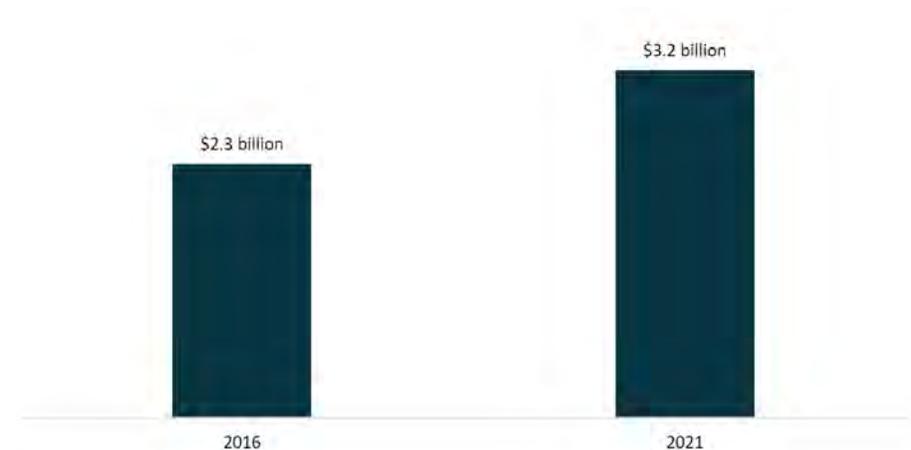
Metric	2016	2021 (Businesses are 2022)
Employment	6,721	7,728
Businesses	1,144	1,146

Sources: ABS Catalogue 8165 2016/22, Economy.id 2023

4.1.1.10 Economic Output

The Shire of Murray's economic output increased by approximately 40% between 2016 - 2021, likely due to increases in the price of commodities and growth in the mining and manufacturing industries.

Figure 13: Growth in Gross Regional Product 2016 - 2021



Source: Economy.id 2023

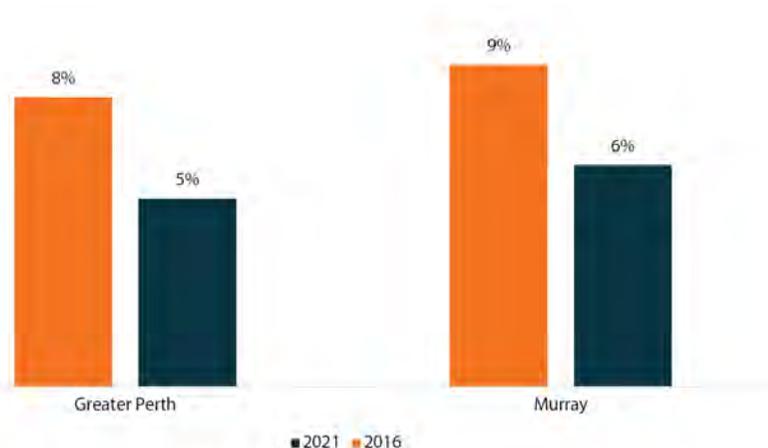
4.1.1.11 Unemployment

Unemployment in Murray is slightly higher at 6% than the Greater Perth at 5%, however this has reduced over the five year period to 2021. The

reduction in unemployment is likely associated with increased mining activity. Industry diversification is required to minimise a potential reversal the next time mining activity slows.

The Strategy can support employment opportunities by planning for sufficient employment land and land use flexibility to meet the needs of the current and future population. It can also prioritise strategic employment uses in key industrial areas such as the Peel Business Park.

Figure 14: Unemployment rate 2016-2021



Source: ABS Census 2021

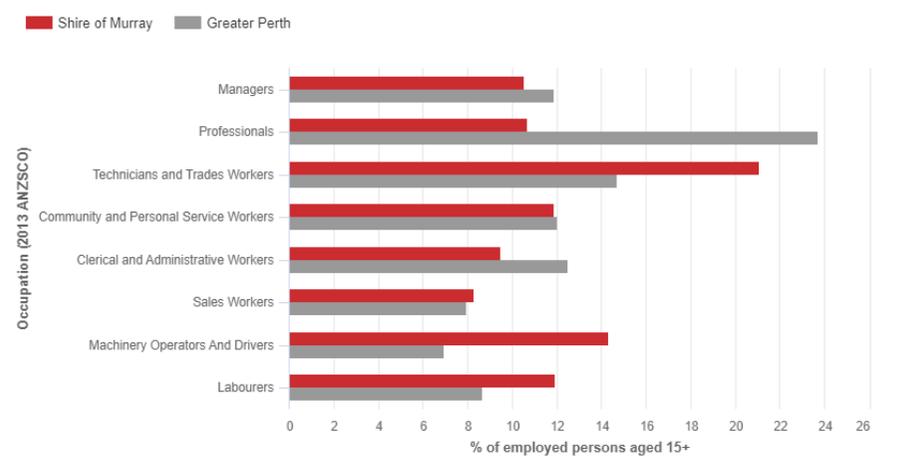
4.1.1.12 Occupation

21.2% of the labour force in Shire of Murray are managers or professionals, compared to 35.6% in Greater Perth, reflecting a likely lower disposable income in the Shire. Residents are more likely to work as trades persons, machinery operators, labourers and community

service workers. The higher prevalence of these occupations may indicate that local workers in key industries are working in lower skilled roles.

Additional training and education infrastructure is likely needed to upskill these workers and train future local residents to compete for higher skilled employment. The Strategy should allow for education and training infrastructure in key activity centres or in proximity to strategic employment, such as the Food Innovation Precinct in the Peel Business Park.

Figure 15: Occupation of employment 2021



Source: Australian Bureau of Statistics, Census of Population and Housing, 2021 (Usual residence data). Compiled and presented in profile.id by [id](#) (informed decisions).

4.1.1.13 Employment by Industry

Employment by Industry in the Shire of Murray is dominated by mining and manufacturing, with retail and construction the next largest industries. Industry concentration has been compared to the Greater Perth area using Location Quotients. A Location Quotient of greater

than one (1) indicates that the Shire has an advantage in the industry and may be exporting the relevant goods and services. The Location Quotients demonstrate that the Shire has a significant advantage in primary industries, such as metal product manufacturing, metal ore mining and agriculture. It is less competitive with regards to most population related industries and knowledge-based industries, such as professional services.

Table 12: Employment by industry 2021

Manufacturing	Jobs	Location Quotient
Primary Metal and Metal Product Manufacturing	1,400	34.14
Metal Ore Mining	513	3.72
Food and Beverage Services	383	1.00
Preschool and School Education	377	0.93
Construction Services	288	1.10
Agriculture	267	8.43
Food Retailing	235	1.13
Public Administration	172	0.74
Professional, Scientific and Technical Services (except Computer System Design and Related Services)	138	0.32
Other Store-Based Retailing	129	0.42

Source: ABS Census 2021

4.1.1.14 Employment Self Sufficiency

The Shire of Murray has an Employment Self-Sufficiency (ESS) rate of approximately 85%, meaning there are almost as many job opportunities in the Shire as there are persons in the labour force. ESS

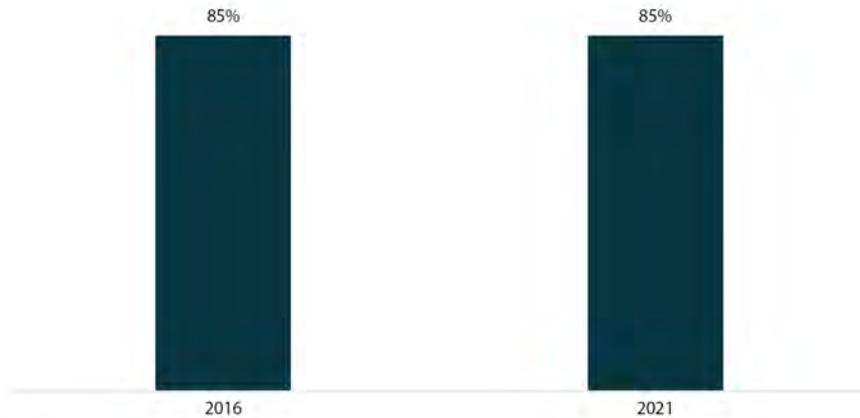
is calculated by dividing the number of jobs available in the Shire by the number of residents in the labour force.

However, the Shire's forecasted population growth presents a significant risk to ensure employment grows in tandem with the growing resident population. While population driven employment such as retail, health, and education can be expected to increase organically as population grows, attracting strategic employment in high value industries requires proactive planning and facilitation.

Currently, the Shire's largest employers are in metal mining and manufacturing, notably bauxite mining refining led by Alcoa. These industries account for approximately 2,040 jobs. While these sectors are currently stable under long standing leases and State agreements, Alcoa's mining lease only extends to 2045. Automation, market fluctuations, commodity prices and the finite nature of the resource all may contribute to uncertainty or decline in employment opportunities in the future.

These factors underscore the critical need for economic diversification. The Strategy must ensure sufficient and appropriately located land is zoned for employment growth, especially within strategic activity centres and industrial areas, with flexible land use policies to accommodate emerging sectors. The Shire should also continue and intensify targeted economic development efforts to attract and retain new industries such as agri-business, advanced manufacturing, research and innovation, tourism, and education that can provide sustainable, high quality employment. Encouraging mixed use development, supporting incubation spaces and aligning infrastructure investments with business needs will help maintain the current high employment self-sufficiency and build economic resilience.

Figure 16: Employment Self-Sufficiency, 2016 – 2021

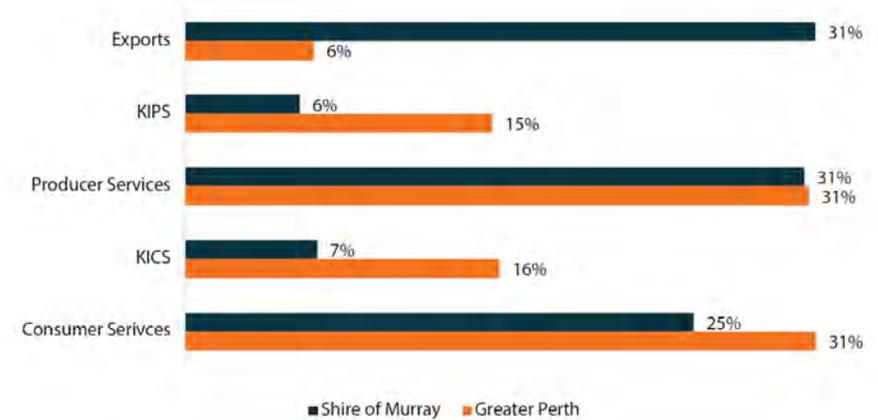


Source: Economy.id 2023

4.1.1.15 Quality of employment

The Shire has a high level of export orientated industry employment that supports its high ESS levels, however the attractiveness of these jobs to workers from outside the Shire minimises the benefit to the local community. The export orientated nature of the local economy can be seen when comparing the Employment Quality in the Shire with that of the Greater Perth region. Employment Quality can be described by considering industry uses and the required level of knowledge.

Figure 17: Employment quality comparison 2021/23



Source: ABS 2021, Pracsys 2023

Strategic employment combines exports and supporting knowledge intensive producer services (KIPS). KIPS such as professional services is lacking in Murray, reflecting the dominance of the Perth central business district and external supply chains. More generally, employment density is low in all areas, except exports and producer services, reflecting the local economy's reliance on primary industries.

The Strategy needs to facilitate employment growth in strategic industries and in population driven industries through the provision of suitable zoned land and land use flexibility. The low levels of consumer services and knowledge intensive consumer services (KICS) result in less access to goods and services locally and limit the attractiveness of the Shire to higher skilled workers.

The Strategy also needs to ensure a minimum level of access to population driven goods and services is planned for, which will predominantly be located within activity centres. Strategic employment

will be driven by priority projects identified in the Shire’s Economic Strategy. The Strategy has a role in ensuring key employment centres, such as the Peel Business Park, have land use flexibility and clear development provisions in place to minimise barriers to the establishment of strategic businesses.

4.1.1.16 Employment self-containment

Although the Shire maintains a strong ESS, only 34% of jobs filled by local workers are occupied by residents living in the Shire. This low Employment Self Containment (ESC) indicates that over 60% of the Shire’s labour force commute extensively for work, highlighting a significant spatial disconnection between residence and employment.

Detailed analysis shows that many Murray residents travel to Mandurah, Rockingham or Perth and a proportion are employed in FIFO (Fly-In Fly-Out) roles. Long outbound commutes reduce residential liveability, weaken community cohesion, increase load on transport infrastructure reduces local spending and therefore business viability.

Reducing the number of residents that drive outside of the Shire of Murray to access employment and increasing the proportion of residents in higher skilled jobs will require alignment of local skills with local employment. This can be assisted by supporting education and skills development for the local labour force and by attracting skilled workers to live in the Shire. For the Strategy it will be important to ensure sufficient land is allocated within key centres and employment areas for education and training facilities, enabling residents to acquire skills relevant to local industries. Further, the Strategy should secure a baseline of activity centre floorspace and amenity infrastructure including parks, schools, entertainment, public transport that will

enhance liveability for workers and support attraction and retention of skilled employees.

Table 13: Where residents work 2021

Local Government	Jobs	Drive Time
Murray	2,544	<20 min
Mandurah	1,459	~20 min
No usual address (WA)	465	N/A
Rockingham	364	40 min
Waroona	283	40 min
Perth	200	85
Kwinana	190	45
Boddington	169	50 min
Cockburn	160	60 min
East Pilbara	152	3 hours
Ashburton	123	3 hours

Sources: Economy.id 2023, Google Maps 2023

Table 14: Industry proportion of total jobs vs resident industry of employment 2021

ANZSIC 1 Industry	Industry % of Total Employment	Resident Industry of Work %
Manufacturing	28%	11%
Mining	10%	14%
Construction	8%	10%
Retail Trade	8%	9%
Other Industries	46%	56%

Source: Economy.id 2023, ABS Census 2021

4.1.1.17 Level of Disadvantage

The Shire of Murray is currently one of the most disadvantaged areas in Greater Perth according to the Socio-Economic Indexes for Areas (SEIFA) which is used to track overall levels of advantage and disadvantage in communities across Australia. Lower scores indicate higher levels of disadvantage relative to the national average (1,000). Under this measure, the Shire of Murray scores 931 compared to the current Greater Perth average of 1,041. This reflects lower income levels and a number of other factors relating to disadvantage, such as single parent households and lower education level.

This relative disadvantage has a range of implications for the wellbeing and opportunities of the Shire's residents. It highlights the importance of planning for economic development and improving access to education, training and essential services. Lower levels of education and income can limit access to stable employment and housing, reduce health outcomes and increase demand for social support services. These challenges are compounded by the Shire's dispersed settlement pattern and car dependent urban form, which can make access to jobs, education and services more difficult for low income households.

The Strategy should support increased employment opportunities, affordable housing, provision for education and training facilities to support lower socio-economic and other disadvantaged resident segments.

4.1.1.18 Implications of Demographic Profile

The Shire has experienced strong population growth and is projected to continue growing, but this growth is occurring across a highly dispersed settlement pattern. This presents significant land use planning challenges in terms of infrastructure efficiency, service delivery,

environmental management, and community cohesion. The Strategy must therefore prioritise a more compact and consolidated urban form to enable coordinated infrastructure provision, support viable public and active transport options and protect rural land and environmental assets.

The Shire's ageing population, smaller household sizes and high proportion of one and two person households underscore the need for greater housing diversity. Current housing stock is dominated by large, detached dwellings which do not align with changing demographic needs. Land use planning must respond by facilitating smaller, more adaptable and accessible housing types, particularly in town centres and areas close to services and transport.

Lower levels of education and income, along with a high level of socio-economic disadvantage, present a significant barrier to economic participation and social mobility in the Shire. The Strategy can help address these challenges by ensuring well located land for education, training and community services. Flexible zoning should also support education, training and research activities to improve skills, job readiness and access to higher value employment. Providing affordable and diverse housing options in compact, accessible areas will also reduce cost of living pressures and improve long term outcomes for disadvantaged residents.

Despite a high employment self-sufficiency rate, low employment self-containment means many residents work outside the Shire. This spatial mismatch increases pressure on transport networks and limits local economic benefits. The Strategy must focus on ensuring sufficient employment land in town centres and industrial areas and providing zoning flexibility for targeted strategic employment sectors such as agri-business, advanced manufacturing and tourism.

To improve liveability and health outcomes, the Strategy should also plan for compact, walkable neighbourhoods with connected open spaces and active transport infrastructure to support physical activity and reduce reliance on cars.

4.1.2 Population forecast

The *Western Australia Tomorrow – Population Report No. 11 (2016–2031)* provides the State Government’s official population forecasts and includes five growth bands, A to E which represents a range of low to high population outcomes, with Band C as the median. While this dataset offers a useful benchmark, it is based on the 2016 ABS Census and only extends to 2031, covering only portion of the 15-year horizon for this Strategy. As such, it no longer adequately reflects current demographic trends, particularly in a growth area like the Shire of Murray. To extend these forecasts to 2038, growth rates have been extrapolated; however, reliance on now aged data introduces uncertainty.

Table 15: WA Tomorrow Population Forecasts 2016 – 2031

Persons per WA Tomorrow Band					
Year	Band A	Band B	Band C	Band D	Band E
2016	17 090	17 090	17 090	17 090	17 090
2021	16 840	17 880	18 280	18 700	19 760
2026	18 020	19 320	19 800	20 400	21 720
2031	19 630	21 030	21 610	22 210	23 650
2036*	20 475	22 345	23 115	23 915	25 835
2038*	20 813	22 871	23 717	24 597	26 709

*Extrapolation using annual average growth rates from 2016 to 2031

The Shire’s .id population forecasts are based on more recent Census data, are updated annually and extend through to 2051. These forecasts are widely used by local governments across Australia and align with the planning horizon of the *South Metropolitan Peel Sub-regional Planning Framework*. The .id forecasts also take into account emerging growth patterns and planned development, offering a sound basis for local planning. The id forecast data is therefore the preferred forecasts to be used for this Strategy. The methodology, inputs and assumptions used by id forecast are available at [Home | Murray Shire Council | Population forecast](#). The id forecast population forecasts for the Shire are presented in Table 16.

Table 16: Population forecasts 2021 – 2051

Year	Forecast Population
2,021	18,695
2,026	20,377
2,031	24,086
2,036	32,829
2038	37,794
2,041	45,469
2,046	58,809
2,051	71,820

Source: Forecast id, 2023

Significantly, it is noted that the .id forecast for 2031 exceeds the most optimistic (Band E) WA Tomorrow projection by 436 people. By 2038, using an extrapolation of the WA Tomorrow projections, the gap grows to over 11,000. This underscores the potential of underestimating future demand if only WA Tomorrow figures are used. According to .id, the Shire of Murray’s population is projected to nearly double from 19,252 in 2023 to 37,794 by 2038. From 2038 to 2051, the population is expected to nearly double again, reaching 71,820. This represents an

increase of 18,542 over the 15 year horizon of the Strategy and a total increase of 52,568 people over 28 years to 2051.

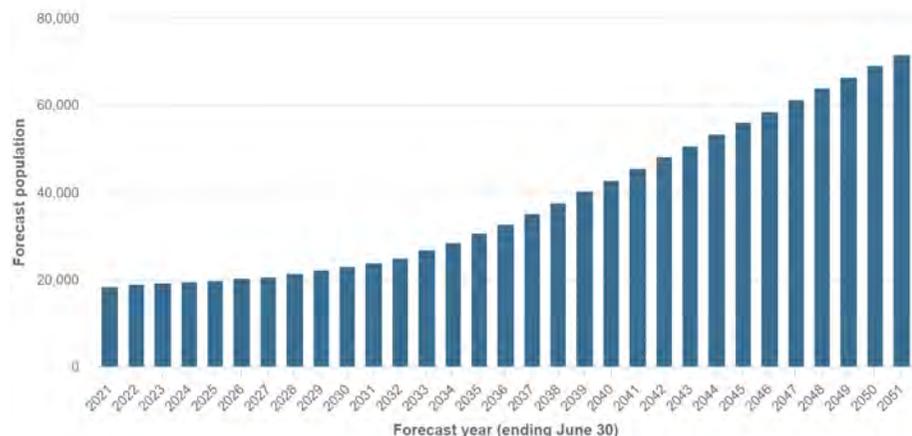
Table 17: Forecast population increase 2023 – 2051

Year	Forecast Population	Forecast Population Increase from 2023
2,023	19,252	N/A
2038	37,794	18,542
2051	71,820	52,568

Source: Forecast id, 2023

Recognising the longer term growth trajectory is critical in the Shire’s case. The Shire’s settlement pattern is dispersed and infrastructure intensive and decisions made now, particularly around road networks, employment precincts, town centres and essential infrastructure must account for the needs of future populations beyond the standard 15 year horizon. Planning only to 2038 risks under provision of key services and infrastructure, leading to inefficient ad hoc responses. By incorporating the 2051 horizon into this Strategy, the Shire can ensure that infrastructure capacity, housing supply, town centres, community facilities and economic development opportunities are appropriately scaled and located to support longer term sustainable growth.

Figure 18: Population forecast 2021-2051



Source: Forecast id, 2023

4.1.3 Dwelling yield analysis

In 2023 Id forecast estimated there were 8,448 dwellings established within the Shire of Murray. The forecast indicates an additional 7,229 dwellings will be needed to support the additional 18,542 forecast population for the Shire of Murray by 2038, being the 15-year horizon for the Strategy.

In addition, these projections indicate a further 13,020 dwellings will be needed to support the further additional 34,026 forecast population growth between 2038 and 2051. In total this represents 20,249 additional dwellings that will be needed to support the forecast population growth for the Shire of Murray by 2051.

Table 18: Forecast Dwelling Increase 2023 – 2051

Year	Forecast Population	Forecast Dwelling Increase from 2023
2,023	8,448	N/A
2038	15,677	7,229
2051	28,697	20,249

Source: Forecast id, 2023

A capacity analysis has been undertaken across various planning categories of land within the Shire that can accommodate housing and are either already zoned but remain undeveloped, or are identified for potential future development. Collectively, these areas have the capacity to accommodate approximately 49,274 additional dwellings, supporting a population increase of around 122,507 people. The planning categories include undeveloped land that is:

- zoned Urban or Urban Deferred under the Peel Region Scheme;
- identified in the Planning Framework as Urban Expansion, Urban Investigation, Rural Residential, Rural Residential Investigation, or is to contribute toward the residential infill target;
- zoned Special Rural or similar under the current Local Planning Scheme No. 4 (LPS4);
- identified as Special Use Equestrian under the Shire of Murray Southern Palusplain Strategy; and
- identified in the draft Dwellingup Structure Plan as Residential Consolidation or Development Investigation, generally within 800 metres of the town centre.

The dwelling and population capacity for each of these planning categories are summarised in Table 19.

Table 19: Dwelling and population capacity for various planning categories

Planning category		Dwelling capacity	Population capacity
Undeveloped Zoned	urban	18,009	43,758
Urban Deferred		1,052	2,657
Undeveloped Residential Zone	Rural	917	2,320
Proposed Residential	Rural	361	914
Urban Expansion		6,987	17,675
Urban Investigation		20,868	52,796
Urban infill		1,080	2,387
Total		49,274	122,507

Source: Shire of Murray, 2023

Ensuring an adequate and well sequenced supply of land for housing is essential to meeting forecast population growth. However, capacity analysis of existing and potential future areas that can accommodate housing indicates that the total available land supply within all planning

categories significantly exceeds that required to accommodate projected growth over the 15-year life of this Strategy.

Unless these areas are appropriately sequenced, there is a high risk of further population dispersal across the Shire, exacerbating existing issues relating to matters such as infrastructure inefficiencies, limited service accessibility, accessibility and the undermining of a consolidated settlement pattern as discussed in Section 4.1.1.2: Population Distribution.

To address this the Strategy prioritises specific areas for urban based housing growth, with a clear focus on reinforcing a consolidated and efficient urban form. Proposals outside these areas, regardless of proximity to existing settlements, should only be considered beyond the life of this Strategy. Specifically, areas for housing growth shown in the Strategy Map aims to:

- Support the growth and development of existing towns, particularly Pinjarra as the Shire's primary urban centre, to maximise the efficiency of service delivery, the viability of infrastructure investment, access to employment and services, and the social and economic benefits of a more concentrated population base.
- Restrict greenfield housing areas to defined growth areas that represent logical, planned extensions of the urban footprint and avoid ad-hoc proposals that create fragmented or isolated development patterns, even where located near existing urban areas;
- Strengthen the viability, efficiency, and investment potential of the proposed high priority Pinjarra Road transit corridor by concentrating growth within its catchment; and

- Ensure infrastructure efficiency and cost effectiveness by focussing infrastructure provision and avoiding fragmented residential estates that are disconnected from existing urban centres and unable to viably support community infrastructure.

Expansion of rural living areas are limited to those areas that are shown on the Planning Framework or have otherwise been approved for this use.

The areas identified as *Future Urban*, *Urban Investigation*, *Future Rural Residential*, and *Rural Residential Investigation* on the Local Planning Strategy map represent the areas for housing development priority for the 15-year horizon of this Strategy. These areas provide for a diverse range of lifestyle options and housing types, distributed across multiple localities to cater to a wide cross section of the community.

These areas have capacity for approximately 24,286 additional dwellings, equating to an additional population of 60,945 people. Forecast modelling (id Forecast) indicates that only around 60% of these areas are likely to be developed by 2038. Nevertheless, the areas are sufficiently generous in size and diverse in ownership to ensure a continuous and competitive land supply to and beyond 2038. This supports affordability and choice while maintaining the Strategy's consolidation objectives.

Beyond 2038, the remaining land from within the various planning categories could be considered for longer term growth. These additional areas collectively have capacity for approximately 21,000 dwellings and 54,000 people. However, they have not been included within the current Strategy as there is no identified need based on population forecasts and this would be contrary to the consolidation objectives of the Strategy.

In reviewing land supply and the consolidation objectives, several areas historically zoned for urban purposes have not been included as Future Urban in this Strategy. These areas are listed in Table 20 and are proposed for removal from urban classification due to:

- Significant environmental constraints (e.g. regionally significant vegetation, wetlands, threatened flora/fauna, coastal or bushfire risks);
- Servicing limitations (e.g. infrastructure infeasibility or cost); and/or
- Inconsistency with the Strategy's objective of a consolidated, efficient urban form.

While these areas were previously zoned for urban purposes, they have all remained undeveloped for extended periods, often due to the very constraints identified. Their continued inclusion would risk reinforcing a fragmented settlement pattern, undermine infrastructure efficiency, and/or weaken the case for investment in priority urban areas.

It is acknowledged that past planning may have created expectations of urban development among affected landowners. However, the planning and environmental context has evolved significantly, particularly in response to the growing need for environmental protection, climate resilience, cost effective infrastructure delivery and sustainable land use patterns. Continued retention of these fragmented and constrained parcels in the urban land base would dilute the strategic focus of this Strategy and potentially lead to unsuitable long term outcomes.

Accordingly, it is appropriate to reclassify these areas to better reflect their environmental, servicing and planning constraints.

Table 20: Areas to be removed from urban classification

Land description	Zoning	Reason
<p>Furnissdale - Lots 9, 11, 48, 300, 301 Furnissdale Road</p> 	<p>Existing PRS zone: Urban</p> <p>Existing LPS4 zone: Residential, Commercial & Residential Development</p> <p>Proposed PRS zone: Rural</p> <p>Proposed LPS6 zone: Environmental Conservation</p>	<p>Environmental constraints including regionally significant vegetation, threatened and priority flora/ecological communities, conservation category and resource enhancement category wetlands, environmentally sensitive area, coastal processes risk, flood prone, bushfire prone, aboriginal cultural heritage</p>
<p>Pinjarra - Various lots bound by Sibbald Street, Roe Avenue, Wilson Road and Pinjarra Road</p> 	<p>Existing PRS zone: Urban</p> <p>Existing LPS4 zone: Service Commercial, Residential & Public Recreation/Conservation Reserve</p> <p>Proposed PRS zone: Urban</p> <p>Proposed LPS6 zone: Environmental Conservation</p>	<p>Environmental constraints including regionally significant vegetation, threatened and priority flora/ecological communities, conservation category wetland, environmentally sensitive area, aboriginal cultural heritage and bushfire prone.</p>
<p>Point Grey - Portion Lots 137, 138, 139, 672, 738, 1132 and 1133</p> 	<p>Existing PRS zone: Urban</p> <p>Existing LPS4 zone: Special Development</p> <p>Proposed PRS zone: Rural</p> <p>Proposed LPS6 zone: Tourism</p>	<p>Inconsistency with aim of consolidated urban form, servicing constraints and bushfire constraints</p>

<p>South Yunderup - Lot 2 South Yunderup Road</p> 	<p>Existing PRS zone: Rural & Urban Deferred</p> <p>Existing LPS4 zone: Rural</p> <p>Proposed PRS zone: Regional Open Space Reserve</p> <p>Proposed LPS6 zone: Nil (Environmental Conservation until PRS Reserve takes effect)</p>	<p>Environmental constraints including conservation category and resource enhancement category wetlands, environmentally sensitive area, buffer to threatened and priority flora/ecological community, regionally significant vegetation, coastal processes risk, flood prone, bushfire prone, mosquito prone.</p>
---	--	--

<p>Stake Hill - Lot 519 Stock Road</p> 	<p>Existing PRS zone: Urban</p> <p>Existing LPS4 zone: Rural</p> <p>Proposed PRS zone: Rural</p> <p>Proposed LPS6 zone: Environmental Conservation</p>	<p>Environmental constraints including regionally significant vegetation, environmentally sensitive area, threatened and priority flora and fauna, aboriginal cultural heritage and bushfire prone and mosquito prone</p>
--	--	---

4.2 Community, urban growth and settlement

4.2.1 Housing density and diversity

The Shire of Murray has a relatively low average residential density, reflecting its regional setting and historical development patterns. In addition over 90% of the Shire’s housing stock consists of single detached dwellings, with nearly half containing four or more bedrooms. The average household size is just 2.42 people and around two-thirds of households are occupied by only one or two people, indicating a clear mismatch between available housing types and actual community needs.

Increasing residential density is essential to achieving more efficient, sustainable and economically viable urban development. Higher density housing supports better use of limited urban land, protecting environmental assets and productive rural land. It also enables more cost effective infrastructure delivery, reduces transport and energy consumption and supports more walkable, healthy and socially connected communities. Importantly, higher densities underpin the viability of local businesses and public transport, particularly along identified transit corridors.

In alignment with the WAPC’s *Directions 2031 and Beyond* and its ‘Connected City’ model, the Planning Framework proposes an increase in average residential density to at least 15 dwellings per gross hectare of urban land. The Strategy focuses medium and higher density housing in and around existing town centres, neighbourhood centres, local centres and along the Pinjarra Road high priority transit corridor, in accordance with *State Planning Policy 4.2: Activity Centres and Liveable Neighbourhoods*. Minimum average residential densities to be applied in these areas are set out in Table 21.

Table 21: Minimum average residential densities

Location	Minimum average residential density (dwellings per gross urban hectare within the walkable catchment)
Pinjarra secondary activity centre	40+ (800m)
Ravenswood district activity centre	35+ (800m)
Pinjarra Road high frequency transit corridor	35+ (800m)
Neighbourhood centres (outside the transit corridor)	25+ (200m)
Local centres (outside the transit corridor)	25+ (200m)
Other urban areas	15+

The Planning Framework also establishes an urban infill target for the Shire of 630 dwellings by 2031, increasing to 1,080 dwellings by 2050. These infill dwellings are to be primarily delivered within and around the Pinjarra town centre and other targeted urban locations, based on an analysis of infrastructure availability, existing housing stock and the activity centre hierarchy. These areas are identified in Figures 19–21. Development within these areas must be supported by detailed planning that considers built form, local character, and amenity.

Figure 19 Pinjarra urban infill locations



Figure 20 North Yunderup urban infill location



Figure 21 South Yunderup urban infill location



Table 22: Distribution of infill housing

Location	Infill dwellings	Infill population
Pinjarra town	910	2002
Pinjarra North	100	220
North Yunderup	20	44
South Yunderup	50	110
Total	1,080	2,376

While the Strategy promotes higher densities in appropriate locations, it also recognises the importance of retaining provision for larger residential lots to support housing diversity, lifestyle choice and community retention, particularly for households seeking more space or preferring a lower density environment. Community expectations for larger lots remain strong in both rural residential and suburban contexts. The Strategy supports this by recognising the substantial areas already zoned for rural residential purposes and by allowing flexibility for larger lots in urban areas, provided that overall average density targets are still achieved. These larger lots should generally be located in more peripheral locations, away from activity centres and transit corridors which are identified for higher density development.

There is also a growing need to diversify the housing stock to reflect demographic trends such as smaller household sizes, an ageing population, affordability challenges, and the desire to attract and retain young adults. A broader mix of housing types across the various

settlements will better cater to a diverse community with varying income levels, household sizes and lifestyle preferences. This will help promote social inclusion, support ageing in place, and contribute to more vibrant, resilient, and adaptable communities.

To ensure implementation of the Strategy's residential density and diversity objectives, all structure plans must include a dedicated housing section that:

- Applies the minimum and average residential densities specified in this Strategy or relevant local planning policies and identifies mechanisms to deliver these densities at both subdivision and development stages;
- Demonstrates how subdivision design, lot configuration and built form will achieve the targeted residential densities while maintaining and enhancing local character, streetscape quality and residential amenity;
- Provides for a diverse mix of housing types and sizes, including smaller lots, grouped and multiple dwellings and adaptable or universally designed homes to meet the evolving needs of the community, with particular emphasis on increasing the supply of affordable housing for young adults, first home buyers, key workers, older residents and smaller households;
- Sets indicative targets for housing diversity and affordability, such as a percentage of lots or dwellings suited to low to moderate income households and outlines implementation measures (e.g. development incentives, density bonuses or partnerships) to help achieve these outcomes;

- Identifies the infrastructure upgrades, service capacity and public realm improvements (e.g. open space, pedestrian and cycle networks, tree canopy, and community facilities) required to support increased residential density and diverse housing options, and outlines how these will be coordinated and delivered through subdivision design, development contributions or other mechanisms.

Figure 22: Typical single residential dwelling



Figure 23: Typical cottage dwelling



4.2.2 Landscape and built form character

4.2.2.1 Landscape character

The Shire of Murray features a diverse landscape that ranges from flat rural plains to forested hills, with its most exceptional features being the Peel-Harvey Estuary, the Murray and Serpentine River systems and the Darling scarp and forested hills. These areas define the region's identity, providing stunning panoramic views, high ecological value and a strong cultural and recreational significance. The estuary and rivers form a complex landscape of open water, mudflats, densely vegetated banks and winding waterways, creating an environment that is both visually and environmentally unique. The hills provide a dramatic setting with steep slopes, dense forests and rugged terrain creating a visually striking environment, dominated by mature forest. Together with a mix of natural, agricultural, industrial and urban environments, these landscapes shape the region's visual identity and play a crucial role in defining the experience of residents and visitors.

The Shire can be divided into five key landscape character units, each of which have distinct qualities and challenges posed by ongoing development and land use change.

The Rural Coastal Plain is characterised by its flat, open terrain, which has been extensively cleared for agriculture and grazing. The landscape is defined by scattered trees, including remnant Jarrah, Marri and Wandoo woodlands, particularly along fence lines, roads, and watercourses. While the vast open views contribute to the region's rural character, they also expose infrastructure such as high voltage power lines and industrial developments, which can disrupt the visual appeal. The Murray and Serpentine Rivers, along with their lakes and tributaries, add scenic and ecological value, while rural estates and

industrial pockets, such as the Peel Business Park, introduce contrasting elements. The challenge in this area is to manage development, vegetation loss, and infrastructure development to maintain its open, pastoral qualities.

Figure 24: Landscape character units

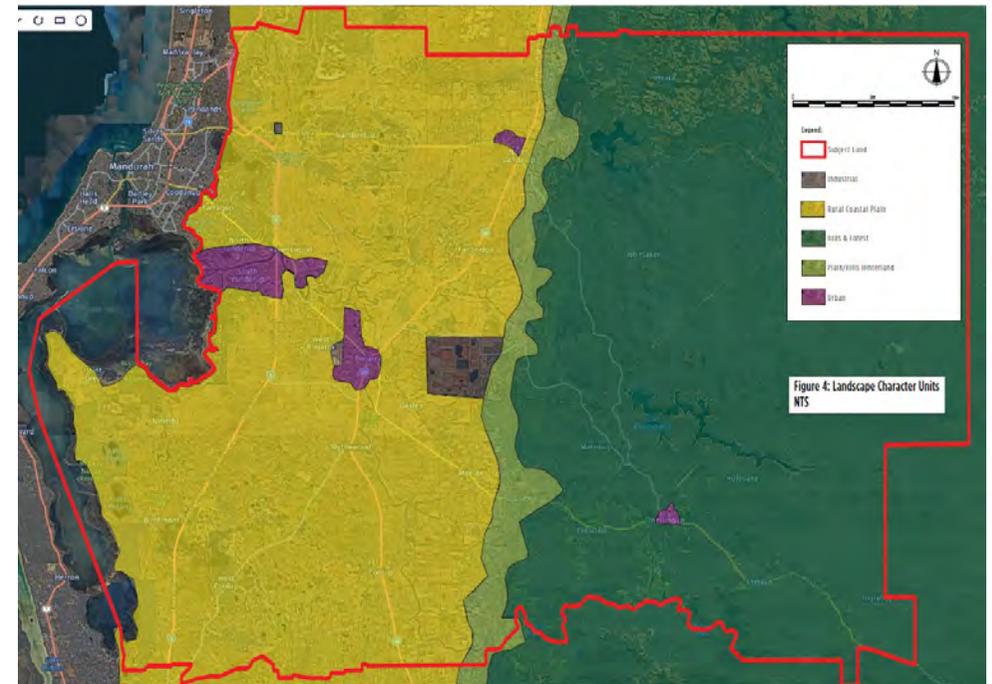


Figure 25: Rural coastal plain landscape character unit



In contrast, the Hills and Forest landscape, covering the Darling Scarp and the elevated Darling Range, offers a more enclosed and dramatic setting. The steep slopes, dense forests and rugged terrain create a visually striking environment, dominated by mature Jarrah and Marri woodlands, with Wandoo and Paperbark trees along watercourses. This area is primarily conserved as state forest and national parks, supporting tourism and recreation through attractions like the Bibbulmun Track, Munda Biddi Trail and a range of other trail infrastructure. The visual experience here is defined by sweeping panoramic views from elevated lookouts and roads, but the integrity of these landscapes is at risk from rural residential development, clearing for infrastructure and mining, and bushfire management activities. Managing ridgeline visibility, forest fragmentation and development impacts is crucial to preserving the pristine, natural character of the hills and forested areas.

Between these two dominant landscapes lies the Plain/Hills Hinterland, a transition zone featuring gently rolling foothills, scattered vegetation, and rural living areas. This area retains more remnant vegetation than the coastal plain, with a mix of pasture and bushland, particularly along the Murray River and its tributaries. While rural properties are dispersed across the landscape, the increasing demand for rural living development poses challenges in maintaining vegetation cover and minimising the visual impact of new housing. Buildings with light coloured or reflective roofs can be highly visible, disrupting the otherwise natural tones of the environment. The hinterland's scenic quality depends on careful development controls and the retention of native vegetation to soften new buildings and infrastructure.

The Industrial Areas within the Shire, including the Alcoa alumina refinery in Oakley, the Pinjarra Industrial Area and Peel Business Park, present a stark contrast to the surrounding natural and rural

landscapes. These areas feature large industrial buildings, storage facilities, and excavation sites, often with little vegetation screening. The visibility of these sites from major transport routes and surrounding rural areas requires effective buffering and landscape integration measures. Without proper planning, industrial developments can dominate the visual character of the region and detract from the scenic experience of nearby roads and settlements.

Figure 26: Hills and forest landscape character unit



Figure 27: Plain/hills hinterland landscape character unit



Figure 28: Industrial (Oakley) Landscape character unit



Figure 29: Industrial (Peel Business Park) Landscape character unit



The Urban Areas, including Pinjarra, Dwellingup, North and South Yunderup, and North Dandalup, each have distinct visual characteristics shaped by their history, built form, and surrounding landscapes. Pinjarra, the largest town, retains a mix of heritage buildings and modern developments, with the Murray River running through its centre, creating a scenic setting. Dwellingup, in contrast, has a strong bushland character, with small, rural-style houses and a town centre that serves as a gateway to forest based tourism. The canal settlements of North and South Yunderup feature waterside homes with private jetties, blending urban and natural elements. North Dandalup and Coolup, smaller rural towns, offer open views to the scarp and retain a low density, village like character. The challenge for these urban areas is to ensure that new development integrates with the existing townscapes, protecting heritage buildings, reinforcing local identity, and maintaining the relationship between built form and natural features such as rivers, forests, and estuaries.

Figure 30: Urban (Pinjarra) landscape character unit



Figure 31 Urban (North Dandalup) landscape character unit



Figure 32: Urban (Dwellingup) landscape character unit



Figure 33: Urban (Riverside) landscape character unit



Figure 34: Urban (South Yunderup canals) landscape character unit



Figure 35: Urban (Ravenswood) landscape character unit



The Shire's landscape is experienced in multiple ways, whether from high speed travel along highways, slow journeys along scenic roads, or immersive experiences on walking trails and waterways. Key risks to its visual quality include vegetation loss, intrusive developments, infrastructure impacts (such as power lines and roads) and unregulated signage. Effective landscape management is essential to protect view corridors, scenic lookouts, and the natural beauty of the region. The Strategy should provide for clear development guidelines, scenic protection measures and urban design controls to ensure that future growth enhances, rather than diminishes, the valued landscapes of the Shire of Murray.

4.2.2.2 Built form character

The Shire of Murray is a diverse place that balances historic townsites, rural landscapes and emerging suburban communities. The defining elements of the Shire's character includes its strong connection to water bodies, such as the Murray River and Peel Inlet, extensive native bushland and a rich agricultural and industrial heritage. Each settlement within the Shire contributes to this overall identity, whether through historic country town charm, timber industry history, canal based waterfront living, or equestrian and agricultural traditions.

Built form character is a key aspect of what makes the Shire of Murray and each settlement within the Shire distinct and valued by residents. The challenge for future development will be to ensure that new development respects and enhances the unique character of each place rather than allow it to be eroded by unsympathetic new development.

Key built form elements include:

- Urban structure: The layout of streets, lot sizes and connectivity.

- Architectural styles: Traditional and contemporary styles that define each settlement.
- Setbacks and interfaces: The relationship between buildings and the streetscape.
- Materials and colours: The use of materials such as brick, timber, metal, and their associated colour palettes.
- Landmarks and significant features: Heritage buildings, river reserves, forests, and other defining elements.

Figure 36: Overall Shire of Murray built form character



A character description and planning direction for each town or settlement area within the Shire is outlined below.

Pinjarra

Pinjarra's town centre embodies the quintessential Western Australian country town, featuring a mix of historic buildings, informal streetscapes and a strong connection to the Murray River. The heritage precinct

reinforces this identity with its collection of historically significant buildings and gardens, offering insight into the town's past. The residential areas surrounding the town centre are characterised by single dwellings on large suburban lots, often with verandas, gardens, and pitched roofs, creating a well landscaped and community focused environment. The transport corridors leading into Pinjarra currently lack a cohesive identity, with car based commercial developments dominating the streetscape. Future development should aim to enhance these entry points, reinforcing the town's welcoming and historic character while ensuring that new buildings complement existing architectural styles and landscape features.

Figure 37: Pinjarra built form character





Dwellingup

Nestled within a dense forest and shaped by its timber industry heritage, Dwellingup has the most distinct character of all the Shire's settlements. The town is defined by red soil, towering trees and a collection of well maintained timber cottages, often featuring deep verandas and robust detailing. The main street functions as the social and commercial hub, blending tourism and local community life. With an increasing appeal as a visitor destination and residential area, future development should be carefully managed to preserve the town's rustic and historic feel, ensuring that new buildings and infrastructure remain sympathetic to the surrounding landscape and built form traditions.

Figure 38: Dwellingup built form character



Ravenswood

Ravenswood presents a contrast between its older core and the surrounding contemporary suburban estates. Despite its prime location along the Murray River, public access and visibility of the river are limited, contributing to a sense of isolation. The prevailing suburban character lacks a distinct identity, making it difficult to differentiate Ravenswood from other outer-Perth suburbs. However, the use of soft and hard landscaping, as well as natural materials in some areas, suggests opportunities for reinforcing a stronger garden suburb character. Future growth should focus on improving connectivity, enhancing riverfront access and incorporating more thoughtful landscaping and built form elements to foster a unique sense of place.

Figure 39: Ravenswood built form character



South Yunderup

South Yunderup has two distinct areas, the original settlement area incorporating the canal estates and delta islands and the more recent Austin Lakes estate. The original settlement area is a place shaped by its connection to water, with a clear contrast between its streetscapes and waterscapes. While canal front homes are often well designed and well maintained, the street facing aspects of the suburb tend to feel less cohesive, dominated by large garages, boats, and caravans. The curvilinear urban layout, defined by canals and limited connectivity, reinforces a sense of individuality over collective community identity. Built form on the delta islands is modest and reflective of their history as fishing and holiday retreats, with lightweight, single storey, and often elevated structures made from timber and corrugated metal. Simple gabled or skillion roofs, large verandas, minimal infrastructure and private jetties emphasise a relaxed, nature focused lifestyle that blends with the riverine environment. Although South Yunderup lacks a strong central focal point, its appeal lies in its recreational and leisure oriented lifestyle. Future planning should focus on enhancing streetscape

appeal, improving public access to the waterways and strengthening the role of the local centre to create a more defined heart for the community.

Figure 40: South Yunderup original settlement area built form character



Austin Lakes, within South Yunderup is a contemporary, master planned community that has developed a distinctive identity through controlled design guidelines and a well structured layout. The suburb is predominantly residential, centred around a landscaped lake and parkland that provides a focal point for the community. The built form is uniform, characterised by suburban dwellings with pitched and hipped roofs, neutral toned materials and an emphasis on neatly maintained streetscapes. While the estate successfully creates a cohesive suburban environment, its character is largely self referential, rather than responding to the surrounding rural setting. Future planning should explore ways to strengthen Austin Lakes' connection to the broader

landscape and ensure that the next stages of development maintain a strong sense of place.

Figure 41: Austin Lakes Estate built form character



North Yunderup

A quieter and more relaxed counterpart to South Yunderup, North Yunderup embodies the character of a mid-20th century Western Australian getaway destination. Stretching along the Murray River, the settlement is defined by two distinct areas, the western section with direct riverfront lots and the eastern section featuring a well-vegetated foreshore park. The landscape, characterised by water, mature trees, and simple, rustic architecture, creates a relaxed and informal atmosphere. While some original river shacks remain, new development has introduced a mix of styles, maintaining a low scale residential feel. Planning efforts should focus on reinforcing North Yunderup's relaxed riverine village character, improving local amenities and ensuring future development respects the existing built form and landscape setting.

Figure 42 North Yunderup built form character



North Dandalup

Nestled at the foot of the Darling Scarp and surrounded by agricultural and rural residential land, North Dandalup is a rural settlement with a distinct and charming identity. The town consists of two distinct areas: the original townsite, with a traditional grid layout and modest cottages, and the rural residential precinct, characterised by larger lots and open landscapes. The community enjoys a peaceful lifestyle, with well maintained gardens, tree lined streets, and striking views of the hills to the east. The railway reserve and South Western Highway form defining elements of the town's structure, although the highway lacks the intimacy of a traditional main street. With its strong potential for growth, North Dandalup could evolve into a more self-sufficient rural village, provided that future development carefully integrates with the existing built form, landscape, and character-defining elements.

Figure 43: North Dandalup built form character



Furnissdale

Furnissdale is a semi-rural settlement with a relaxed and unstructured feel, shaped by its location along the Serpentine River. Many properties feature informal landscaping, large trees, and simple dwellings, contributing to an easy going character. The area is popular with both permanent residents and holiday homeowners, reinforcing its recreational and lifestyle appeal. However, a lack of strong urban structure and limited local services create a challenge for long term sustainability. Future planning should focus on improving infrastructure, enhancing river access, and maintaining the informal, nature oriented character that makes Furnissdale unique.

Figure 44: Furnissdale built form character



Coolup

Coolup is a small, agricultural focused settlement with a strong rural identity. The town is characterised by grazing properties, open paddocks and modest country homes. The flat landscape is punctuated by mature trees and wide open vistas, reinforcing its pastoral charm. The built form remains simple, with homes and farm structures designed for functionality rather than aesthetics. Coolup's future direction should aim to preserve its agricultural character while improving local amenities and ensuring that any new development respects the area's established rural qualities.

Figure 45: Coolup built form character



Barragup

Situated between the urban areas of Mandurah and the rural landscapes of the Shire of Murray, Barragup is a semi-rural locality that blends lifestyle properties with equestrian and small agricultural uses. The area is defined by large lots, tree lined streets and a mix of traditional and contemporary rural style dwellings. Future planning should prioritise the retention of open space, rural character and equestrian friendly infrastructure to maintain Barragup's distinct identity.

Figure 46: Barragup built form character



Character statements for each settlement area to be used to inform future planning are set out on Figure 47.

Figure 47: Character statements for each settlement

Austin Lakes

Character statement

As a master-planned community, Austin Lakes has an identifiable sense of place that has arisen from the developer having a high level of control over the layout, landscape, and the appearance of the buildings through the master-planning process and associated guidelines. To this end, the character is more self-referential rather than being a response to any pre-existing character. The character of Austin Lakes could be described as that of a contemporary and well-mannered pocket of suburbia in a rural setting.



Dwellingup

Character statement

Dwellingup has the most evident character of all the settlements in the Shire of Murray. The character is derived from its location nestled in the forest, the topography and its historic function as a centre for the local timber industry. Dwellingup has trees and red soil in every direction and in every view. Much of the original timber-worker housing remains, augmented by more solid 'urban' buildings in the main street of the town centre. As a desirable tourism destination and place to live, the pride of the residents is reflected in generously landscaped gardens and well-maintained building stock.



Pinjarra town centre

Character statement

The Pinjarra town centre is a quintessential WA country town and one of the closest to Perth. The desirable character of the town centre is largely informed by the informal qualities of the main street, historic buildings, wide streets and the adjacency to the Murray River. The character of the town centre is reinforced by the adjacency of the heritage precinct to the north that somewhat overlaps with the town centre, and which has its own character statement.



Barragup

Character statement

Barragup is a conveniently located retreat for living a rural lifestyle without the hard work of running a farm. It's a place of relative tranquility on the banks of the Serpentine River and lake system. Ranch-style houses and sheds sit on large open grassed lots dotted with trees with a constant background of trees in every direction, and where people have the space to pursue rural activities.



Furnissdale

Character statement

Furnissdale is a hidden gem and a quintessential WA getaway place. With an extensive open and public foreshore to an attractive stretch of the Serpentine River, every street faces or leads to the river. Off the beaten track and with no local services in the townsite, the pace of life is quiet. Many of the original shacks remain, to the point that arriving in Furnissdale feels like a trip back in time. The architecture is simple and rustic, and buildings nestle in a well-treed environment, adding to the rural character of the place.



Ravenswood

Character statement

Whilst there is an older core to Ravenswood, the prevailing character is one of contemporary suburbia. Several recent land subdivisions around the older core have effectively turned Ravenswood into a satellite of Perth's suburban fringe. Despite being adjacent to an attractive stretch of the Murray River, there is little in the way of public access to, or visibility of, the river, which contributes to the sense of Ravenswood being an isolated suburban cell. With little in the way to distinguish itself from other suburban places, Ravenswood is a place in need of a defining character. However, there are some clues as to how that character might develop if properly nurtured.



Coolup

Character statement

Coolup is a hidden and unpolished gem within the Shire of Murray. Not particularly evident from the SW Highway and not a place that people generally pass through, it's almost like the village that time forgot. Like North Dandalup it is a place of two parts – the original townsite clustered around the rail stop and the surrounding rural living area. The townsite is diverse and quirky in its character, with the suggestion of an alternative spirit in the community. Again, like North Dandalup, it is surrounded by agricultural land but the avenues of windbreak trees in Coolup do more to define the character of the place.



North Dandalup

Character statement

North Dandalup is an overlooked gem of a place nestled at the foot of the Darling scarp and surrounded by agricultural land. It is a place of two distinct parts – the townsite and the rural living area on either side of the railway line. It is a laidback place that offers a peaceful life but with the convenience of good accessibility by road and rail. Its charm lies in modest cottages, well-tended gardens, tall trees, animals in paddocks, and the ever-present vistas to the hills to the east. As real estate agents might say, "this place has great potential".



South Yunderup

Character statement

South Yunderup is a place to escape to, and it's all about the water. It has a dual character with a strong contrast between the streetscapes and the waterscapes. The streetscapes are generally suburban in nature and often lack the expressive nature of other places because houses orientate themselves to the water instead, and the streetscape is often occupied by the 'big toys' – caravans, boats and the trucks to pull them. The inherent nature of canal development results in limited connectivity and, as such, the place feels like a collection of homes where everyone does their own thing rather than feeling like a collective community of place with a distinctive and appealing heart. In this respect it is a place of diversity where anything goes, but it is not without charm and interest, especially where water is present.



4.2.3 Cultural heritage

The Shire of Murray has a rich and diverse cultural heritage, encompassing both Aboriginal and European histories that have shaped the region's landscape, settlement pattern and cultural identity. This heritage is integral to understanding the Shire's past.

The Bindjareb Noongar people are the traditional custodians of the land within the Shire of Murray. Their connection to the land, rivers and estuary dates back tens of thousands of years, with cultural and spiritual links to sites of environmental and social significance. The Murray River (Bilya) and Peel-Harvey Estuary (Djilba) are particularly important, serving as sources of food, trade and ceremonial practices. Aboriginal heritage sites within the Shire include camping areas, fish traps, scarred trees and burial sites.

The Peel region, including the Shire of Murray, is also significant within the broader Dreaming narratives of the Noongar people. These narratives, or creation stories, are fundamental to Noongar culture and identity. They describe the actions of ancestral spirits who created the landforms, waterways, animals, and plants, establishing the laws and customs that continue to guide Noongar people today. The estuary and rivers are, in particular, deeply embedded in these stories, with its origins and pathways believed to be shaped by powerful spirit beings. Such narratives are passed down through generations via oral storytelling, ceremonies, and cultural practices, reinforcing a deep, ongoing spiritual connection to Country.

European settlement began in the early 1830s, with Thomas Peel's settlement scheme leading to the establishment of Pinjarra, one of the earliest colonial towns in Western Australia.

These early years were characterised by conflict with the local aboriginal population, culminating in one of the country's darkest events, the Pinjarra Massacre in 1834.

The Shire became a key centre for agriculture, timber milling and transport, particularly with the development of the railway network in the 1890's which enabled transport for a developing, largely international timber industry centred on Dwellingup in the early part of the 20th century.

Prominent families have contributed to the social heritage of the area including the McLarty family which produced three Members of Parliament, one of which Sir Ross, who went on to become Premier of the State from 1947 to 1962.

Aboriginal cultural heritage is protected under the *Aboriginal Heritage Act 1972*. The Aboriginal Cultural Heritage Inquiry System, indicates 195 recorded Aboriginal cultural heritage places within the Shire. It will be important to engage with traditional owners when considering planning proposals which may affect places of Aboriginal Cultural Significance to ensure that these places are appropriately identified, protected and celebrated as the Shire grows.

Dwellingup Nursing Post	Lot 556 (No. 2510) Del Park Road, Dwellingup	B
Marginata Crescent Heritage Area	Dwellingup townsite, east of town oval, Dwellingup	
Phillipson's House	Lot 220 (No. 203) Holyoake Road, Dwellingup	B
RSL Hall, Dwellingup	R32650, Lot 48 (No. 39) McLarty Street, Dwellingup	B
Creaton Estate	Lot 219 (No. 351) Paterson Road, Fairbridge	A
Fairbridge Cemetery	R21290 Lot 2464 Pipeline Road, Fairbridge	A
Fairbridge Village	Lot 4 (No. 120) Fairbridge Road, Fairbridge	A
Marrinup POW Camp	4 km northwest of Dwellingup, Forest Block 23, Marrinup	A
Marrinup Townsite (ruins)	End of Grey Road, Marrinup	B
Burnside Homestead	Lot 21 (No. 545) Coolup Road East, Meelon	B
Culjum House	Lot 75 Carrabungup Road, Nirimba	B
Goldmine Hill	R21041, Lot 1376 Whittakers Road, North Dandalup	B
Pinjarra Massacre Memorial Area	R1032, Lot 301 McLarty Road, Pinjarra	A

Cantwell Park	R29516, Lots 223 and 358 George Street, Pinjarra	B
Dr Joyce's House	Lot 3 (No. 11-13) McLarty Road, Pinjarra	B
Edenvale	R36703, Lot 316 George Street, Pinjarra	A
Exchange Hotel	Lots 85-8 (No. 12) George Street, Pinjarra	A
Hotham Valley Tourist Railway	R45518, Lots 361-3 (No. 1) Fimmel Lane , Pinjarra	A
Liveringa & Well	R36703, Lot 316 George Street, Pinjarra	A
Masonic Hall	Lot 3 (No. 1922) Pinjarra Road, Pinjarra	A
McLernon House & Well	Lot 11 (No. 40) Bedingfeld Road, Pinjarra	B
Miss Adam's House	Lot 190 (No. 6) George Street, Pinjarra	B
Old School & Teacher's Quarters	Lots 201-2 (No. 2 & 8) Henry Street, Pinjarra	A
Paterson's Cottage	Lot 10 (No. 305) Paterson Road, Pinjarra	B
Pinjarra Court House	Lot 388 (No. 22) George Street, Pinjarra	A
Pinjarra Heritage Area	Pinjarra Town Centre, George Street, Pinjarra	

Pinjarra Post Office	Lot 216 (No. 20) George Street, Pinjarra	A
Pinjarra Railway Station Precinct	R45518, Lots 361-3 Pinjarra-Williams Road, Pinjarra	A
Pinjarra War Memorial	R315, Lot 57 (No. 1915) Pinjarra Road, Pinjarra	B
Pinjarra (West) Heritage Area	Portion of James and Forrest Streets, Pinjarra	
Premier Hotel	Lot 200 Pinjarra-Williams Road, Pinjarra	A
Redcliffe Barn, Cottage & Well	Lot 9010 Sutton Street, Pinjarra	B
Road Board Offices	Lot 220 (No. 28) George Street, Pinjarra	B
St John's Church	Lot A Henry Street, Pinjarra	A
St Joseph's Convent	Lot 1000 (No. 40-52) George Street, Pinjarra	A
Taylor's Supermarket	Lots 50-1 (No. 8-10) George Street, Pinjarra	B
Ravenswood Barn	Lot 68 (No. 32) Gibbs Circuit, Ravenswood	B
Ravenswood Hotel	Lot 65 Lloyd Avenue, Ravenswood	B

Figure 49: Local Heritage Survey – Category A & B places

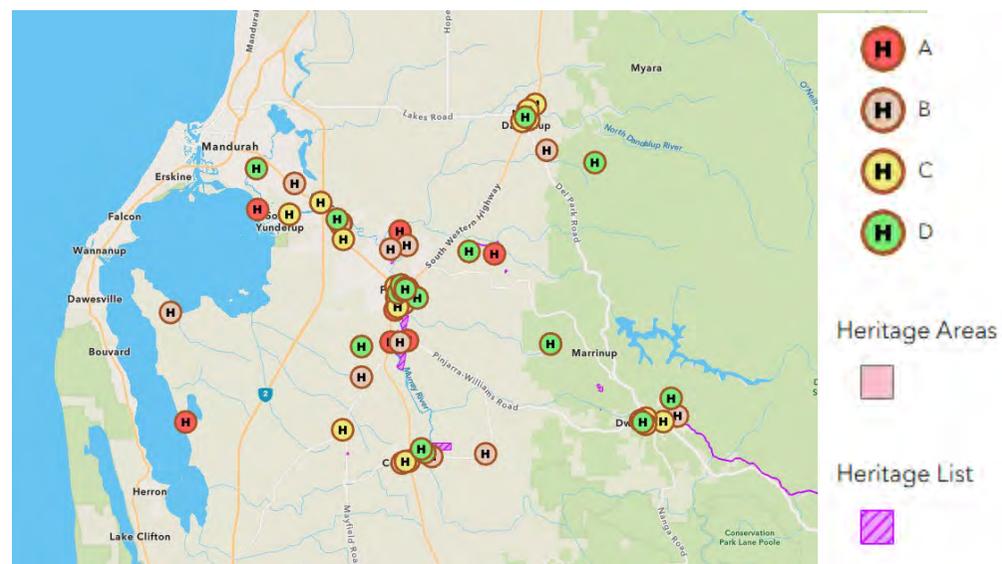


Figure 50: History of the Murray

HISTORY OF THE MURRAY

The Murray Region has been the ancestral home of the Bindjareb people of the Noongar Nation for many thousands of years. As the traditional custodians of the land, the Murray region's identity and sense of place is strongly linked to its rich indigenous history.

THE MURRAY RIVER

In search of suitable land for agriculture as part of early European settlement, the Region's rich soils and river system ensured its identification as a place that gave hope for farming. The Murray River was given its European name at this time and the land was granted to Thomas Peel.

PINJARRA SETTLEMENT

Pinjarra was established as one of the State's first colonial settlements and became a thriving town servicing the region and travellers commuting between Perth and the South-West.

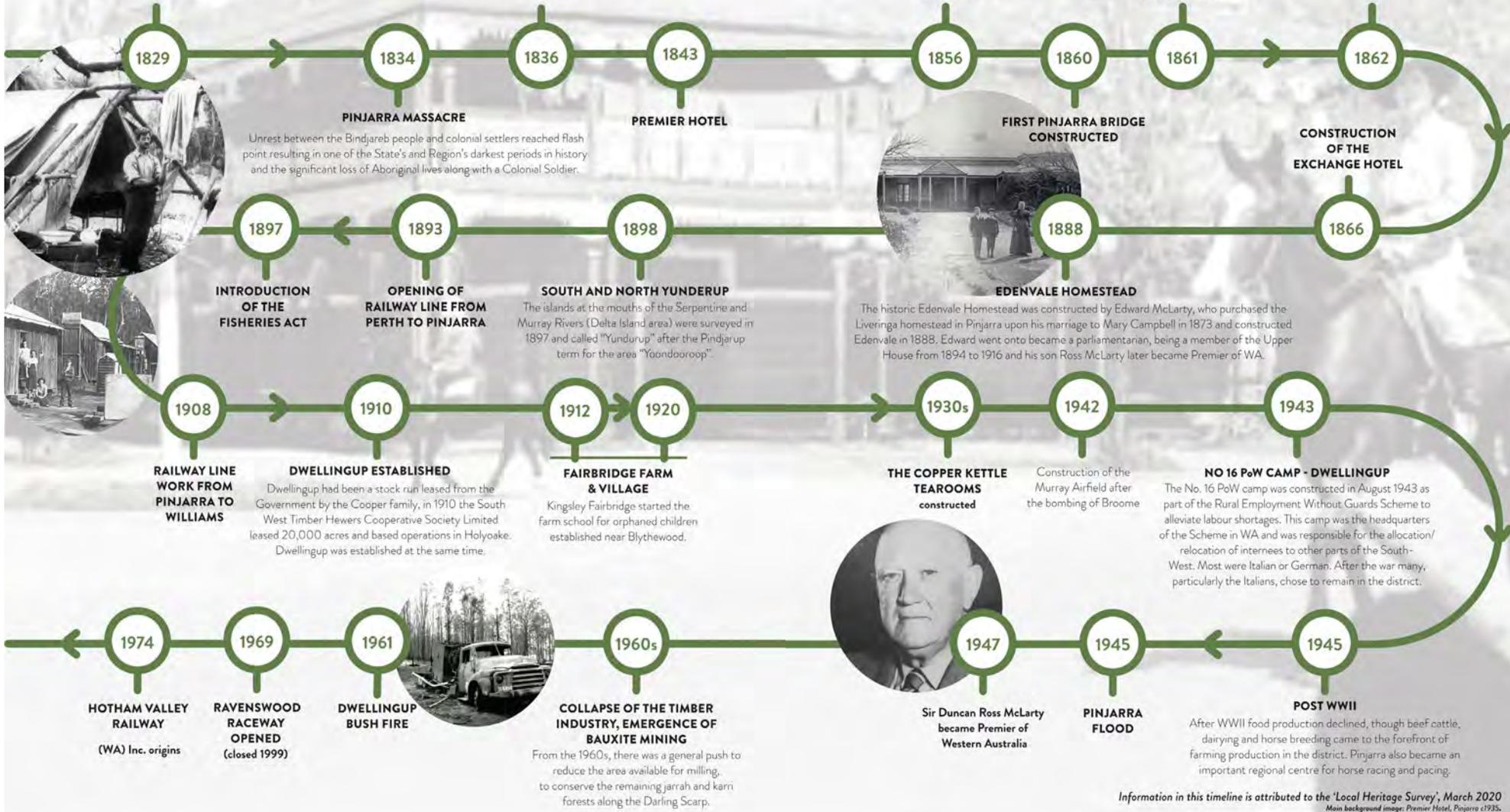
FIRST ESTATE - CREATON ESTATE

Construction of the main house began around 1856, Fourteen other houses were also later built on the 20,000 acre [8,000 hectares] land grant... In time a school was established and a hotel was built. The road to Mandurah passed through the property

RAVENSWOOD HOTEL

Captain John Thomas and his family moved to the Ravenswood area in the early 1860s. After a large flood in 1862, Thomas built a large stately home on the eastern bank of the Murray River; known as "Ravenswood Hall", now known as the iconic Ravenswood Hotel.

ST JOHNS CHURCH (deconsecrated 2020) & BLYTHEWOOD HOMESTEAD



Information in this timeline is attributed to the 'Local Heritage Survey', March 2020
Main background image: Premier Hotel, Pinjarra c1935.

4.2.4 Rural land use

The rural areas of the Shire support a mix of land uses, with traditional extensive agriculture such as cattle and mixed grazing remaining prominent, alongside more intensive rural pursuits including feedlots, piggeries, poultry operations, nurseries, basic raw material extraction, and low impact rural tourism. Parts of the rural area have also accommodated rural residential estates and an increasing presence of equine-related activities. The coastal plain portion of the Shire's rural land lies within the environmentally sensitive Peel-Harvey Coastal Plain Catchment, where land use is constrained by seasonal inundation, high water tables, low lying topography and generally poor nutrient retaining soils. These conditions make conventional in-ground intensive agriculture and higher discharge land uses less viable without strict environmental safeguards.

The viability of traditional farming in the Shire has been significantly affected by economic shifts over recent decades, including deregulation of the dairy industry, rising land and input costs, changes in commodity markets and generational change. This has resulted in declining numbers of multi-generational farming families and increased fragmentation of rural land for hobby farming and boutique operators. While this transition has supported the emergence of some lifestyle farming, agri-tourism and niche horticultural ventures, it has also contributed to a decline in the scale and resilience of conventional broadacre farming.

Despite these challenges, agriculture remains a cornerstone of the Shire's economy, providing essential food production, employment opportunities and value adding potential through regional processing and agribusiness. The Shire's strategic location on Perth's peri-urban fringe and access to major transport corridors, including the Forrest

Highway and South Western Highway, enhances its competitive advantage for diverse forms of agriculture. To ensure rural production remains viable into the future, planning must support innovation, diversification and environmentally responsible intensification of agriculture. In particular, closed-loop and hydroponic intensive systems that minimise nutrient export and water use are considered suitable in appropriate locations.

Land use conflict is an ongoing issue in rural areas, particularly where incompatible uses such as sensitive residential development encroach on productive land. Fragmentation of land through inappropriate rezoning or ad-hoc rural living development can compromise the long term availability of land for agriculture. To protect the function and viability of rural land, the further fragmentation should be limited and non-compatible land uses restricted, particularly in designated Priority Agricultural Precincts such as those surrounding Dwellingup. Rural living has a place in the land use mix but should be confined to areas already identified through the Planning Framework to avoid inefficiencies in infrastructure provision and the erosion of productive land.

The Shire's rural areas are also experiencing growing interest in equine-related land uses, reflecting the strong and expanding role of both the racing and recreational horse industry. The development of the Murray Regional Equine Centre, along with the established Pinjarra Park Racecourse and Pinjarra Paceway, reinforces the need to accommodate stabling, training, and agistment land uses within the rural zone. Land use flexibility that supports these uses and tailored special use zones for the equine racing and recreation facilities are needed to enable a range of complementary equine uses while managing environmental and amenity considerations.

Preserving the rural character and natural environmental assets of the Shire remains a critical objective. The community places high value on the scenic landscapes, biodiversity and ecological function of the rural environment, and there is strong support for initiatives that assist landowners in environmental restoration and stewardship. Incentives and management tools, such as a new environmental conservation zone for environmentally constrained land in the rural zone and supportive non-planning initiatives such as restoration contributions and private land conservation support, can play a key role in achieving these outcomes. Importantly the Environmental Conservation zone can also be applied to protecting small, isolated land parcels that have been effectively left over from past development, often on the fringes of urban areas or adjacent to river systems. These lots, while still zoned Rural, no longer function within a productive rural context and are significantly constrained by environmental factors such as vegetation, poor soils, high water tables or flooding risk. Zoning these areas recognises their environmental value, avoids land use conflicts and supports their long-term conservation and integration into the broader natural and urban landscape.

Importantly, rural planning must resist the inappropriate location of industrial uses that pose environmental or amenity risks. Uses such as tanneries, bio-fertiliser plants and other agri-industrial proposals are generally not considered suitable within the Shire's rural zone due to the relatively small size of landholdings, the risk of land use conflict and potential off site impacts. Such uses are better directed to appropriately zoned and serviced industrial or other specifically tailored precincts, such as Keralup.



4.2.5 Parkland and community facilities

4.2.5.1 Parkland

The Shire of Murray has an extensive parkland network. This comprises the following categories:

1. Regional open space, which is reserved for this purpose under the Peel Region Scheme, typically for active and passive recreation, conservation and environmental protection purposes. Examples of Regional Open Space reserves within the Shire include Nine Mile Lake Nature Reserve, Coolup Gun Club Reserve and North Dandalup Dam Reserve.
2. Foreshore reserves, which is land that abuts a river, creek, lake or estuary. The primary function of these reserves is for conservation, environmental protection, flood protection and passive recreation. These reserves are also reserved for Regional Open Space under the Peel Region Scheme. Key examples of foreshore reserves within the Shire include the Kooljerrenup Nature Reserve, McLarty, Mealup, Austin Bay Reserves, Murray and Serpentine River foreshores, including Murray Delta Island reserves, North Yunderup Conservation Area, Black and Goegrup Lake reserves, Ravenswood Peninsula reserve and Wilgie Creek reserve.
3. Public open space (POS), which is located within urban areas for public recreation and local environmental conservation purposes. It is typically contributed by the developer as part of the land subdivision process. Overall, 10% of the net subdivisional area is ceded by the developer, comprising a minimum of eight percent for active and passive recreation purposes, with up to two percent

that may be allocated for the protection of local natural areas, cultural features or urban water management measures.

An analysis of the Shire of Murray's developed urban areas shows a varied distribution of POS. While areas such as Pinjarra Town exceeds the overall 10% POS requirement, other areas like Coolup and North Yunderup fall short. When considering other publicly accessible regional open space and foreshore reserves however, all urban areas have more than the 10% area of open space.

Table 24: Public open space distribution

Settlement Area	Area (Ha)	POS Area (Ha)	% POS	ROS Area (Ha)	% ROS	Total Open Space (Ha)	% Total Open Space
Pinjarra							
- Town	162.1	33.8	20.9	56.8	35.0	90.6	55.9
- North	74.2	20.7	27.9	0.0	0.0	20.7	27.9
- Murray River Country Estate	66.2	6.1	9.2	40.5	61.2	46.6	70.2
South Yunderup							
- Main locality	169.1	17.5	10.3	21.1	12.5	38.6	22.8

- Austin Lakes Estate	75.3	8.7	11.6	0.0	0.0	8.7	11.6
-----------------------	------	-----	------	-----	-----	-----	------

North Yunderup	66.8	3.6	5.4	14.8	22.2	18.4	27.5
-----------------------	------	-----	-----	------	------	------	------

Ravenswood	114.5	13.0	11.4	11.3	9.9	24.3	21.2
-------------------	-------	------	------	------	-----	------	------

North Dandalup	27.2	4.5	16.5	3.6	13.2	8.1	29.8
-----------------------	------	-----	------	-----	------	-----	------

Dwellingup	49.6	5.4	10.9	3.3	6.7	8.7	17.5
-------------------	------	-----	------	-----	-----	-----	------

Coolup	5.3	0.2	3.8	2.0	37.7	2.2	41.5
---------------	-----	-----	-----	-----	------	-----	------

4.2.5.2 Sport and Recreation Infrastructure

The Shire of Murray Sport and Recreation Infrastructure Plan 2024 aims to guide the development and enhancement of sport and recreation facilities across the Shire to meet the needs of its growing population. The plan focuses on improving existing infrastructure, expanding indoor and outdoor recreational spaces and ensuring equitable access to quality sport and recreation facilities for the growing Shire community.

Sport and Recreation Precincts

Sport and Recreation Precincts that combine outdoor active and passive facilities in one location are recommended under the Plan to maximise land use efficiency and provide for a diverse range of users. Where ever the population needs allow, the distribution of sport and

recreation precincts has been planned so that the precincts provide for at least two active playing surfaces. This will reduce overall infrastructure and management costs and help to support sporting club sustainability, compared to single oval precincts.

The Sir Ross McLarty Sports Precinct in Pinjarra will continue to serve as the Shire’s primary district level sporting precinct. A masterplan has been endorsed for this precinct which provides for multiple sports with active playing fields, lawn bowling greens, a skate park and associated amenities such as clubrooms, spectator facilities, pathways and passive recreation facilities.

To service the growing western portion of the Shire, a new district level sporting precinct will also be necessary. This is planned to be located on the currently undeveloped 57 hectare regional open space site adjacent to the intersection of Kwinana Freeway and Old Mandurah Road. The Shire’s population forecast indicates that a minimum of two ovals and supporting infrastructure will need to be delivered in this precinct by 2036, expanding to three ovals by 2051. This site is expected to expand into a regional scale sport and recreation precinct in the longer term future as the surrounding population continues to grow beyond 2051.

Two neighbourhood sport and recreation precincts are also planned in Pinjarra (North), one either side of the railway line. These will be 10-12 hectares in area with minimum dimensions of 350m by 300m. One precinct is planned to be co-located with the Caroola Primary School and the other co-located with a future government secondary school. Population forecasts indicate that one of these precincts will be needed by 2041, with the second by 2051.

The existing active playing field at the northern end Caroola Avenue is poorly located in relation to its catchment population and has insufficient

land area to accommodate a second playing surface. The site is currently underutilised and would be superfluous to need with the second new neighbourhood sport and recreation precinct. A land swap arrangement is therefore proposed to assist in securing sufficient land space for the new neighbourhood sport and recreation precinct adjacent to Carcoola Primary School.

There are a number of other existing local sport and recreation precincts existing at Sunset Circle, Pinjarra; Delta Drive, South Yunderup; South Western Highway, North Dandalup; and McLarty Street, Dwellingup to cater for local active sporting and recreation needs. There is also additional need for junior sport and training facilities. These can be accommodated by co-locating additional public open space with primary school ovals. Overall the land area for the co-located open space should be five hectares with minimum dimensions of 250m by 200m (in addition to the land requirement for the school) which will allow flexibility for a senior sized oval, passive recreation areas, pavilion, parking and other amenities, in accordance with the typical local sport and recreation precinct model.

Figure 51: Typical local sport and recreation precinct



Figure 52: Typical neighbourhood sport and recreation precinct



Figure 53: Typical district sport and recreation precinct



Aquatic and Recreation Centres

The Shire has a single Aquatic and Recreation Centre, the Murray Aquatic and Leisure Centre (MALC) in Pinjarra. This is relatively new and should be retained, with upgrades such as improved changing facilities, warm water activities and expanded children's water play to accommodate future growth. With upgrade this facility should suit the population growth through to 2051.

Additional indoor courts will be required with a minimum of three courts to meet minimum standard for a district-level facility. Land adjacent to the current courts could accommodate more courts if needed.

With the population projected to exceed 50,000 by 2041-2046, an additional district-level indoor recreation facility should be developed by 2038, in line with the Shire's community infrastructure thresholds. The

Ravenswood Regional Recreation Precinct site is suitable for an indoor facility to serve the western portion of the Shire.

Lawn Bowls

Lawn bowls is well patronised in the Shire with two successful clubs operating, Pinjarra Bowling and Recreation Club (three greens) and the Yunderup Sport and Recreation Club (two greens). Both clubs have good facilities that will meet needs through to 2051. There are no plans for additional greens.

4.2.5.3 Community infrastructure

The Shire of Murray's *Community Infrastructure Plan 2013* serves as a key reference for identifying gaps and strategic directions for community infrastructure. This plan is currently being revised and it is envisaged the outcomes of this revision will be incorporated in this Strategy before it is finalised. The following text reflects the 2013 plan with adjustments to align with early findings and strategic directions emerging from the current review process.

Community centres/halls

The Shire currently has eight community centres/halls. A District facility in Pinjarra and Neighbourhood level facilities in North Pinjarra, Ravenswood (smaller interim facility), North Yunderup, Furnissdale, Coolup, Dwellingup and North Dandalup.

The current Pinjarra Civic Centre, with a footprint of 935sqm, falls short of the 1,500sqm standard for a district facility. The building is aging and faces maintenance issues and while it serves as a performance space, it is not fit for purpose. It is primarily used as a hall for hire, with limited flexibility due to the two main spaces available. To meet current and future needs, the Shire proposes the redevelopment of the Civic Centre

and Lesser Hall into a multipurpose civic hub, increasing the community centre floor space to at least 2,000m². The plan includes co-located facilities such as a district library, spaces for youth, seniors, and families, and adaptable outdoor areas. This redevelopment aims to create a vibrant community hub that serves a wide range of activities and better supports the Shire's growing population.

The analysis for the remaining neighbourhood community centres to ensure they meet the needs of the forecast population is summarised in the Table 25.

Table 25: Neighbourhood community centres

Community centre	Summary analysis	Proposal
Pinjarra North	Poor condition. Does not meet contemporary standards. Located at periphery of catchment.	Remove at end of life. Local meeting spaces to be served at future sporting social space.
Ravenswood	New interim facility. Meets interim needs. Too small for permanent facility (400m ²). Future permanent site in town centre not yet available.	Maintain existing facility for medium term. Identify permanent site in district centre precinct plan. Site to be large enough for neighbourhood community centre to meet needs to 2051 and enable it to evolve in long term to District Community Centre. Building design to facilitate expansion in longer term.

Furnissdale	Dated facility, does not meet contemporary standard. Located outside residential catchment.	Consider relocation to activity centre location (North Yunderup or Furnissdale) at end of economic life.
North Dandalup	Dated although structurally sound. Centrally located, although opposite side of highway to community. Hall format. Does not meet contemporary needs. Serves small but relatively isolated community. Benchmarks do not show a need.	Whilst need is not reflected by benchmark. Established facility in relatively isolated town. Desirable to remain and upgrade to contemporary standard for local community building.
South Yunderup	No community centre exists. Although sporting club allows some functions. Benchmark suggests a need, especially if longer term expansion south of current zoned urban land at Austin Lakes.	New Neighbourhood Facility proposed in Neighbourhood Activity centre in southern end of Austin Lakes estate, co-located with activity centre.
Coolup	Dated although structurally sound. Reasonable location on entry to town. Hall format. Design does not meet contemporary needs. Serves small but relatively isolated community. Benchmarks do not show a need.	Whilst need not reflected by benchmark. Established facility in relatively isolated town. Desirable to remain and upgrade to contemporary standard for local community building

Dwellingup	Dated although structurally sound, with some renewal necessary. Centrally located in main street. Hall format. Design does not meet contemporary needs. Serves small but relatively isolated community. Benchmarks do not show a need.	Whilst need not reflected by benchmark. Established facility in relatively isolated town. Desirable to remain and upgrade to contemporary standard for local community building.
------------	--	--

Libraries

The Shire of Murray is currently served by one district level library in Pinjarra, with a floorspace of 720m². The existing library faces a floorspace deficit of 646m², based on contemporary provision standards. With the growing population this is projected to grow to a deficit of 2,703m² by 2051. A benchmark analysis also indicates that an additional library will be required by 2051. The limitations with the existing library have resulted in reduced activities and programming, inadequate office and staff amenities, no dedicated meeting or event space, insufficient storage and a lack of space for a youth study area.

To address current and future needs to 2051, the Shire plans to redevelop the existing library as part of a multipurpose civic hub. The redevelopment will expand the existing library floorspace to at least 1,500m², addressing the immediate shortfall in floorspace. The remaining floorspace shortfall to meet the needs of the forecast 2051 population is planned to be met through a satellite library to be located within the Ravenswood district activity centre. Additionally, the redeveloped library will incorporate dedicated youth space within its footprint, ensuring that the library can better serve the diverse needs of the Shire's growing population.

Youth Facilities

Rather than establishing standalone youth centres, the Shire proposes to adopt a 'hub-and-spoke' model that combines centralised and decentralised youth spaces, which should be sufficient for the planned population capacity of approximately 74,000 people. The primary youth hub would be located within the planned Civic Hub redevelopment in Pinjarra. This hub would comprise an integrated, multipurpose facility comprising library, performance and event space and other community facilities. It should include designated areas for youth programming, with flexible spaces for different activities, as well as office space for youth development officers. An overall floor area of 200-300m² is recommended with configurable spaces to allow flexibility in use, with portion of this area dedicated to youth activity to provide a consistent identifiable space for youth activity

In addition to the primary hub, secondary dedicated youth spaces should be incorporated into multipurpose community centres at Ravenswood and South Yunderup. An area of approximately 100m² would be suitable plus outdoor social and recreation space. These spaces would allow youth services to be provided in locations close to where young people live and congregate.

Mobile and temporary youth services should be deployed in smaller settlements, such as Coolup, North Dandalup and Dwellingup to ensure these settlements still have access to essential youth support services.

4.2.5.4 Education and training

The Shire of Murray's current education infrastructure is concentrated primarily in Pinjarra, with additional non-government facilities in South Yunderup. Furthermore, there is some provision for addition government primary and non-government facilities in existing structure plans for new growth areas. As the population continues to expand,

particularly in key residential development areas, significant investment in education facilities will be required to ensure that residents have access to appropriate schooling options across all levels.

Liveable Neighbourhoods sets out the provision guidelines for school and TAFE sites in Western Australia as set out in table 26.

Table 26: Liveable Neighbourhoods provision for School and TAFE sites

	Primary Schools	Secondary Schools	Technical colleges (TAFE)
Government	One site per 1,500 dwellings	One site per 6,500-7,000 dwellings	One per 60,000 – 70,000 people
Non-government	One per three government primary schools	One per two government secondary schools	N/A

Government primary schools

The Shire of Murray currently has four government primary schools, two in Pinjarra and one each in North Dandalup and Dwellingup. As the population grows there will be a need for additional government primary schools to accommodate the increasing number of students.

Using the State guidelines of one primary school per 1,500 dwellings and a future capacity of 29,119 dwellings under this Strategy, a total of 21 government primary schools would be needed. Applying this to the Shire of Murray context however and having particular regard for the location and extent of existing and future urban and rural residential areas, as well as the location of existing primary schools, a total of 19

government primary schools are proposed under this Strategy. This means an additional 15 schools will need to be established to 2051.

It is noted that the Dwellingup primary school has only approximately 50 students enrolled in 2023. This school is a critical community asset particularly given the relative isolation of Dwellingup and so it is important that the Strategy actively provides for an increased permanent population in the town to ensure the school remains open and sustainable in the long term.

Table 27: Government primary school provision

Precinct	Existing dwellings 2023	Existing government primary schools 2023	Existing ratio (schools to dwellings)	Additional planned dwelling capacity under LPS	Total dwelling capacity under LPS	Total government primary schools required @1:1,500 dwellings	Total government primary schools proposed	Proposed ratio (schools to dwellings)
Pinjarra	2,184	2	1:1,092	9,553	11,737	7.8	8	1:1,467
Ravenswood	1,077	0	-	1,893	2,970	2.0	1	1:2,970
South Yunderup	1,982	0	-	5,480	7,462	5.0	4	1:1,866
North Yunderup	481	0	-	1,478	1,959	1.3	1	1:1,959
Furnissdale	587	0	-	1,205	1,792	1.2	1	1:1,792
West Pinjarra	207	0	-	1,272	1,479	1.0	1	1:1,479
North Dandalup/Rural North	391	1	1:391	635	1,026	0.7	1	1:1,026
Ravenswood North	24	0	-	1,543	1,567	1.0	1	1:1,567
Stake Hill Barragup Nambelup	648	0	-	776	1,424	0.9	0	-
Rural South (incl. Dwellingup)	866	1	1:866	451	1,317	0.9	1	1:1,317
Point Grey	3	0	-	0	3	0	0	-
Total	8,448	4	1:2,112	24,286	32,736	21.84	19	1:1,722

Government secondary schools

Pinjarra Senior High School is the only government secondary school within the Shire of Murray, serving a broad catchment area that extends beyond the Shire's boundaries. The State guideline recommends one high school per 6,500–7,000 dwellings, meaning the Shire's existing

provision is insufficient to accommodate future growth. With the projected number of dwellings reaching 29,119, the Shire will require a total of up to five government secondary schools. Applying this to the Shire of Murray context however and having particular regard for the location and extent of existing and future urban and rural residential areas, as well as the location of existing secondary and private schools, a total of four secondary schools are proposed under this Strategy. This means three additional secondary schools will be needed in growth areas.

Table 28: Government secondary school provision

Precinct	Existing dwellings 2023	Existing government high schools 2023	Existing ratio (schools to dwellings)	Additional planned dwelling capacity under LPS	Total dwelling capacity under LPS	Government high schools required @1:6,500 dwellings	Government high schools required @1:7,000 dwellings	Total government high schools	Ratio (schools to dwellings)
Pinjarra	2,184	1	1:2,184	9,553	11,737	1.8	1.7	2	1:5,869
Ravenswood	1,077	0	-	1,893	2,970	0.5	0.4	1	1:2,970
South Yunderup	1,982	0	-	5,480	7,462	1.1	1.1	0	-
North Yunderup	481	0	-	1,478	1,959	0.3	0.3	1	1:1,959
Furnissdale	587	0	-	1,205	1,792	0.3	0.3	0	-
West Pinjarra	207	0	-	1,272	1,479	0.2	0.2	0	-
North Dandalup/Rural North	391	0	-	635	1,026		0.1	0	-
Ravenswood North	24	0	-	1,543	1,567	0.2	0.2	0	-
Stake Hill Barragup	648	0	-	776	1,424		0.2	0	-
Nambeelup Rural South (incl. Dwellingup)	866	0	-	451	1,317		0.2	0	-
Point Grey	3	0	-	0	3	0.0	0.0	0	-
Total	8,448	1	1:8,448	24,286	32,736	5.0	4.7	4	1:7,280

Non-Government Schools

The Shire of Murray also has a limited number of non-government schools. St Joseph's Catholic Primary School is located in Pinjarra and the Austin Cove Baptist College in South Yunderup is a combined primary and secondary non-government school. The draft structure plan for the Murray River Country Estate, Pinjarra also includes

provision for an additional non-government combined primary and secondary school.

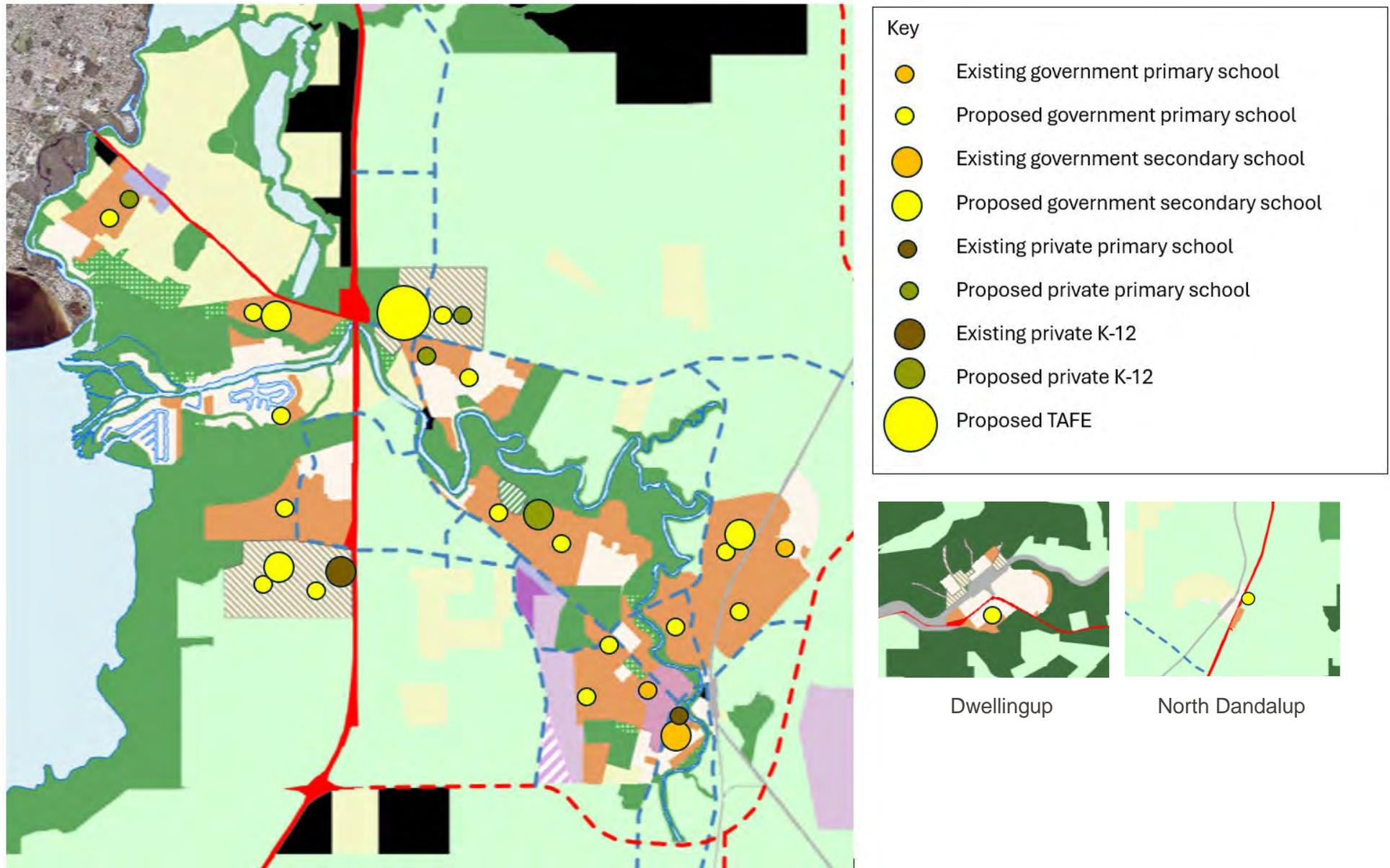
Whilst non-government schools are typically established in response to demand, further expansion of non-government schooling options is anticipated as the population grows. The Liveable Neighbourhoods guideline of one non-government primary school for every three government primary schools and one non-government secondary school for every two government secondary schools translates to a total of five non-government primary schools and two non-government high schools. This means three additional non-government primary schools and one additional non-government secondary school will be needed in growth areas.

Table 29: Existing and proposed schools

School type	School name or location
<u>Existing schools</u>	
Government primary schools	Carcoola Primary School Dwellingup Primary School North Dandalup Primary School Pinjarra Primary School
Government secondary school	Pinjarra Senior High School
Non-government primary schools	Austin Cove Baptist College St Joseph's Primary School

Flexibility in the permissibility of land uses within suitable zones will be important to accommodate their varied and evolving needs.

Figure 54: Existing and proposed school locations

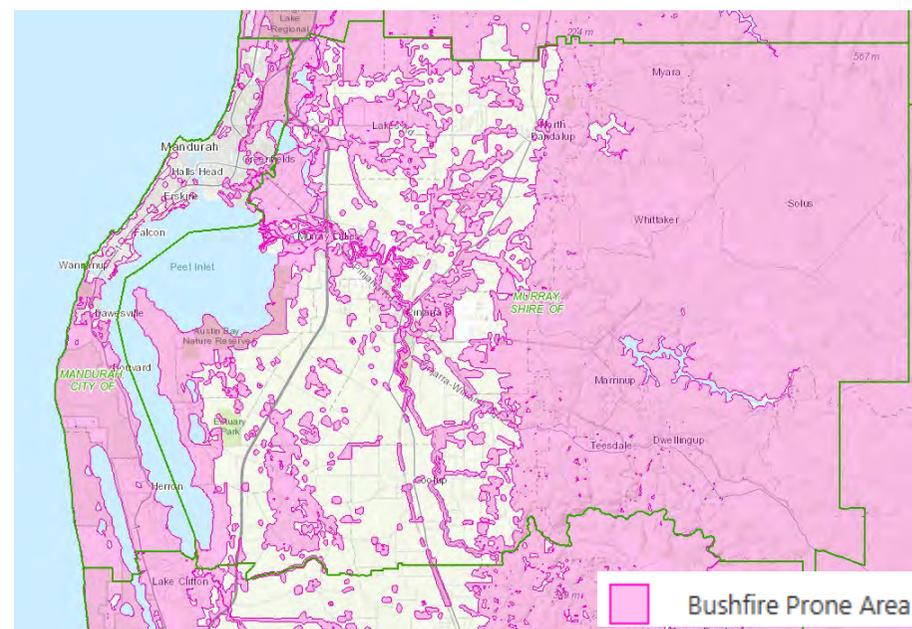


4.2.6 Hazards

The Shire of Murray is exposed to a range of natural hazards, most notably bushfire, riverine flooding and coastal erosion and inundation. With a changing climate, these risks are expected to increase over time due to hotter, drier conditions, more frequent extreme weather events, and sea level rise. The most effective means for reducing the long-term impacts of natural hazards is to integrate mitigation measures into the planning framework to make development more resilient to these hazards.

Much of the Shire is identified as bushfire-prone under mapping prepared by the Office of Bushfire Risk Management. State Planning Policy 3.7 *Planning in Bushfire Prone Areas* (SPP3.7) applies to these areas. Bushfire hazard level assessments have been undertaken for all locations proposed for land use change or intensification under this Strategy where such assessments had not already been completed. These assessments confirm the suitability of the areas identified from a bushfire hazard perspective. Given that Dwellingup is located within a heavily forested setting, a specific and detailed bushfire risk assessment has been completed to guide any future urban expansion. At subsequent stages of planning and development, bushfire management plans and building attack level (BAL) assessments will be required in accordance with SPP3.7 to ensure appropriate mitigation measures are applied.

Figure 55: Bushfire prone areas



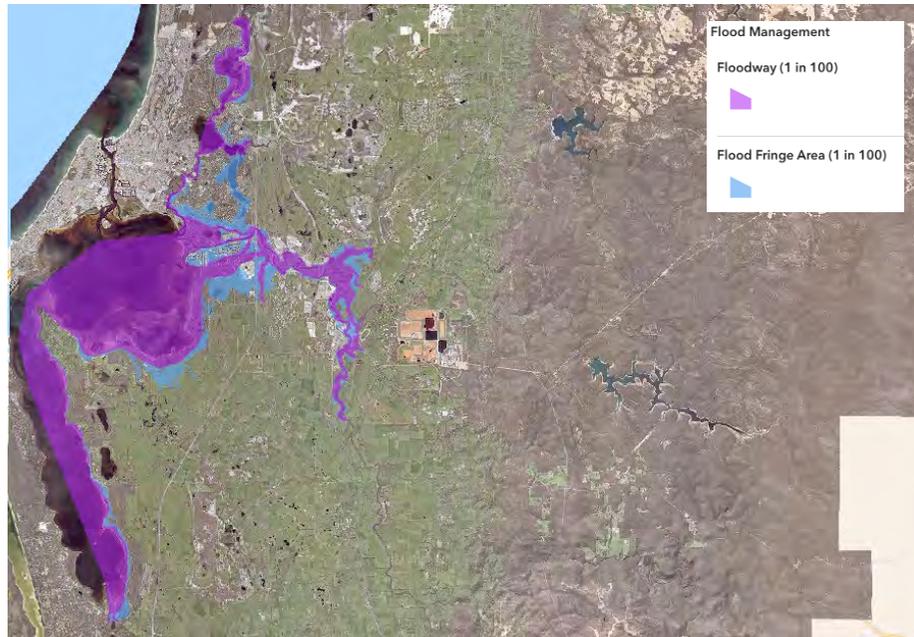
Source: Office of Bushfire Risk Management

To manage flood risk, the Department of Water and Environmental Regulation has prepared floodplain mapping for the Shire's rivers and major waterways. This identifies areas affected by a 1:100 year average recurrence interval (ARI) flood event and delineates both:

- the floodway, comprising the main river channel and adjoining land required to convey floodwaters, where development that may obstruct flow should not be permitted; and
- the flood fringe, the broader area affected by the 1:100 flood event, where development may be permitted, subject to minimum habitable floor levels and other design criteria.

A SCA is proposed for all identified floodplain areas to trigger development approval and ensure flood risk is adequately considered at the development application stage.

Figure 56: Floodway and flood fringe areas

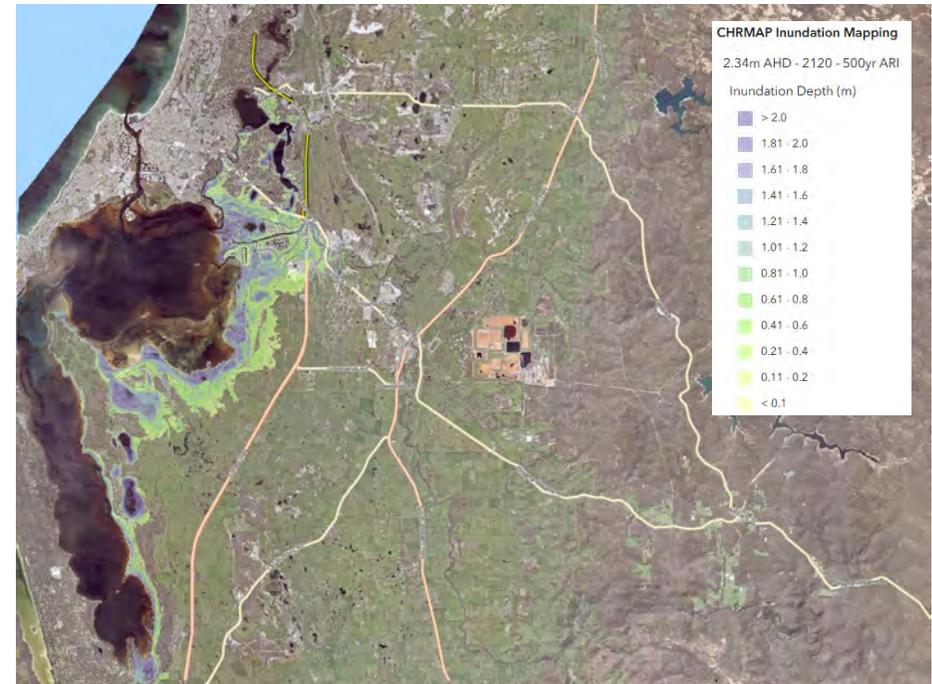


Source: Department of Water and Environment Regulation

In relation to coastal hazards, the Shire has prepared a *Coastal Hazard Risk Management and Adaptation Plan (CHRMAP)* in accordance with State Planning Policy 2.6 *State Coastal Planning Policy*. This plan includes hazard mapping and a risk assessment based on State-endorsed sea-level rise scenarios and identifies coastal areas likely to be subject to erosion or inundation at specified timeframes to the year 2120. A Coastal Hazard SCA, supported by a local planning policy, is

proposed to require development approval for any development within identified coastal hazard areas, ensuring that coastal risk is appropriately addressed through adaptation and mitigation strategies.

Figure 57: Coastal inundation areas 2120



Source: Shire of Murray CHRMAP



4.3 Economy and employment

4.3.1 Employment needs

The Shire of Murray has a significantly older population and an underrepresentation of people in the working age group compared to Greater Perth. The Shire's residents also have lower levels of education, income and participation in professional and managerial occupations. Compounding this, a high proportion of local jobs are filled by workers commuting from outside the Shire. These factors contribute to Murray's standing as one of the most disadvantaged local governments in the Greater Perth region.

Supporting local employment is essential to improving economic resilience and reducing social disadvantage. Key objectives of this Strategy include ensuring sufficient and well located employment land, strengthening activity centres and employment nodes, attracting and retaining younger, skilled working age people and ensuring sufficient land use flexibility to support evolving business needs. Facilitating the attraction and retention of younger skilled working age people by planning for diverse and affordable housing, vibrant and well connected mixed-use centres, access to education and training opportunities, a strong local job base and high quality recreation and cultural facilities will be critical to the Shire's future prosperity.

The Planning Framework provides for an increase in employment self-sufficiency across the Peel region from 72% to 79% by 2050. The Shire of Murray already exceeds this target, with an employment self-sufficiency rate of 85%. Due to its strategic location, availability of industrial and agricultural land and valuable economic assets such as the Nambeelup Industrial Area, Murray will need to provide a greater share of population driven and strategic employment than other local

governments in the Peel region. The Strategy sets a target to maintain this 85% self-sufficiency level as the population grows.

Currently, only 34% of the Shire's workforce both live and work locally. About 30% work in Mandurah, Rockingham, or as FIFO workers, with the remainder employed further afield. This indicates a mismatch between local skills and available jobs and results in economic leakage and increased social, environmental and transport costs. Improving local education and training options and aligning job creation with the existing and future skills base will be vital to addressing this mismatch.

Approximately 38% of local employment is concentrated in the mining and metal manufacturing industries, particularly associated with Alcoa's bauxite mine and refinery. With Alcoa's current life of mine ending in 2045, this concentration presents a significant long term economic risk. Diversification of the employment base and the identification of industries that can leverage the transferable skills of existing workers will be critical to reducing this risk and ensuring economic sustainability.

To maintain the 85% employment self-sufficiency rate, the number of local jobs will need to increase from 7,449 in 2023 to approximately 15,800 by 2038, and to 39,509 by 2051. Population driven jobs, such as construction, retail, health, education and personal services will grow naturally with population, potentially providing for 8,314 jobs by 2038. However, the remaining 7,486 jobs required to meet the 2038 target will need to come from strategic employment sectors, which rely on regional advantages, innovation, skills, and infrastructure.

Table 30: Jobs summary 2023-2051

Year	Job number	Employment self-sufficiency
2023	7,449	85%
2038	15,800	85%
2051	39,509	85%

The Shire must leverage its existing advantages, including natural assets, lifestyle appeal, access to major transport corridors, proximity to ports and airports and its established industrial, tourism, equine, mining and agricultural sectors to attract and grow strategic industries. This will require land use flexibility, infrastructure availability and clear development approval pathways. The Shire’s Economic Development Strategy will further define priority sectors and investment attraction measures to complement this Strategy.

The increasing appeal of Murray as a lifestyle destination, supported by remote work trends and digital infrastructure, presents an opportunity to attract professionals and higher income earners. Facilitating this requires the delivery of high quality and diverse housing, enabling a range of home based businesses types, investing in digital infrastructure and fostering walkable, well serviced communities with vibrant centres and collaborative workspaces.

Figure 58: Shire of Murray Economic Development Strategy Strategic Opportunities

Opportunity	Relevance
Development of Dwellingup, Pinjarra and the wider Murray region as a tourism destination	LPS can facilitate the opportunity by allowing tourism uses in key locations and potentially incentivising these uses (e.g. no permit for change of use in specific areas, etc.). Examples of key areas would be in the identified Town Centres and adjacent to key tourism infrastructure (i.e. a temporary café or pop-up visitor centre at a well know trail starting point).
Development of the Peel Business Park	The LPS needs to be a live document that works with the Shire’s EDS to guide development in the PBP. This could include protecting land around the Agri-Innovation Precinct for specific uses such as an abattoir (if appropriate). This should be guided by the updated EDS.
Establishing common use facilities in the Agri-Innovation Precinct	The LPS can identify suitable locations for common use facilities when identified.
Establishment of the Peel Food Zone	Inclusion of the Peel Food Zone in the LPS was identified as an opportunity in the Shire’s 2018-2022 EDS.
Establishment of the honey industry	The honey industry includes both consumer grade products and medical grade products. Should medical grade products be targeted there may be the requirement for extensive buffers to ensure the quality of the product.
Expansion of pig and chicken export industries	Appropriate buffers are required to ensure these land uses can be expanded without an impact on the liveability of the Shire and to protect the uses from long term gentrification.
Development of abattoir facilities	There are similar buffer requirements for this opportunity as for pig and chicken exports. There is likely also the need for this facility to be a common use facility that is easily accessible to a number of stakeholders in order to be viable. The LPS can identify a suitable location for such a facility once identified (likely through and EDS update).
Establishing arts and culture venues and community facilities	The LPS needs to ensure these facilities are collocated in or adjacent to highly active areas (e.g. Pinjarra Town Centre Core) or key tourist destinations (e.g. Dwellingup Town Centre).
Establishing health and education precincts, potentially co-located	Identified in consultation with the Shire, these can be located strategic with an activity centre to support a vibrant centre and high levels of amenity and access to goods and services for both workers and residents.

4.3.2 Activity centres

A well distributed and strategically planned network of activity centres provides critical focal points for commerce, employment and community across the Shire. These centres form a key part of the local economy and are central to achieving more sustainable, liveable and walkable communities.

An activity centre hierarchy has been developed based on a detailed Needs Assessment, which identifies the appropriate levels of retail and non-retail floorspace for each centre based on the forecast population. This hierarchy is shown in Tables 31 and 32 and illustrated on the Local Planning Strategy Map in Part 1. While the hierarchy primarily addresses needs to 2038, it also recognises the continued forecast growth to 2051 and beyond, ensuring that sufficient land is protected and made available for longer term centre expansion.

The Shire currently contains approximately 16,300m² of shop retail floorspace. It is estimated this will need to increase by 12,545m² by 2038 and by a total of 57,904m² by 2051. Non-retail floorspace (offices, health, civic, entertainment, etc.) currently sits at approximately 76,000m² and is projected to grow by an additional 71,000m² by 2038 and by a total of 145,100m² by 2051. These forecasts are considered conservative. As centres grow, improve in amenity and support more mixed-use and higher density development, they are likely to retain a greater share of local spending and support additional economic activity.

While this Strategy identifies a clear activity centre hierarchy, many of these centres are new or evolving. Detailed district, local and activity centre structure planning will be required to refine their location, boundaries, internal structure and design. This planning will ensure that centres are appropriately distributed to support accessibility, walkability,

and service delivery, while also promoting compact, mixed-use development with high quality built form and attractive public realms. These outcomes are essential to creating vibrant, people focused centres that encourage local visitation, support diverse business activity, enhance community identity and reduce car dependency.

In addition to formal activity centres, four small, existing commercial sites serve important local functions at Coolup, North Yunderup, North Pinjarra and South Yunderup. Though they are not large enough to qualify as activity centres, these sites provide valued neighbourhood scale services and contribute significantly to walkability, convenience, and local identity. There is a strong case to facilitate additional sites of this scale, such as corner stores, small cafés or similar embedded at the centre of residential neighbourhoods.

To ensure these small scale commercial sites are retained for their intended use and not lost to residential redevelopment, mechanisms such as mixed use zoning, minimum non-residential floor space requirements, local planning policy protections or scheme based use restrictions may be applied. These measures can help maintain the viability of neighbourhood scale services, reinforce local character, and support planning objectives related to complete and walkable communities.

The Nambelup Industrial Area will also need to include some commercial provision to attract and retain a skilled workforce. This should be modest and based on demonstrated worker need, with a benchmark of up to 450m² of shop retail per 1,000 workers as an upper limit based on benchmarks from other industrial areas. Provision of ancillary entertainment (eg. tavern), health services (eg. fitness, medical clinics) and food outlets may be co-located within a defined commercial node. As the industrial area matures and reaches higher

employment thresholds, the Shire should engage with local employers to assess evolving service needs and adjust planning controls accordingly.

Table 31: Activity Centres – Secondary, District and Neighbourhood

Activity centre	Current floorspace		2026		2031		2036		2041		2046		2051	
	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)
Secondary centre														
Pinjarra town	9,834	11,930	10,151	20,893	11,833	24,010	12,636	25,498	24,473	47,429	29,781	57,262	39,447	75,749
District centres														
Ravenswood district	-	-	-	-	2,731	11,011	2,940	11,265	3,480	11,920	4,374	13,004	11,902	22,137
Neighbourhood centres														
North Dandalup town	130	950	130	950	130	950	130	950	130	950	130	950	130	950
Furnissdale NC	1,350	10,600	1,350	10,600	1,350	10,600	1,350	10,600	2,500	19,630	2,500	19,630	2,500	19,630
Austin Lakes NC	-	-	-	-	-	-	1,630	3,134	1,817	3,134	4,120	3,134	5,068	3,134
Murray River Country Estate NC	-	-	-	-	-	-	2,111	4,287	2,212	4,287	5,176	4,287	6,932	4,287
Dwellingup town	860	1,490	860	1,490	860	1,490	860	1,490	860	1,490	860	1,490	964	1,671

Table 32: Activity Centres – Local

Activity centre	Current floorspace		2026		2031		2036		2041		2046		2051	
	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)	Shop (m ²)	Non Shop (m ²)
Local centres														
Austin Lakes LC	1,620	5,000	1,620	5,000	1,620	5,000	1,620	5,000	1,620	5,000	1,689	5,213	2,000	6,172
South Yunderup LC	386	580	386	580	386	580	386	580	386	580	386	580	386	580
North Yunderup LC	320	480	320	480	320	480	320	480	320	480	320	480	1,500	2,250
Ravenswood West LC	555	2,136	555	2,136	555	2,136	555	2,136	555	2,136	666	2,563	768	2,956
Ravenswood Central LC	-	-	-	-	958	-	1,035	-	1,206	-	1,493	-	1,785	-
Ravenswood South LC	-	-	-	-	1,257	1,571	1,328	1,571	1,519	1,571	1,853	1,571	2,541	1,571
Murray River Country Estate LC	-	-	-	-	-	-	-	-	-	-	1,435	3,348	2,047	4,775
Pinjarra South McLarty Road LC	891	13,073	891	13,073	891	13,073	891	13,073	891	13,073	891	13,073	1,019	14,956
Pinjarra South West LC	-	-	-	-	-	-	278	648	247	577	294	687	376	878
North Pinjarra West LC	-	-	-	-	-	-	1,105	1,492	1,179	1,492	1,584	1,492	2,413	1,492
North Pinjarra East LC	-	-	-	-	-	-	845	1,233	911	1,233	1,268	1,233	1,994	1,233

4.3.3 Industry

Industrial land plays a critical role in servicing both population driven demand and the Shire's broader strategic employment needs. It provides opportunities for manufacturing, logistics, research, agri-business and other industries that support economic diversity, resilience and local job creation. Strategic employment growth will be shaped by the priority sectors identified in the Shire's Economic Development Strategy. This Local Planning Strategy makes generous provision for industrial land to ensure the Shire is investment ready and able to respond flexibly to emerging opportunities across a range of industries.

The Nambeelup Industrial Area is the Shire's flagship industrial precinct, covering approximately 1,000 hectares. This significant project is central to the Transform Peel initiative and is forecast to generate up to 33,000 jobs when fully developed. The precinct is intended to accommodate a mix of logistics, advanced food manufacturing, agri-tech, research and training facilities and other innovation driven industries. Approximately 25 hectares have been subdivided and developed to date, with over 850 hectares of land already zoned for industrial use. Ongoing structure planning and infrastructure coordination will be essential to maximise the precinct's potential and attract investment.

The Pinjarra Industrial Area provides a complementary role by supplying light industrial land close to the Pinjarra townsite. Around 40 hectares of zoned industrial land remains, plus another approximate 50 hectares south of this which is in part identified as Industrial expansion under the Planning Framework and in part land identified as a Planning Area in this Strategy for Industrial Investigation given the preferred realignment of the western bypass road further to the west than the

initial alignment shown in the Planning Framework. This will ensure an ongoing supply for small to medium enterprises and service businesses.

The former Gallium Plant site on Napier Road, Oakley, comprises approximately 100 hectares of zoned industrial land. The site is isolated from major settlements and lacks utility services, but contains significant existing industrial infrastructure. Due to its proximity to the Alcoa refinery, environmental constraints and a Restrictive Covenant in favour of Alcoa intended to prevent the establishment of sensitive uses in close proximity to the refinery site, this land may not be suited to general industrial intensification without careful planning. A structure plan will be required to guide future subdivision, land use and development intensity, taking into account access, servicing, potential environmental impacts and compatibility with adjacent uses.

The Alcoa alumina refinery, which processes bauxite mined from the Darling Scarp, remains a major employer and contributor to the regional economy. The western portion of the industrial zone, originally intended for caustic storage runoff, has not been developed and is subject to significant environmental, visual and Aboriginal heritage constraints. Alcoa is therefore still investigating a range of alternative sites for the caustic water storage. Given this and the proximity, as close as 1.2 km to future urban areas, it is no longer considered the western portion of the Industrial zone is appropriate for industrial expansion. It is proposed that this land be returned to the Rural zone and that alternative sites be identified for any future storage infrastructure following detailed assessment. Furthermore, the areas identified in the Planning Framework for Alcoa's Industrial Investigation, intended for potential residue storage expansion, have not secured environmental approvals and lack sufficient assessment to demonstrate suitability. Alcoa is still investigating both the need for and the feasibility of residue expansion

sites. Accordingly, further justification and comprehensive environmental, landscape, and cultural assessments should be completed before any such areas are identified in this Strategy.

In the north-east of the Shire, the Keralup landholding, a 1,600-hectare area of State-owned land, has been earmarked in the Planning Framework for non-urban future land uses that may support environmental restoration, recreation, economic activity or agri-business. Its isolation, proximity to Nambeelup Industrial Area and separation from private rural properties give it potential as a location for larger footprint, low serviced land uses such as agri-industry, processing or other employment generating activities that may be unsuitable elsewhere in the rural zone due to amenity concerns. With appropriate planning controls, this area could serve as a future employment precinct with strong synergies with the Nambeelup Industrial Area.

In addition to industrial land, there is a growing need for service commercial land to accommodate uses such as showrooms, bulky goods, trades, vehicle services and light commercial activities. Table 33 summarises the potential additional non-retail floorspace that could locate within service commercial areas along key corridors and industrial edges, in addition to non-retail commercial in activity centres. Provision has been made for this use in the Pinjarra Road and Pinjarra Western Bypass frontage of the Pinjarra Industrial Area, the Lakes Road frontage of Peel Business Park and the existing service commercial precincts in Barragup and Furnissdale. Structure planning should ensure these areas are well designed, accessible and compatible with adjacent land uses.

Table 33: Service commercial floorspace in other employment centres

	2031	2036	2041	2046	2051
Service commercial floorspace demand	1,361	4,659	6,103	20,949	32,493

4.3.4 Health and education precinct

The Shire of Murray has an ageing population, higher than average prevalence of reported health conditions and lower access to preventative and allied health services compared to Greater Perth. These demographic and health factors, combined with a growing population and increasing service demand, highlight the need for coordinated long term planning to improve access to health care and educational services within the Shire.

The Murray Health Futures Steering Committee, comprising the Department of Communities, South Metropolitan Health Service, WA Primary Health Alliance, Peel Development Commission and the Shire of Murray, has prepared a business case to establish a health hub in Pinjarra. The initiative is centred around the potential expansion of land surrounding the existing Murray District Hospital. A detailed health and social needs analysis has been prepared to identify key service gaps, demographic trends, existing health infrastructure and workforce requirements. In addition, the Committee is also considering the needs for a new public hospital to satisfy the long term needs of the growing Peel community.

Using the Rockingham Hospital as a benchmark, which has a floorspace of 39,000m² and supports approximately 1,588 jobs, there would be the potential for approximately 1,070 jobs supportable by an

equivalent offering in Murray, adjusting the identified gap in health, welfare and community services in the Shire's activity centres.

With the growing population and lower education levels evident with the Murray population there is a need to consider provision of a vocational education facility. Applying the Greater Perth ratio of vocational students to population (1 student per 40.9 persons) there is an identified need to cater for 924 students by 2038 and 1,755 students by 2051. Using the South Metropolitan TAFE Carlisle campus as a benchmark, a total of 138 jobs are supportable for this use. The Carlisle campus is a small facility, given the scale of the population growth forecast for the Shire in the longer term, the facility could grow beyond this size.

Land for a potential co-located health and education precinct has been identified in the northern portion of Ravenswood, as a component of the Ravenswood town centre in order to protect this land to ensure a well located health and education precinct to cater for the Shire's growing population, even in the event that the business case indicates development outside the term of the Local Planning Strategy. The co-location of the health and education facilities would generate significant benefit for the local community through agglomeration economies. Inclusion within an activity centre would increase the attractiveness of the employment sector for workers and enable greater expenditure to be captured by the local retail sector.

The site in Ravenswood would allow the facilities to be located central to the Shire's catchment population and provide a high level of accessibility through being located along the Mandurah to Pinjarra high priority transit corridor. The site is also highly accessible to the regional road network.

Based on the identified benchmarks, a 4.6ha site would be required for the health precinct and a further 2.3ha for the education facility. There

may be an opportunity to reduce the overall land area if co-located due to efficiencies and shared infrastructure. The final positioning and size of the facilities will be resolved through structure planning and further discussions with stakeholders. The design however ought to be integrated into the urban form of the activity centre rather than a separate campus style facility to encourage synergies between uses, improve pedestrian accessibility and contribute to the street life and activity within the centre.

4.3.5 Tourism

With its close proximity to the Perth metropolitan area, diverse natural landscapes, rich heritage and cultural assets, the Shire of Murray is well positioned as a desirable tourism destination. In 2021–2022, tourism activity in the Shire generated an estimated \$63.2 million in total economic output and supported employment for approximately 341 people in tourism related businesses. Each year, the Shire attracts around 377,000 visitors, including both day-trippers and overnight stays.

The Shire's tourism offering is built around three distinct tourism clusters, each with unique appeal:

- Dwellingup – Recognised as Western Australia's first national trails town, Dwellingup is a leading nature based and adventure tourism destination. It boasts an award winning trails centre, extensive trail networks catering to a variety of skill levels, the Lane Poole Reserve, a walkable town centre and a growing number of eco-adventure experiences.
- Pinjarra – One of the earliest settled towns in Western Australia, Pinjarra is a hub of cultural and heritage tourism. It features a unique collection of preserved 19th century heritage buildings, the

Hotham Valley Tourist Railway precinct and sites of deep Aboriginal cultural significance. Pinjarra serves as the primary base for visitor services and tourism infrastructure.

- The Waterways Localities, including Yunderup, Ravenswood, and Furnissdale, these locations provide scenic river and estuary access, with recreational boating, kayaking, and houseboating being key visitor attractions. They offer a laid back lifestyle and easy water access within close reach of the city.

Given its high-quality tourism assets and location within an hour's drive of Perth, Murray has strong potential for further tourism growth. This Strategy can support tourism by enabling:

- Flexibility in land use and zoning to accommodate innovative tourism developments;
- Improved place making and public realm enhancements in tourism centres and key localities;
- A diverse range of short stay accommodation, including eco-retreats, river based stays, camping, and boutique hotels in high amenity locations;
- Protection, conservation and adaptive reuse of heritage sites to support tourism activation;
- Improved integration with trail, cycling, boating and cultural heritage networks.

Sustainable tourism growth can bring broader benefits, including employment generation, economic diversification, revitalisation of town centres, and strengthened cultural identity. Planning will need to ensure tourism development is managed sensitively in areas with high

environmental or cultural significance, particularly in the Lane Poole Reserve and along the Peel-Harvey Estuary.

4.3.6 Murray Airfield

Murrayfield Airport has significant potential to evolve into a catalytic infrastructure asset that supports economic diversification and job creation in the Shire of Murray. Strategically located with direct access to the Peel region and in close proximity to the Nambelup Industrial Area, the airport could play a key role in supporting a range of aviation related industries and services, including:

- Aviation education and training (e.g. pilot training and flight schools);
- Recreational and scenic flights;
- Aircraft engineering, maintenance and servicing;
- Hangar storage and leasing;
- Aviation-based tourism and events;
- Emerging aviation technologies, including electric and autonomous aircraft.

In addition to these direct aviation uses, Murrayfield Airport may support broader regional logistics functions, including the transportation of goods and people, particularly as advancements in aviation technology improve regional air mobility and reduce barriers to entry for smaller scale air services. This could become increasingly important as the Peel region's population grows and demand for fast, flexible connectivity with other regions increases.

Site development is currently at an early stage. An approved masterplan guides the future development of the airport precinct, incorporating infrastructure for expanded runways, flight academies, club and community facilities, hangars and associated administration buildings. However, to fully realise the long term vision for the site, flexibility in planning controls and zoning will be essential to allow the airport to adapt to emerging opportunities and new aviation related business models over time.

Planning for Murrayfield Airport should recognise its strategic economic value, ensure compatible land uses are maintained in the surrounding area to protect operational viability and support the establishment of a distinct aviation precinct that can evolve as a regional employment hub.

4.3.7 Resource management (basic raw materials, mining, renewable energy)

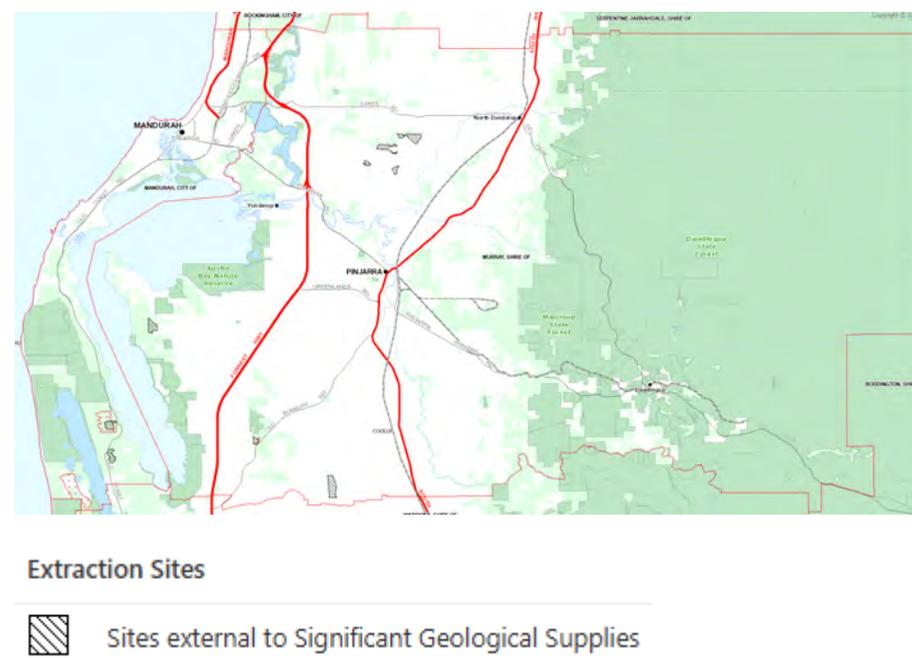
Basic raw materials (BRM), including sand, clay and gravel, are essential inputs for the construction of housing, infrastructure and public works. However access to these materials is increasingly constrained due to urban development, environmental sensitivities and land use conflicts. Securing the long term availability of BRM near future growth areas is critical to keeping construction and infrastructure delivery costs manageable.

During preparation of the Planning Framework, the State Government took significant steps to avoid locating future urban development in low lying areas such as Keralup, in part due to the need to maintain access to BRM resources. In the context of the Shire of Murray's geography, particularly its extensive low lying areas, long term access to sand resources in areas such as Lake Clifton will be vital to support development across the Peel region.

The Department of Local Government, Industry Regulation and Safety (LGIRS) classifies BRM resources in two key categories:

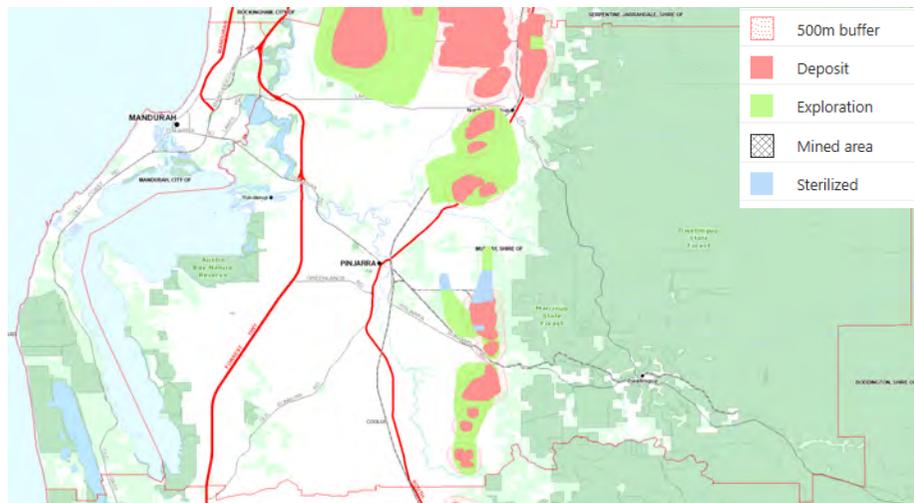
- Significant Geological Supplies (SGS): Strategic long-term reserves that require protection from incompatible development. There are currently no SGS sites identified within the Shire of Murray.
- Extraction Sites (ES): Sites with commercial BRM extraction. The Shire currently has seven active ES sites, including one clay site and six sand sites, which are mapped in Figure 59 of the Strategy.

Figure 59: Basic raw material extraction sites



In addition to BRM, the Shire contains significant mineral sand resources, particularly in its northern areas and foothills. Doral currently operates a significant mine in North Dandalup - Keysbrook, which produces high value minerals such as leucoxene and zircon. While this mine has a relatively short operational lifespan (estimated 4–5 years), it is surrounded by active exploration tenements and Doral are currently progressing environmental approvals for expansion of its approved mine.

Figure 60: Mineral sands deposits



Bauxite mining is another major industry, with substantial deposits located in the State Forests of the Darling Range. Alcoa operates under a long standing State Agreement, mining bauxite at Huntly and Willowdale and refining alumina at Pinjarra, Kwinana, and Wagerup. The mining operations are approved under the State Agreement Act

and are not subject to local scheme controls. Alcoa's current mineral lease extends to 2045.

Future land use planning in the Shire must balance the protection and extraction of mineral resources with the need to manage amenity, environmental protection and land use compatibility. This requires:

- Appropriate identification and policy frameworks that protect regionally significant BRM resources;
- Buffer distances and interface management to minimise land use conflict;
- Sequential land use planning to support efficient transition between extraction and post extraction land uses;
- Rehabilitation plans aligned with long term land use objectives;
- Protection of environmentally sensitive areas and water resources, particularly in vegetated and wetland environments.

4.4 Environment

4.4.1 Climate and climate change

The Shire of Murray experiences a Mediterranean climate, characterised by hot, dry summers and mild, wet winters. The region's climate is influenced by its location on the Swan Coastal Plain, the presence of the Darling Scarp and large scale weather patterns driven by the Indian and Southern Oceans.

Annual rainfall ranges from approximately 800 to 1,200 mm, with the majority falling between May and September due to the passage of cold fronts and westerly storm systems. The Darling Scarp and foothills receive higher rainfall than the coastal plain due to orographic lifting, while the lower lying areas experience lower precipitation and higher evaporation rates.

Summer maximum temperatures typically range from 30°C to 40°C. Heatwaves are common, particularly when hot, dry easterly winds from replace the cooling afternoon sea breezes. During summer, katabatic winds can descend from the Darling Scarp, bringing warm air into the lower lying areas overnight, exacerbating heat retention in urban environments. Winters are mild, with minimum temperatures averaging 5°C to 10°C, and occasional frost occurring in inland and elevated areas.

Wind patterns are strongly seasonal. In summer, the dominant south-westerly sea breeze moderates coastal temperatures in the afternoons, but inland areas experience hotter daytime temperatures due to reduced maritime influence. In contrast, strong easterly winds originating from the interior can bring prolonged dry conditions. In winter, prevailing north westerly winds associated with cold fronts deliver rainfall, often accompanied by strong squalls and storm activity.

Increased temperatures of 1.5°C to 3°C are expected by 2070 as a result of climate change under a high emission scenario (CSIRO & BoM, 2020). This will lead to longer, hotter summers, more frequent heatwaves, higher evaporation rates and increased bushfire risks. Rainfall is expected to decline by 15–30% (Department of Water and Environmental Regulation, 2019), particularly in winter and spring, reducing groundwater recharge and altering wetland and river hydrology. At the same time, more intense summer storms will heighten flash flooding risks. Coastal and estuarine areas will experience rising sea levels, erosion, tidal inundation and saltwater intrusion, particularly affecting low lying areas close to the Peel-Harvey Estuary and Serpentine and Murray Rivers.

Land use planning should integrate climate resilience, water management, bushfire mitigation and coastal adaptation. Development should avoid flood and bushfire prone areas; incorporate tree canopy retention and expansion; water sensitive urban design; and address rising sea levels through setbacks and erosion control. Sustainable water strategies should support stormwater harvesting, aquifer recharge, and wetland conservation. Provision should be made to promote renewable energy, public transport and low carbon urban design to reduce emissions.

4.4.2 Geology and geomorphology

In broad geomorphic terms, the Shire of Murray is divided into two distinct parts, the Darling Plateau to the east and the Swan Coastal Plain to the west. These are separated by the Darling fault and its surface expression, the Darling Scarp. There is good correlation between the geology, geomorphology and the landforms and soils of

the Shire. As a result they can be discussed together in a regional context by reference to Figure 61.

4.4.3 Landforms and soils

Darling Plateau

Lateritic Uplands and Minor Valleys (DP) – The gently undulating lateritic uplands of the Darling Plateau consist of two landform soil associations, Dwellingup and Yarragil. The upland interfluvial areas (Dwellingup) contain mainly gravelly soils and areas of surface laterite. The gently concave valleys (Yarragil) with swampy floors and generally more earthy soils, are shallowly incised and provide favourable locations for perennial horticulture.

Steep Scarp (DS) and Major Valleys (MV) - The Darling Scarp and major valley forms (Helena and Murray) show the greatest relief and degree of incision through the plateau's laterite mantle and into the underlying Archaean granitic rocks. Slopes are steep and massive rock outcrops are common. Red and yellow duplex soils occur on moderate to steep upper slopes, acid red gradational earths on colluvial deposits, and gravelly sands on the ridge tops and spurs.

Although of significant aesthetic value, the steeper areas have a reduced agricultural potential due to rock outcrop and the risk of erosion after clearing. These factors, combined with possible difficulties with fire control and foundation stability, also limit the potential for residential development.

Swan Coastal Plain

Ridge Hill Shelf - The Ridge Hill Shelf comprises a single landform/soil association, Forrestfield. The dominant soils are acid yellow duplex soils with ironstone gravels although the western edge is often fringed

by brownish sands derived from former beach sand deposits (Yoganup). The Ridge Hill Shelf is generally well drained and provides good winter grazing when lower lying terrain to the west is waterlogged. These drainage conditions are also favourable for residential development. Some areas receive concentrated runoff from adjacent steep slopes and are subject to erosion if cleared or overgrazed. Areas of shallow soils and laterite outcrop also occur and may limit some land uses.

Pinjarra Plain - The Pinjarra Plain is flat to very slightly undulating and is comprised of a series of riverine soil deposits. The youngest and most fertile soils are the gradational red earths and red duplex soils on levees and terraces of the Murray River (Swan association).

The central portion of the plain contains mottled yellow duplex soils and, less commonly, gradational yellow earths of the Guildford association. These are generally less fertile and are somewhat poorly drained with perched water tables.

In the west and south west, areas of lower relief and poorer drainage have alkaline yellow-grey clays of the Cannington association and black and grey clays of the Serpentine River association.

The establishment of an extensive network of drainage channels, coupled with the use of superphosphate and subterranean clover based pastures, has resulted in most areas of the Pinjarra Plain being highly productive for livestock grazing. Some of the poorer drained 'heavier' soil types are however susceptible to salinity and are therefore of lesser quality for agriculture.

Bassendean Dune System – occurs to the west of the Pinjarra Plain. Two soil associations are present, Bassendean in generally better

drained areas and Southern River with a complex of poorly drained sands and clayey soils near the edge of the Pinjarra Plain.

Within the low dunes the most common soils are bleached siliceous sands with a weak organic coffee rock pan at depths of several metres or more. These are of very low fertility and have a low capability to retain either water or nutrients. Where surface vegetation cover is removed by clearing or overgrazing, areas of the dunes are susceptible to wind erosion.

In lower-lying wetter areas, the soils are grey sands to sandy loams with dark brown humus pans. Pastures here are more productive. On poorly drained sandplains the soils may be underlain by an unrelated mottled grey clay layer giving rise to perched water tables.

The Bassendean Dune System is thus an association of soils, some of which are subject to severe water logging, while others suffer from summer drought. In general, these areas are regarded as less productive, poorer quality agricultural land.

Most Bassendean soils are easily leached and have the potential to contribute nutrients (from either fertilizer or septic tank effluent) to drainage systems and hence to the Peel-Harvey Estuary. In low-lying areas where the sandy soils require surface drainage, the risk of contributing to the nutrient enrichment problem is even greater.

Spearwood Dune System

A small area of the Spearwood Dune System occurs to the south of Point Grey. It is comprised of an undulating landscape of yellow-brown siliceous sands overlying limestone at varying depths.

As with the Ridge Hill Shelf, these soils have moderate agricultural potential and provide useful winter grazing when the more productive

areas of the Pinjarra Plain are waterlogged. They have a better ability to retain nutrients than the more leached grey sands of the Bassendean System and hence are more suited to both agricultural and rural-residential uses.

Estuarine and Lagoonal Deposits

These are mixed, unconsolidated deposits which form the terraces, flats and beach ridges around the Peel Inlet and the estuaries of the Harvey, Murray and Serpentine Rivers. The soils are extremely variable, are often poorly drained and saline, and some are subject to periodic inundation. They are severely limited for conventional agricultural or residential land uses.

Figure 61: Landforms and soils



4.4.4 Surface water

Surface drainage within the Shire of Murray is dominated by the Murray River System. This system, which includes the Serpentine and Dandalup Rivers, originates in the agricultural areas to the east of the Shire and flows westwards across the Darling Range, the Darling Scarp and the Swan Coastal Plain, before discharging into the Peel Inlet. The Harvey River also drains a minor portion of the Shire around the river's delta as it enters the Harvey Estuary.

Drains constructed and maintained by the Water Corporation, as well as 'connectors' established by private landholders, supplement natural drainage over much of the low lying terrain on the Swan Coastal Plain. The drainage network alleviates waterlogging and local flooding and hence improves the area's agricultural potential. This is however also responsible for transporting excess nutrients into the shallow Peel-Harvey Estuary.

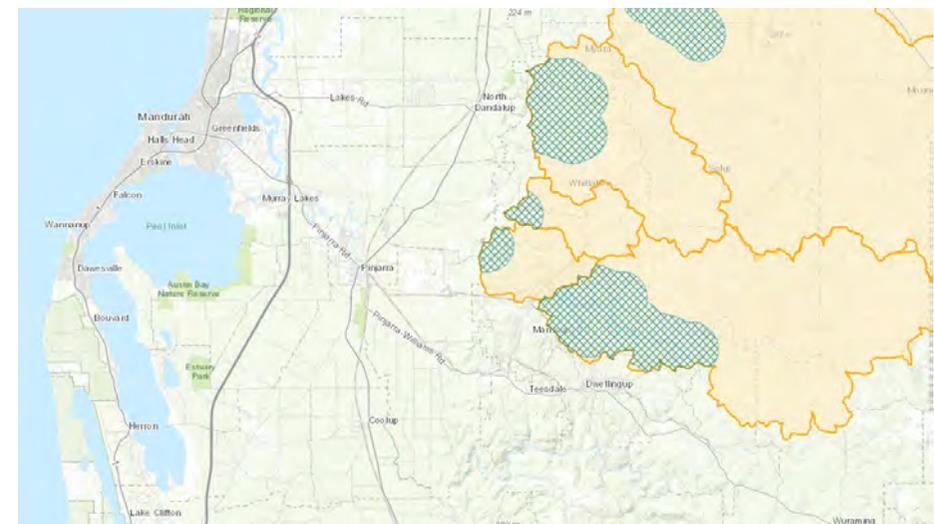
Clearing of inland agricultural areas and the Swan Coastal Plain has resulted in some deterioration of water quality due to salinity although this varies seasonally. Tributaries within the Darling Range are however generally in a healthy condition since the natural forest vegetation has been retained to safeguard public water supplies.

4.4.5 Surface water

Public Drinking Water Source Areas (PDWSAs) are surface water catchments and groundwater resources that provide the State with a significant portion of its drinking water. PDWSAs are proclaimed under the Metropolitan Water Supply, Sewerage, and Drainage Act 1909 or the Country Areas Water Supply Act 1947. These areas can be

vulnerable to contamination from a range of land uses and water based activities. Once an area is identified as a PDWSA, consideration needs to be given to the intended land use and associated activities to ensure that they are appropriate in meeting the water protection quality objectives of the area. Figure 62 shows the location of the PDWSA in the Shire of Murray. These areas are all classed as P1 areas, the highest priority for protection.

Figure 62: Public Drinking Water Source Areas



-  Reservoir Protection Zone (inner Catchment Boundary Area)
-  Public Drinking Water Source Areas Boundaries

4.4.6 Groundwater

Two groundwater provinces occur within the Shire of Murray, the Perth Basin and the Yilgarn South West Province. The latter underlies the Darling Plateau and the groundwater occurring in fractured rocks is of fresh to brackish quality. Bore yields are however are relatively low and sporadic.

The Perth Basin underlies the Swan Coastal Plain. The main aquifers are:

- the unconfined superficial aquifer near the surface;
- the Leederville artesian aquifer at intermediate depth;
- the Cockleshell Gully and Yarragadee artesian aquifers.

The unconfined superficial aquifer has a saturated thickness of 20 - 30m and is recharged directly from rainfall, with some inflow from surface streams and upward leakage from the Leederville Formation. The flow is mainly to the west, discharging into Peel Inlet and Harvey Estuary or into rivers and wetlands. Groundwater salinity is highly variable but lowest towards the Scarp. Small lenses of fresh water overlie saline groundwater in the Yunderup area.

Bore yields within the superficial aquifer are variable and generally in the vicinity of 500 - 1000m³/day. The Guildford formation clays produce poor yields however good yields can be expected from the more permeable sandy areas. Significant withdrawals from this aquifer have the potential to adversely affect nearby surface waterbodies. Proposed horticultural developments using this aquifer will therefore need to be relatively small and carefully considered in relation to their environmental impacts.

The Leederville aquifer underlies the superficial aquifer and is recharged from it. Salinity is generally more than 1000mg/L (marginal quality) and yields are generally less than 2000m³/day. This confined aquifer is used, in part, for Mandurah's water supply and has been reserved by the Water Corporation for future water supply.

The Cockleshell Gully Formation is recharged from small areas along the Darling Scarp. Salinity generally exceeds 3000mg/L although there are small areas east and north of Pinjarra where fresh water occurs. The confined Cockleshell Gully formation is limited in suitable quality groundwater for horticultural purposes and allocations will be limited to less than 50,000m³/annum from depths greater than 100 to 150 metres. Within the foothills to the south of Napier Road, water allocations from the Cockleshell Gully formation are unavailable due to the resource being committed to Alcoa's Pinjarra refinery.

The Yarragadee formation is generally brackish and too great a depth to be considered for most industrial or agricultural users.

Most of the Swan Coastal Plain portion of the Shire is proclaimed as the Murray Groundwater Area. The remainder in the north western corner of the Shire is within the South West Coastal Groundwater Area.

Groundwater usage within Groundwater areas is controlled by the issuing of licences by the Department of Water and Environment under the Rights in Water and Irrigation Act 1914 and restrictions may apply to the amounts drawn. Allocations for Special Rural zoned lots for example are generally 1,500m³/annum, which is adequate for domestic requirement and irrigation of up to 0.1ha.

4.4.7 Natural waterways

The Shire of Murray contains a diverse network of waterways, including the Murray River, Serpentine River, Peel-Harvey Estuary and several smaller tributaries and drainage systems. These waterways play a vital role in the region's ecology, hydrology, and landscape.

The Murray River is the largest and most significant river in the Shire, originating to the east of the Shire and flowing approximately 134 km westward across the Swan Coastal Plain before discharging into the Peel-Harvey Estuary. It is a perennial river, with seasonal variations in flow influenced by rainfall, groundwater contributions, and tidal fluctuations in its lower reaches. The river supports diverse riparian vegetation, provides habitat for native fish and waterbirds, and is important for recreation and tourism. The lower sections, particularly around the delta islands, are highly dynamic, with shifting sediment patterns and vulnerability to inundation and erosion.

The Serpentine River also originates in the Darling Plateau and flows westward for around 110km, eventually entering the Peel Inlet. The river's flow is significantly regulated by the Serpentine Dam, which supplies drinking water to the Perth metropolitan area. In its upper reaches, the river remains a freshwater system with riparian vegetation, while its lower estuarine sections are tidally influenced. Seasonal variations result in low flows in summer and higher flows in winter, with flood risks in some areas.

The Peel-Harvey Estuary is a large, shallow estuarine system formed by the confluence of the Murray, Serpentine, and Harvey Rivers. Covering approximately 136 km², it is a Ramsar-listed wetland of international significance, supporting extensive seagrass meadows, migratory waterbirds and marine life. Historically, the estuary suffered from nutrient enrichment due to agricultural runoff, leading to algal

blooms. The construction of the Dawesville Cut which opened in 1994 improved tidal exchange and helped alleviate water quality issues.

Several tributaries and drainage networks, including Blythe Brook, Nambeelup Brook, and Dirk Brook, flow through the Shire, primarily draining agricultural and urban areas into the Peel-Harvey Estuary. These smaller waterways play a crucial role in transporting surface water and nutrients, influencing water quality in the estuary. Many of these systems are subject to modified flow regimes due to historical land clearing and drainage interventions.

4.4.8 Wetlands

Wetlands are areas which are permanently, seasonally or intermittently waterlogged or inundated with water. Naturally occurring wetland features are common across the Swan Coastal Plain and can contain fresh or salty water, which may be flowing or still. DWER classifies wetland types based on their inundation characteristics and physical structure, as outlined in Table 34.

Table 34: Wetland classifications used by DWER

	Basin	Flat	Channel	Slope	Highland
Permanently inundated	Lake	-	River	-	-
Seasonally inundated	Sumpland	Floodplain	Creek	-	-
Intermittent inundation	Playa	Barkarra	Wadi	-	-
Seasonally waterlogged	Dampland	Palusplain	Trough	Paluslope	Palusmont

In order to provide an indication of the relative condition and conservation value of mapped geomorphic wetlands on the Swan Coastal Plain, each wetland has been evaluated and assigned one of three management categories detailed in Table 35.

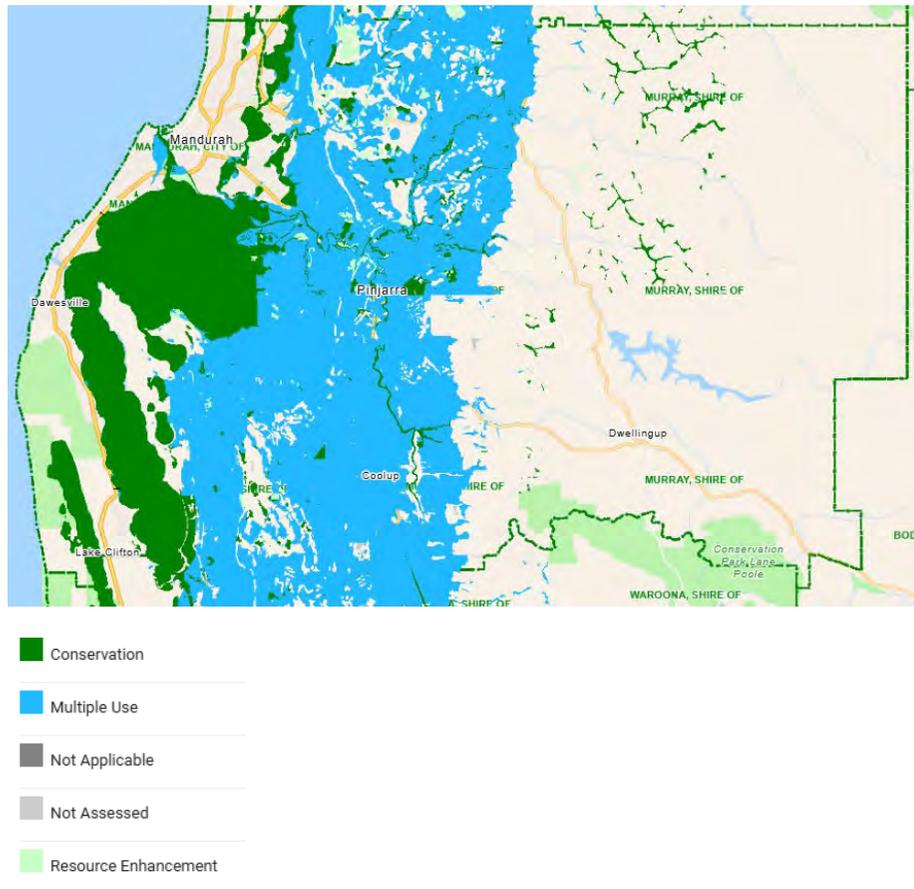
Table 35: Geomorphic wetlands of the Swan Coastal Plain management categories

Management category	Description of wetland	Management objectives
Conservation (CCW)	Support high levels of attributes	Preserve wetland attributes and functions through reservation in national parks, crown reserves and state owned land. Protection provided under environmental protection policies.
Resource Enhancement (REW)	Partly modified but still supporting substantial functions and attributes	Restore wetland through maintenance and enhancement of wetland functions and attributes. Protection via crown reserves, state or local government owned land, environmental protection policies and sustainable management on private properties.
Multiple (MUW)	Use Few wetland attributes but still provide important hydrological functions	Use, development and management considered in the context of water, town and environmental planning through land care.

Source: Hill et al. 1996

DWER maintains the *Geomorphic Wetlands of Swan Coastal Plain* spatial dataset, which specifies the classifications and management categories of all wetland features across the Swan Coastal Plain. These are shown on Figure 63.

Figure 63: Geomorphic Wetlands of Swan Coastal Plain



4.4.9 Acid sulfate soils

Acid sulfate soils (ASS) are widespread within the Shire of Murray, particularly in low lying coastal and estuarine environments, wetlands, and areas with shallow groundwater. These soils contain iron sulfides (primarily pyrite) which when exposed to oxygen through drainage or excavation, can produce sulfuric acid, leading to environmental degradation, including waterway acidification, metal mobilisation, and damage to infrastructure.

The highest risk areas for acid sulfate soils occur along the Peel-Harvey Estuary, the Murray and Serpentine River floodplains and other wetland and swampy environments across the Swan Coastal Plain. These soils are generally found in estuarine muds, organic rich sediments and alluvial deposits associated with historical wetland and riverine systems. DWER has mapped these areas, classifying them as high risk (actual and potential ASS) or moderate to low risk zones. Any development likely to disturb ASS must conduct an Acid Sulfate Soil Investigation and prepare a Management Plan to mitigate risks.

Figure 64: Acid sulfate soils

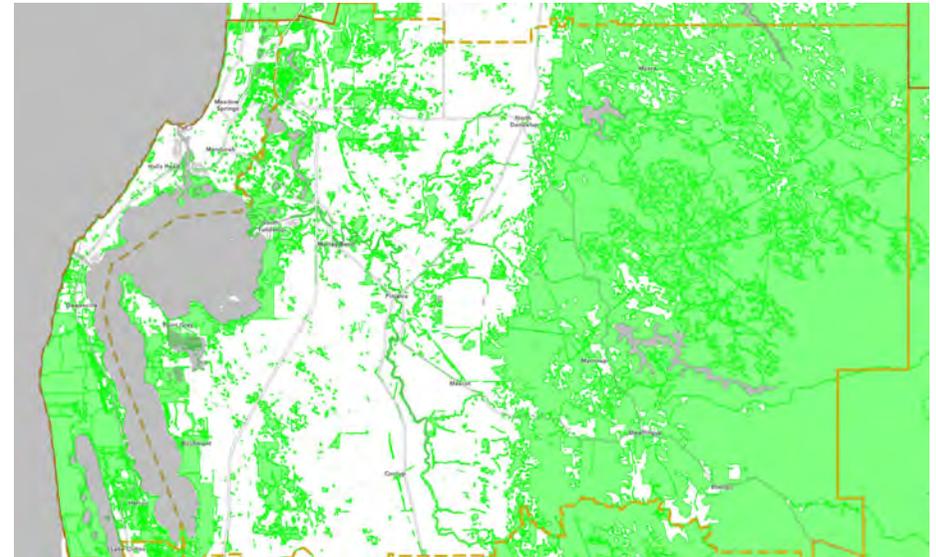


4.4.10 Vegetation and flora

The Shire of Murray extends over part of the Swan Coastal Plain and the Darling Range. The vegetation cover of the Darling Range is largely intact because it occurs within State Forest. The natural vegetation of much of the Swan Coastal Plain portion has been extensively altered by agricultural land use practices. This places significant conservation

value on all remaining (remnant) vegetation areas. These are shown on Figure 64.

Figure 64: Remaining native vegetation extent



The original natural vegetation of the Shire is described at broad scale by Beard (1979) and is strongly related to the geomorphic elements discussed earlier. Within the Darling Plateau the principal vegetation cover is a Jarrah (*Eucalyptus marginata*) - Marri (*E. calophylla*) open forest. Tree admixtures include Sheoak (*Allocasuarina fraseriana*) on the sandier soils and Bull Banksia (*Banksia grandis*) on the gravelly soils. On the younger, deeper soils along the scarp, a woodland to open woodland of Marri and Wandoo (*E. wandoo*) is present. The distinctive Christmas Tree (*Nuytsia floribunda*) occurs as an admixture. Understorey species include Hakea lissocarpa, Zamia Palms (*Macrozamia reidleyi*) and Blackboys (*Xanthorrhoea preissii*).

Within the Foothills on the Swan Coastal Plain, remnants of the Jarrah - Marri forest occur on lateritic sandy soils along with Banksia, Sheoak, Blackboy and ground covers. On the Pinjarra Plain immediately to the west, only small remnants of Marri and Wandoo remain with shrub layers and ground covers having been largely replaced by pasture.

Within the well-drained portions of the Bassendean Dune System, areas of Jarrah-Marri woodland occur giving way to Jarrah-Banksia to the east with Swamp Banksia (*Banksia littoralis*), Flooded Gum (*E. rudis*), bulrushes and sedges in the low-lying swampy areas.

In the western portion of the Shire between Point Grey and Lake McLarty, the dominant vegetation is an open forest of Jarrah, Marri and Tuart (*E. gomphocephala*) with an understorey of Banksia, Peppermint (*Agonis flexuosa*) and Sheoak. Along the Peel-Harvey Estuary shoreline, Swamp Sheoak (*Casuarina obesa*) and Salt Water Paperbark (*Melaleuca cuticularis*) are common and samphire marshes occur on low-lying, periodically inundated land.

Vegetation within the Shire can be classified into vegetation complexes, which correspond to distinct plant communities associated with specific geological and soil formations. Table 36 summarises the key vegetation complexes within the Shire, the remaining extent within the Shire and their conservation status compared to pre-European coverage on both a local and regional scale.

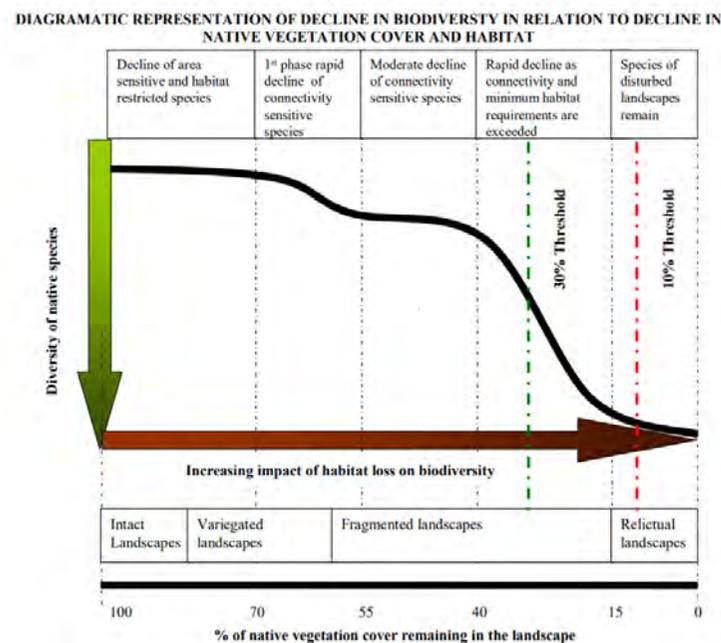
Table 36: Remaining extent of vegetation complexes

Vegetation complex	Pre-European extent (ha)	Remaining extent (Shire) (ha)	Remaining extent (Shire) (%)	Remaining extent (regional) (%)
Cannington	10,497	1,701	16	13
Forrestfield	5,087	558	11	12
Guildford	28,555	1,682	6	6
Serpentine River	493	42	9	11
Swan	4,082	566	14	14
Bassendean – Central & South	13,703	3,057	22	28
Cottesloe Central & South	1,809	770	43	35
Darling Scarp	6,651	2,997	45	42
Herdsmen	1,550	595	38	35
Southern River	6,556	1,526	23	20
Vasse	5,129	1,823	36	35
Cooke	1,713	1,634	95	83

Dwellingup 1	44,419	40,281	91	88
Dwellingup 2	236	236	100	84
Helena 1	2,399	2,100	88	76
Murray 1	9,265	6,768	73	77
Pindalup	89	89	100	77
Swamp	1,252	1,231	98	76
Yarragil 1	15,080	13,424	89	82
Yarragil 2	11,271	10,776	96	93
Yoongarillup	273	106	39	39
No data		122		
Total	170,111	92,087		

The biodiversity protection threshold, as identified in the Shire of Murray Local Biodiversity Strategy, recommends that at least 30% of the original extent of each vegetation complex be retained to support ecological resilience. However, many vegetation complexes within the Shire have already been cleared below this threshold, increasing the risk of biodiversity loss and ecosystem degradation. The remaining native vegetation is often fragmented, reducing connectivity and impacting species movement.

Figure 65: Biodiversity based on native vegetation cover



Source: (Smith and Siversten, 2001)

The Shire of Murray contains diverse and significant flora, including several threatened species and ecological communities protected under State and Commonwealth legislation. Key threatened species, such as *Caladenia huegelii* and *Drakaea elastica*, are highly sensitive to habitat loss, altered fire regimes, and hydrological changes. Threatened Ecological Communities, including Banksia Woodlands, Clay Pans, Coastal Saltmarsh, and Tuart Forests, face pressures from land clearing, climate change and invasive species. Conservation efforts must focus on protecting remnant vegetation, restoring ecological corridors, managing hydrology, and implementing fire and disease management strategies. Land use planning in the Shire should

integrate biodiversity sensitive development and mitigate urban impacts to ensure long term ecosystem health and resilience.

4.4.11 Ecological linkages

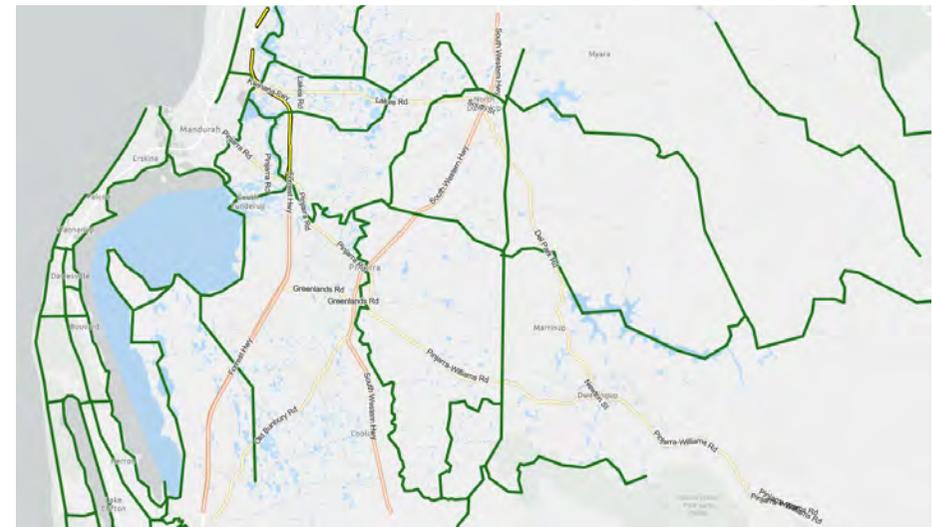
Key ecological linkages play a vital role in connecting isolated habitats, enabling species movement and promoting genetic diversity. These linkages are crucial for mitigating habitat fragmentation and supporting species resilience, particularly in response to climate change.

Key ecological linkages have been identified in the South West Regional Ecological Linkages report and include:

- Peel-Harvey Estuary Linkage: This wetland area forms a critical ecological corridor for migratory waterbirds and aquatic species. Preserving its integrity is essential for species conservation.
- Murray River Linkage: The river and its riparian zones serve as an important ecological corridor, supporting a range of flora and fauna. Buffer zones should be maintained to protect water quality and allow species movement.
- Darling Scarp and Swan Coastal Plain Linkages: These areas connect inland woodlands and forests with coastal heathlands and wetlands, facilitating species movement across diverse ecosystems.
- Wetland and Heathland Corridors: Located in the northern and western parts of the Shire, these areas are vital for species such as frogs, waterbirds, and small mammals.

These ecological linkages are shown in Figure 66.

Figure 66: South west regional ecological linkages



South West Regional Ecological Linkages Axis Lines

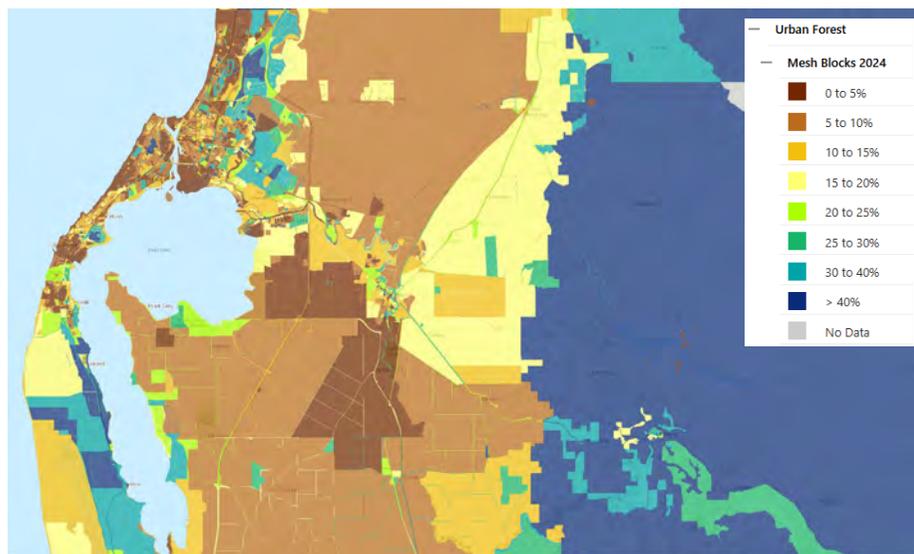
Source: WALGA/DEC, 2009

4.4.12 Urban tree canopy

Urban tree canopy is an essential environmental and social asset, linked to liveability, public health, climate resilience, biodiversity and place identity. The WAPC and WALGA's Better Urban Forest Planning framework, as well as the emerging Perth & Peel Urban Greening Strategy, emphasise the need for local governments to retain mature trees, plant canopy forming species and establish strategic canopy targets. Protection and improvement in tree canopy will be important consideration in Murray with its significant forecast growth.

This Strategy should support a policy framework that establishes canopy targets, protects significant trees, mandates canopy provision in new development and encourages streetscape and public realm greening to manage heat, reinforce identity and support biodiversity and community amenity.

Figure 66: Tree canopy extent 2024



Source: DPLH

4.4.13 Energy use and emissions reduction

Energy use and emissions reduction in the Shire of Murray are important considerations in achieving sustainable development and mitigating climate change impacts. The Shire, like much of Western Australia, relies on traditional energy sources, including natural gas and electricity from the grid, with a growing focus on transitioning to renewable energy solutions. As the Shire experiences urban growth

and increased residential and commercial activity, energy consumption is expected to rise.

Energy use and emissions reduction in the Shire of Murray are essential elements of the region's sustainability efforts. Currently the Shire, like much of Western Australia, relies on traditional energy sources such as electricity from the grid and natural gas. These energy sources contribute to the Shire's carbon emissions, which are projected to rise with the growth in residential, commercial, and industrial activities. Additionally, oil and fuel consumption, particularly in the transport sector, are significant sources of greenhouse gas emissions. As the Shire experiences continued development and growth, addressing energy use in all sectors will be crucial to achieving long term sustainability and emission reduction goals.

Land use planning plays a key role in managing energy consumption by promoting sustainable urban planning principles. This includes encouraging compact, mixed-use developments that minimise transportation energy needs, enhancing the use of energy efficient buildings, providing for renewable energy sources and increasing green infrastructure that reduces the heat island effect and lowers energy demands for cooling.

4.5 Infrastructure

4.5.1 Transport

The Shire of Murray faces significant transport challenges due to its dispersed population with multiple townsites and settlements, low density development pattern and very limited public transport, cycling and pedestrian infrastructure. Residents are at present almost entirely reliant on private vehicles for daily travel. This car dependent transport system makes it difficult for many people, especially those without access to a car to move around efficiently, limiting mobility options and reinforcing social, economic and environmental disadvantages. High levels of car dependency contribute to traffic congestion, transport inequity, increased household transport costs and environmental impacts such as carbon emissions and reliance on fossil fuels.

As the transport system grows to cater for the increasing population, the key challenge for the Shire is to transition to a more sustainable land use pattern while providing road, public transport and active transport infrastructure that supports viable and convenient alternative travel modes. This requires expanding and adapting existing transport infrastructure in an efficient and integrated manner to meet the movement needs of the future population.

Road transport network

Main settlement areas within the Shire are connected by Primary Distributor or Regional Distributor roads, as shown within the Main Roads WA road hierarchy mapping in Figure 67.

Primary Distributor: Provide for major regional and inter-regional traffic movement and carry large volumes of generally fast moving traffic. Some are strategic freight routes and all are State Roads. They are managed by Main Roads Western Australia.

Regional Distributor: Rural (Non Built Up Area) - Roads that are not Primary Distributors but which link significant destinations and are designed for efficient movement of people and goods within and beyond regional areas.

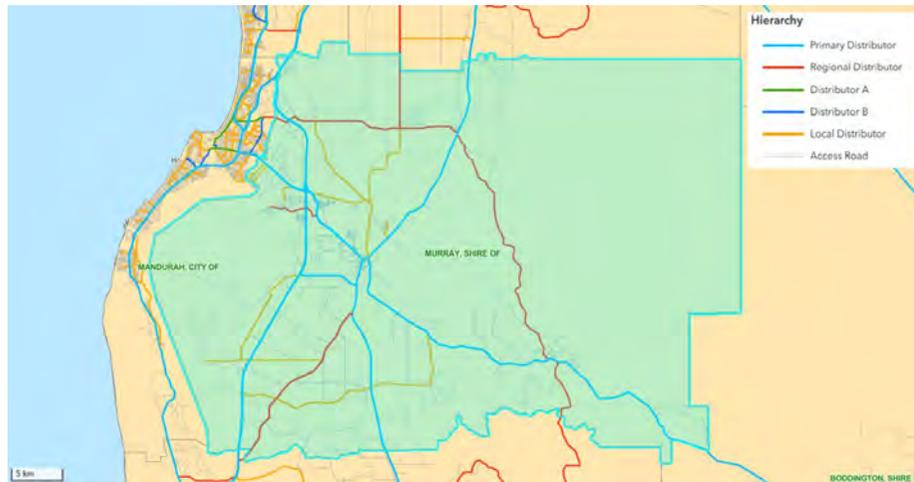
District Distributor A (Urban areas) - Carry traffic between industrial, commercial and residential areas and generally connect to Primary Distributors. These are likely to be truck routes and provide only limited access to adjoining property. They are managed by local government.

District Distributor B: (Urban areas) - Perform a similar function to type A District Distributors but with reduced capacity due to flow restrictions from access to and roadside parking alongside adjoining property.

Local Distributor: (Urban areas) - Roads that carry traffic within a cell and link District Distributors or Regional Distributors at the boundary, to access roads.

Rural Local Distributor - (Non Built Up Area) - Connect to other Rural Distributors and to Rural Access Roads. Not Regional Distributors, but which are designed for efficient movement of people and goods within regional areas.

Figure 67: Road transport network

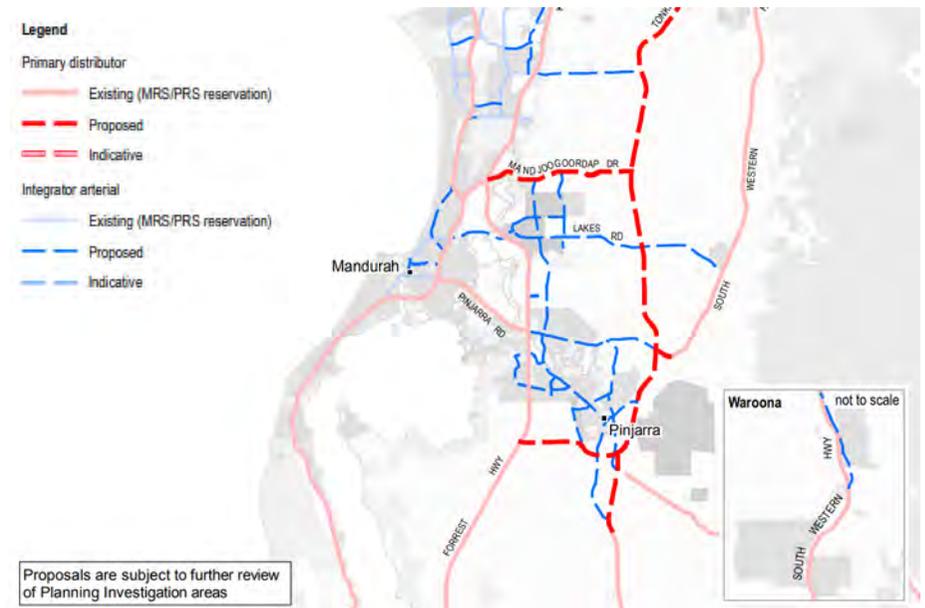


Source: Main Roads WA

The Planning Framework sets out a future regional road network, which includes a number of new and upgraded primary distributor and integrator arterial roads as shown on Figure 68.

The key changes to the Primary Distributer roads include the southern extension of the Tonkin Highway to connect with Greenlands Road, deviating around the eastern side of Pinjarra and South Western Highway; an extension of Mandjoogoordap Drive eastward from the Kwinana Freeway to the Tonkin Highway extension and on to South Western Highway; and the downgrading of the portion of Pinjarra Road between the Kwinana Freeway and Pinjarra to an Integrator Arterial.

Figure 68: 2050 Regional Roads



Source: South Metropolitan Peel Sub regional Planning Framework

Integrator Arterials are proposed to support the Nambeelup Industrial Area and growing urban areas at Ravenswood, South Yunderup and Pinjarra. This includes new links between Lakes Road and Pinjarra Road and between Kwinana Freeway and the Tonkin Highway extension. Upgrades to Pinjarra Road, including additional lanes between Mandurah and South Yunderup Road may be required to accommodate increasing traffic demand. Two new connections are also provided to the Kwinana Freeway/Forreest Highway at Rogers Road and Beacham Road (north-facing ramps only).

A number of key transport areas that will require further refinement, network design consideration, or detailed testing as part of future district

and local structure planning. These refinements will ensure that the network can accommodate the projected growth, support new employment and residential areas and align with desired town centre and walkability outcomes. The Main Roads WA regional transport model will also need to be recast to ensure that it adequately covers the Shire's strategic road network, particularly in the area between Lakes Road and Greenlands Road, where major urban growth and employment development is occurring. The key areas requiring further consideration are listed below:

- The suitability of extending the northern portion of the Pinjarra Western Deviation north to connect with Pinjarra Road and realigning the southern section to intersect Greenlands Road, further west of the Oilseed site.
- The capacity and configuration of the Kwinana Freeway/Pinjarra Road interchange, including provision for dedicated transit lanes, sufficient traffic and turning lanes and safe, continuous cycling and pedestrian paths.
- The capacity of the Lakes Road/Kwinana Freeway interchange, which will become increasingly critical as the Nambelup Industrial Area grows and Lakes Road evolves into a major east west arterial.
- The proposed realignment of Pinjarra Road at Ravenswood, and the scale, form and interface of the intersection with Old Mandurah Road, which will significantly influence the functionality and pedestrian amenity of the Ravenswood District Centre.
- The downgrade of Pinjarra Road between Ravenswood and Pinjarra, especially within the Pinjarra Secondary Centre, to support a more urban, street based environment, with improved walkability and built form integration.

- The adequacy of access to South Yunderup, particularly in the context of the Urban Investigation Area, south of the Austin Lakes estate.
- The merit in identifying and protecting a continuous north south integrator arterial corridor linking Greenlands Road to the Nicholson Road extension in the north of the Shire, including consideration of a future river crossing at Ravenswood East.
- The need for intersection upgrades and widening along Pinjarra Road.

Public Transport Network

Public transport infrastructure and services within the Shire of Murray are currently very limited. The South West Railway runs through the Shire, with the Australind train service providing a twice-daily connection between Perth and Bunbury. Train stops are located at North Dandalup and Pinjarra, although service frequency and accessibility are limited.

Bus services are similarly constrained. The 600 bus route operates on weekdays between Pinjarra and Mandurah Station, providing 14 services in each direction designed primarily to support commuter travel. No weekend services are available. The 604 and 605 routes extend once daily on weekdays to North and South Yunderup, Ravenswood and the Murray River Country Estate, offering only basic access for residents in these areas. The current extent of the local bus network is shown in Figure 69.

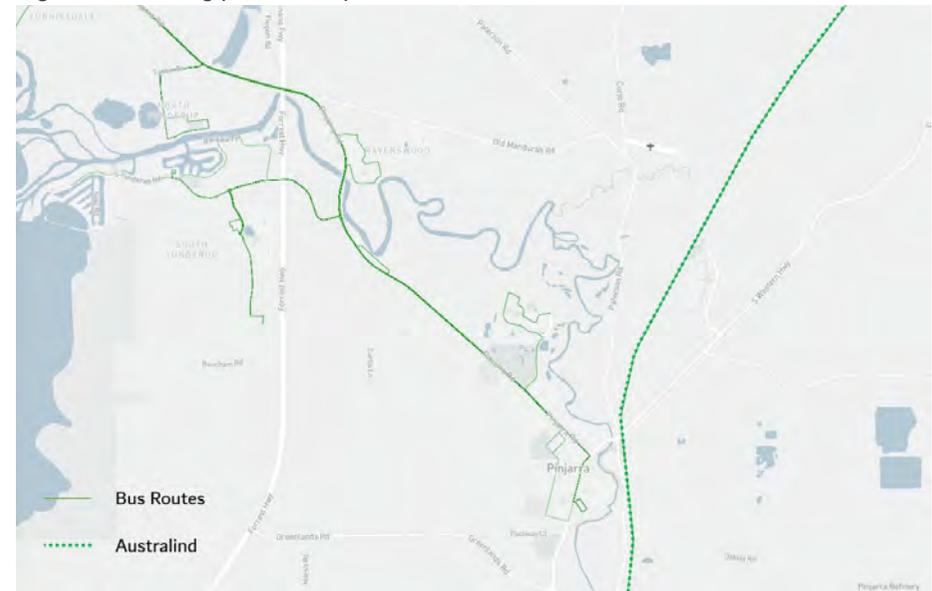
As the Shire continues to grow, the establishment of an integrated and efficient public transport system will be essential to support sustainable urban expansion, reduce car dependency and promote community

connectivity. A high priority transit corridor along Pinjarra Road, connecting Pinjarra with Mandurah, is identified in the Planning Framework as the spine of the future public transport network. Coordinated land use and transport planning will be needed to support the viability of this corridor, including:

- Locating activity centres, employment areas and higher density residential development along the route;
- Designing walkable, compact neighbourhoods within walking distance of transit stops; and
- Ensuring strong integration with local bus services, cycling and pedestrian infrastructure.

Improved bus connections between key settlements and major employment areas, particularly the Peel Business Park, will also be a priority to support workforce mobility. The delivery of strategically located park and ride facilities will further enhance accessibility and encourage greater public transport use across the Shire.

Figure 69: Existing public transport network



Source: Planwisely

Pedestrian and bicycle network

The Shire of Murray's existing pedestrian and bicycle network is fragmented, inconsistent and in many areas inadequate. In numerous residential streets, footpaths are provided on only one side or not at all, making walking and cycling inconvenient and in some cases unsafe. Where paths do exist, they are often narrow and located directly adjacent to the kerb, offering a poor level of comfort and safety for users. The absence of continuous and high quality infrastructure discourages walking and cycling, forcing pedestrians, cyclists, and other vulnerable users onto the road network, thereby increasing safety risks and reducing overall accessibility.

Shared path connections between townsites and settlements are also limited, restricting opportunities for active travel and reinforcing car dependency for even short trips. These issues are compounded by the dispersed settlement pattern of the Shire, with many townships lacking local services, shops and schools that would otherwise support daily active transport. As a result, private vehicles remain the dominant mode of travel, with implications for community wellbeing, public health, social inclusion and sustainability.

To address these issues, a comprehensive and integrated active transport network should be embedded in all future structure plans, ensuring development delivers high quality walking and cycling outcomes that meet contemporary planning and accessibility standards. Priority actions include:

- Delivering continuous, safe and accessible pedestrian and cycling infrastructure within urban areas, connecting residential neighbourhoods to schools, activity centres, public transport stops and open space.
- Providing regional shared path connections between towns and employment precincts to encourage cycling as a viable mode for work and recreation.
- Improving infrastructure standards by incorporating wider paths, dedicated cycle lanes, safe pedestrian crossings, lighting and wayfinding signage to improve user safety, comfort and legibility of the network.
- Integrating the Shire's western network with the broader system in the City of Mandurah, supporting seamless connections to major destinations including Mandurah Train Station and regional activity centres.

Future district and local structure plans must be designed with walkability and cycling connectivity as core principles from the outset. In the longer term, opportunities should be identified to establish strategic cycling corridors along major transport and environmental corridors, promoting both commuter mobility and recreational use, and supporting the Shire's transition to a healthier, more sustainable and better connected community.

Smart Transport Technology

Emerging smart transport technologies present a valuable opportunity to help address many of the Shire's current and future transport challenges. These innovations can improve connectivity, reduce private vehicle dependency and enhance accessibility, particularly in lower density and more isolated areas.

Shared mobility options such as ride sharing, car sharing and bike sharing could offer more flexible transport choices, especially where conventional public transport is limited. Future developments should be encouraged to incorporate infrastructure that supports these services, alongside provisions for electric vehicles (EVs) and autonomous vehicles (AVs). This includes EV charging stations, adaptable urban design and flexible parking configurations to support evolving transport needs.

As delivery drones and air taxis emerge as part of the freight and passenger transport mix, planning for the integration of drone landing pads and skyport facilities in or adjacent to key commercial and industrial areas will become increasingly important. AVs also have the potential to improve transport efficiency and road safety, requiring investment in smart traffic management systems, dedicated AV

infrastructure and long term strategies to repurpose redundant parking areas for alternative uses.

Autonomous transit systems may enhance the viability and timing of expanded public transport options across the Shire, particularly in less populated areas, by reducing operational costs and increasing service flexibility.

The continued growth in EV adoption will also necessitate widespread and accessible charging infrastructure within residential neighbourhoods, town centres and employment areas. Likewise, support for micro mobility solutions, including e-scooters and e-bikes, can enhance first and last mile connections, reinforcing the need for dedicated lanes, secure parking and safe integration with existing path networks.

Given the rapid pace of change in transport technology, the Shire should proactively monitor emerging trends and remain flexible in its planning framework to accommodate new opportunities as they arise, ensuring long term resilience, sustainability and accessibility in its transport network.

4.5.2 Service infrastructure

Electricity

The Shire of Murray is serviced by a network of 132kV and 330kV high-voltage transmission lines, which distribute electricity via transition terminals and substations. Current power supply infrastructure includes terminals at Pinjarra, Ravenswood and the Alcoa Refinery, with a new terminal planned at Ravenswood to accommodate future demand. Additional substations are proposed at Barragup, Nambeelup, Ravenswood (North) and West Pinjarra. New 132kV overhead transmission lines will connect the growing communities of Pinjarra, Ravenswood and the Nambeelup Industrial Area to the broader South West Interconnected System (SWIS).

To support system maintenance and expansion, Western Power established a dedicated depot in the Pinjarra Industrial Estate in 2020. This facility includes high voltage testing infrastructure, fleet maintenance areas, operational workshops and environmental management facilities.

The presence of 132kV and 330kV high tension transmission corridors provides a strategic opportunity for grid connected renewable energy infrastructure, such as battery energy storage systems, utility scale solar farms and wind energy generation. Notably, the Peel Business Park has pioneered a 1MW ground mounted solar array with integrated battery storage as part of a microgrid, which will supplement the SWIS network and reduce energy costs for high demand users. Additional rooftop solar capacity will be added over time through leaseholder agreements.

High voltage transmission corridors present land use constraints. Required easements limit development in the immediate vicinity of high

tension lines to allow for maintenance access and to ensure public safety. Furthermore, the visual impact of overhead powerlines affects local landscape character.

The Local Planning Strategy should:

- Facilitate appropriately located renewable energy infrastructure;
- Promote the undergrounding of power lines in established areas to enhance safety and visual amenity as part of any infill or revitalisation proposals;
- Ensure zoning adjacent to transmission corridors supports compatible uses such as open space, agriculture;
- Mitigate visual impacts through sensitive siting and landscape design; and
- Remain adaptable to accommodate emerging technologies and changing energy distribution models.

Water and waste water

The Shire of Murray's water and wastewater infrastructure is part of a broader regional network that incorporates surface water, groundwater, wastewater and desalinated seawater. Water is conveyed through trunk mains to treatment facilities and storage reservoirs, with future demand requiring additional water storage infrastructure at Nambeelup and Pinjarra to support planned urban growth.

Potable water supply is primarily drawn from the Water Corporation's Integrated Water Supply System, which services the Pinjarra – Ravenswood corridor and the Alcoa Refinery through established treatment plants, reservoirs and pump stations.

The Peel Integrated Water Initiative has explored non-climate dependent water sources, including managed aquifer recharge (MAR), wastewater recycling and water licence trading as a means to enhance long term water security. MAR schemes in particular could help replenish groundwater, with up to 2 gigalitres per annum identified as feasible for harvesting in the medium term. This would support strategic initiatives such as Transform Peel and intensification of agricultural production.

Wastewater services in the Shire are currently provided by treatment plants at Gordon Road (in the City of Mandurah) and Pinjarra, with a future treatment plant proposed at Nambeelup. Water Corporation has secured land in Nambeelup to enable future treated wastewater reuse or disposal, aligning with broader regional wastewater management objectives.

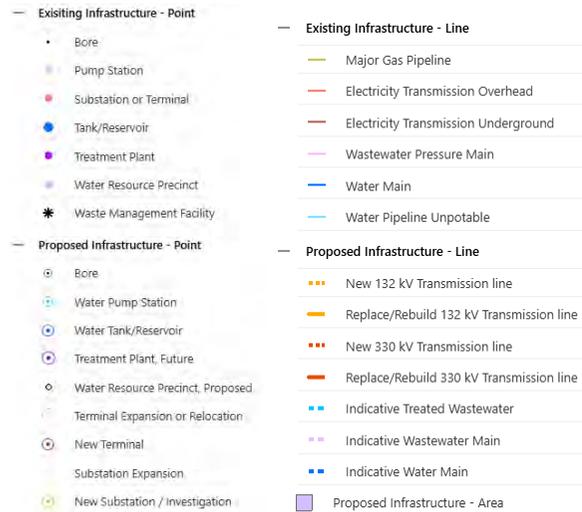
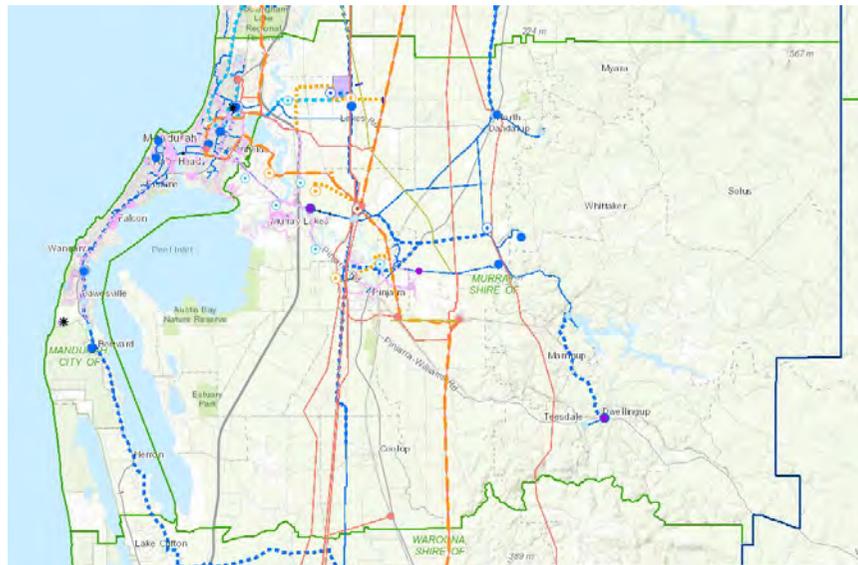
While most growth areas are planned for reticulated services, some residential areas continue to rely on on-site effluent disposal systems. Infill sewer extensions are therefore critical to improving environmental outcomes and enabling medium to higher density development. Dwellingup, due to its soil conditions, will continue to rely on on-site wastewater management, as reticulated sewerage is not feasible.

Key wastewater infrastructure upgrades include trunk pressure mains along the Kwinana Freeway (Ravenswood North) and Lakes Road, linking to the Gordon Road treatment facility and the proposed Nambeelup reuse/disposal site. While Water Corporation has planned for water and wastewater services in all currently zoned Urban and Urban Deferred land, further investigation is required to confirm servicing strategies for other future urban areas.

The Local Planning Strategy should:

- Support the orderly and staged extension of water and wastewater infrastructure;
- Advocate for infill sewer projects to improve environmental health and enable more intensive development outcomes;
- Incorporate water sensitive urban design principles in new developments;
- Advocate for and facilitate strategic infrastructure, such as MAR schemes, wastewater recycling and reuse and additional water storage facilities to ensure long term sustainability of water resources.

Figure 70: Service infrastructure



Source: WAPC South Metropolitan Peel Sub-regional Planning Framework

Drainage

The Shire of Murray's drainage system forms part of the broader network of rural drains developed across the flat, low lying Peel-Harvey Coastal Plain catchment. Effective management and ongoing enhancement of this network are essential to improving regional water quality, managing nutrients and mitigating flood risks. Restoration programs, led by the Peel-Harvey Catchment Council, are progressively retrofitting rural drains to incorporate best practice water sensitive urban design (WSUD) measures. These upgrades may include detention basins, amended soils, nutrient-stripping vegetation and other interventions that treat stormwater before it enters environmentally sensitive wetlands and waterways.

All new urban development proposals must address surface water and drainage in accordance with the *Murray Drainage and Water Management Plan* and relevant regional water strategies. This ensures that development protects ecological function, maintains water quality and reduces flood impacts. Opportunities to develop alternative 'fit-for-purpose' water sources, such as MAR, which has been trialled in Nambeelup, and water reuse schemes, offer further potential to manage surface water more sustainably. These approaches can provide supplementary water for industry, public open space irrigation, and agri-food production, while also helping to reduce nutrient discharge into the Peel-Harvey estuarine system.

The Strategy should support integrated water cycle management by:

- Promoting WSUD principles in all new development and redevelopment areas;

- Supporting the retrofitting and redesign of rural drainage infrastructure to meet environmental and flood mitigation objectives;
- Advocating for the development of fit-for-purpose water solutions such as MAR and stormwater reuse; and
- Ensuring coordination between land use planning and catchment scale water management strategies.

Gas

Two high pressure natural gas transmission pipelines, being the Dampier to Bunbury Natural Gas Pipeline (DBNGP) and the Parmelia Gas Pipeline, traverse the Shire of Murray, along with four ATCO high pressure distribution pipelines. These pipelines are critical components of Western Australia's energy infrastructure, transporting natural gas to key customers in the South West, including Alcoa's Pinjarra refinery. Due to their strategic importance and associated risk, both transmission pipelines have designated trigger distances, with buffer widths extending up to 300 metres on either side of the pipeline corridor.

Development proposals located within a pipeline's trigger distance must be referred to the relevant pipeline owner or operator for advice on risk mitigation requirements. These may include development setbacks or other design responses to ensure the proposal does not compromise pipeline integrity or pose a safety risk to people. To enable the pipeline operator to assess the impact on the pipeline's Safety Case, proponents should provide the following information:

- The type and nature of the proposed development;

- The applicable AS 2885 land use classification;
- Anticipated development density or lot yield;
- Timeframes for commencement and staging of works (if known); and
- The expected number of road or service crossings over the pipeline (if known).

Based on this information, the pipeline operator will advise whether development setbacks or other risk mitigation measures are required at either the subdivision or development stage. This will ensure that planning outcomes maintain public safety and protect vital gas infrastructure.

To formalise these requirements, a SCA is proposed under LPS6. The SCA will trigger development approval, require referral to the relevant pipeline owner/operator and allow for the application of any necessary planning provisions arising from proximity to high-pressure gas infrastructure.

4.6 Conclusion

Part Two of this Strategy has provided an overview of the relevant planning context, data, analysis and issues arising that are relevant to land use planning and future built form outcomes in the Shire of Murray. The information and interpretation of the implications for the Shire, form the rationale underpinning the Strategy actions contained in Part One.

**Shire of
Murray**

Administration Office

1915 Pinjarra Road, Pinjarra WA 6208
PO Box 21 Pinjarra WA 6208

T: (08) 9531 7777

E: mailbag@murray.wa.gov.au

   @ShireofMurray

murray.wa.gov.au