

Great Southern Denmark

Regional Land Supply Assessment

December 2017





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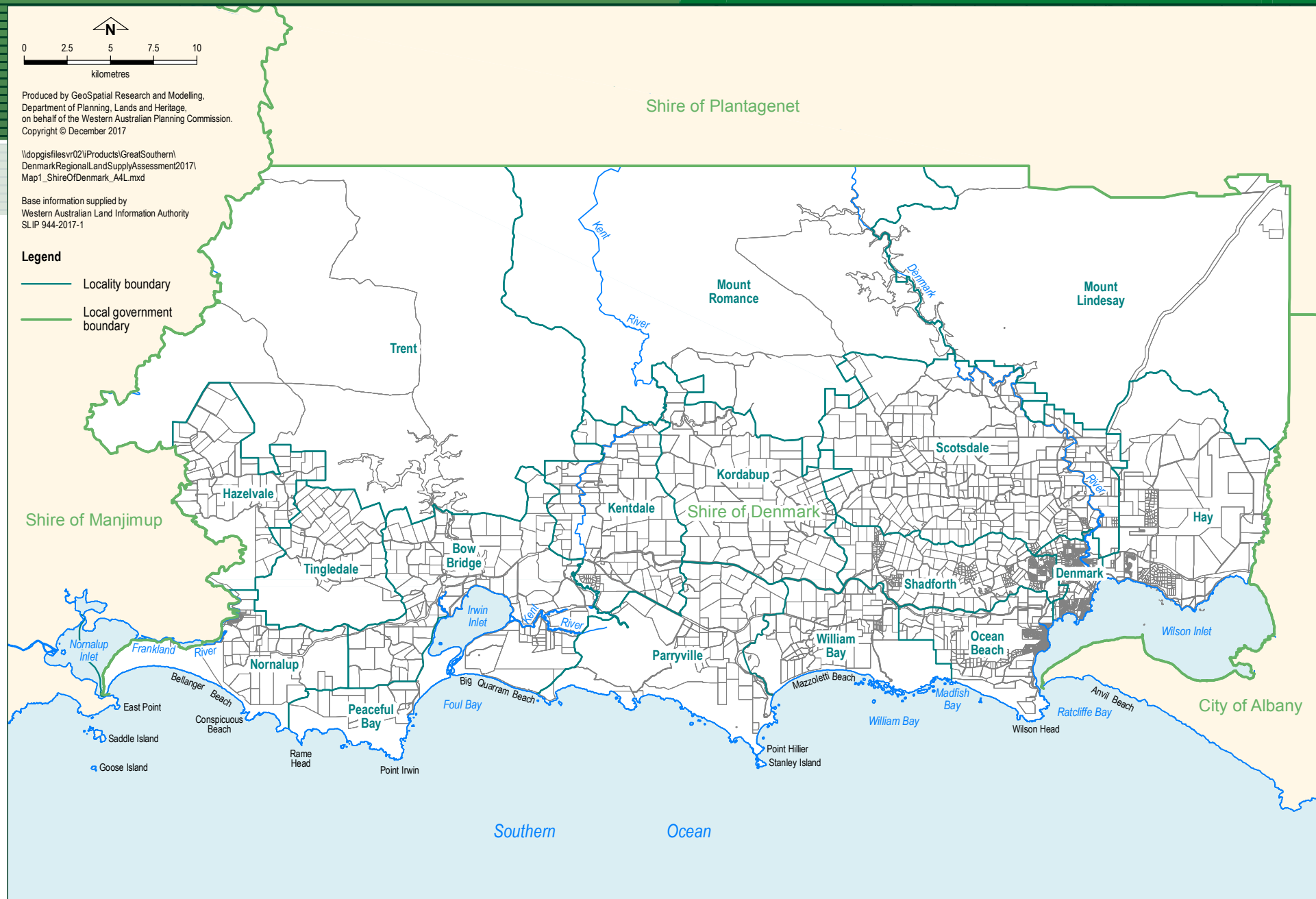
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1 Regional Land Supply Assessments and the Urban Development Program

Regional Land Supply Assessments are prepared as a component of the Western Australian Planning Commission's (WAPC) Urban Development Program (UDP), which tracks and models land supply as per the requirements outlined in the *Planning and Development Act 2005*. The role of the WAPC includes developing models to better understand land supply and development, as well as to promote this understanding as part of the land use planning and development process and better align the provision of infrastructure.

Regional Land Supply Assessments assess land for future residential, industrial and commercial uses, providing context for the land use planning and infrastructure provision required to meet demand across selected regional centres. This report provides information on:

- demand drivers specific to Denmark, including the major economic factors that influence employment and population growth, and therefore, the demand for land and housing;
- zoned land supply for residential, industrial and commercial uses;
- development constraints;
- recent and future land development activity; and
- existing and required physical infrastructure.



Map 1: Shire of Denmark

2 Key points

Population

- The Shire of Denmark covers an area of 1,860 square kilometres in Western Australia's Great Southern region. It is the Great Southern's second most populous local government area, with an estimated resident population (ERP) of 5,964 at June 2016. This accounted for 9.9 per cent of the Great Southern ERP at June 2016.
- The town of Denmark is located approximately 420 kilometres south east of Perth and is the Shire's primary settlement, commercial and administrative centre. The locality of Denmark recorded a population of 2,637 at the 2016 Census.
- Over the decade to June 2016, the Shire recorded an average annual population growth rate of 2.2 per cent, the highest of any local government area in the Great Southern. Comparatively, Western Australia and the Great Southern recorded average annual growth rates of 2.2 and 0.9 per cent respectively.

Distribution, occupancy and future trends

- The majority (86.3 per cent) of the Shire's residents lived in the locality of Denmark and the surrounding localities of Hay, Ocean Beach, Scotsdale and Shadforth at the 2016 Census.
- At the 2016 Census, the Shire recorded a dwelling occupancy rate of 70.8 per cent. This is relatively low compared to the dwelling occupancy rate recorded for Western Australia (86.7 per cent).
- Dwelling occupancy rates are generally higher in the eastern parts of the Shire. At the 2016 Census, the localities of Denmark, Hay, Kordabup and Shadforth recorded occupancy rates higher than 75 per cent.
- In comparison, occupancy rates across the western parts of the Shire were lower. Localities including Bow Bridge, Hazelvale, Nornalup and Peaceful Bay recorded occupancy rates below 70 per cent at the 2016 Census. Peaceful Bay recorded an occupancy rate of just 13.3 per cent.

- For the Shire, the *WA Tomorrow* population forecasts project an average annual growth rate of 1.7 per cent from 2011 to 2026 based on the median (Band C) forecast.
- The Shire of Denmark Local Planning Strategy (2011) sets out a plan to concentrate growth in and around the Denmark townsite. Development outlook analysis indicates that the majority of growth is expected to occur in the Denmark townsite and the surrounding localities of Hay, Ocean Beach, Scotsdale and Shadforth.
- The Local Planning Strategy also identifies the settlements of Peaceful Bay, Nornalup and Bow Bridge as long-term settlement investigation areas.

Key findings

- A hypothetical temporal land supply of 30 years (36 years if the stock of vacant lots is included in the supply capacity) has been identified. This supply has the capacity to support an additional population of approximately 9,000.
- Rural living developments have been popular in recent years within the Shire, with approximately 1,620 hectares of land zoned for rural living purposes. The Local Planning Strategy identifies an additional 560 hectares of land for future rural residential and rural smallholding developments.
- The Shire's stock of industrial land is contained within the Denmark Light Industrial Area (LIA) located in the Denmark townsite, covering approximately 12 hectares. The LIA is at capacity; however, there is limited capacity for industrial expansion due to the drainage conditions and the presence of remnant native vegetation on adjoining undeveloped Crown land parcel.
- A new industrial area for the Shire has been planned as part of the Denmark East Development Precinct project. It has been proposed that the 42 hectare site will accommodate approximately 35 lots once developed.
- Commercial activity in the Shire is centred on the Denmark town centre, which is largely developed.
- The Local Planning Strategy identifies land to the north of the existing town centre as future commercial, in order to meet the need for additional commercial land.

3 Population

The Shire of Denmark covers an area of 1,860 square kilometres in Western Australia's Great Southern region.¹ The town of Denmark is located approximately 420 kilometres south east of Perth.

This report refers to population and other indicator data relating to Denmark. Depending on the context and the source of data, different geographical extents are discussed. A list of the various geographical extents used to describe and compare Denmark and its surrounds is shown in Table 1.

Much of the population data discussed in this report refers to the Australian Bureau of Statistics' (ABS) estimated resident population (ERP). The ERP is based on the Census of Population and Housing's usual residence counts, which is compiled for June 30 of each census year and updated between each census reporting period. These estimates are updated each year, using administrative data from a variety of sources and are rebased each time a census is conducted.

At the 2016 Census, the median age for the Shire's population was 49 years, which is significantly older than the median age for Western Australia (36 years) and the nation (38 years). There is a significant under-representation of persons aged 20 to 29 years in the Shire (5 per cent) compared to Western Australia (14 per cent). This is characteristic of many regional areas in Western Australia, and can be attributed to young adults leaving the area to move to larger population centres for tertiary education or employment.

¹ Shire of Denmark (2017) *Welcome to the Shire of Denmark*. Available online at <http://www.denmark.wa.gov.au>. Access date: June 2017.

Table 1: Local and regional geographic extents

Geography	Description	Population at the 2016 Census	Area (square kilometres)
Great Southern region	The Great Southern region is comprised of two sub-regions and 11 local government areas, including the Shire of Denmark.	59,168 ²	39,007 ³
Lower Great Southern sub-region	The Lower Great Southern sub-region is comprised of four local government areas, including the City of Albany and the shires of Cranbrook, Denmark and Plantagenet.	48,596 ⁴	14,828 ⁵
Local government area	The Shire of Denmark is the second most populous local government area in the Great Southern region.	5,845	1,860
Locality	There are 17 localities in the Shire of Denmark.	-	-
Australian Bureau of Statistics (ABS) Australian Statistical Geography Standard (ASGS) geographies			
Urban Centres and Localities (UCL)	UCLs are a geographical unit that statistically describe Australian population centres with populations exceeding 200 persons. Centres with a core urban population of 1,000 persons or more are considered to be Urban Centres. Smaller centres with populations of 200 to 999 persons are considered to be Localities. It is important to note that the geographic extent of a UCL may change as the urban build out expands. There are two UCLs in the Shire of Denmark; Denmark (Urban Centre) and Ocean Beach (Locality).	-	-
Statistical Area Level 1 (SA1)	SA1s are geographical areas built from whole Mesh Blocks. The SA1s have generally been designed as the smallest unit for the release of Census data. The Shire of Denmark is comprised of 20 SA1s.	-	-
Mesh Block	Mesh Blocks are the smallest geographical area defined by the Australian Bureau of Statistics and form the building blocks for the larger regions of the ASGS. The Shire of Denmark is comprised of 167 Mesh Blocks.	-	-

Source: Australian Bureau of Statistics (2017) 1270.0.55.001 – Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital City Statistical Areas, July 2016

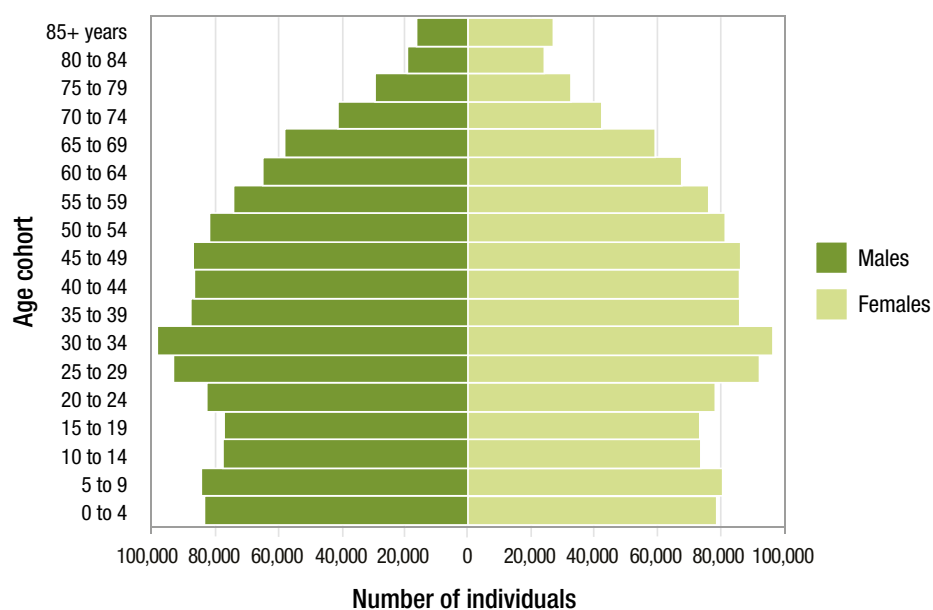
² Denotes the combined population for all local government areas within the Great Southern region at the 2016 Census.

³ Great Southern Development Commission (2013) *Geography*. Available online at <http://www.gsd.c.wa.gov.au/geography>. Access date: November 2016

⁴ Denotes the combined population for the City of Albany and the shires of Cranbrook, Denmark and Plantagenet at the 2016 Census.

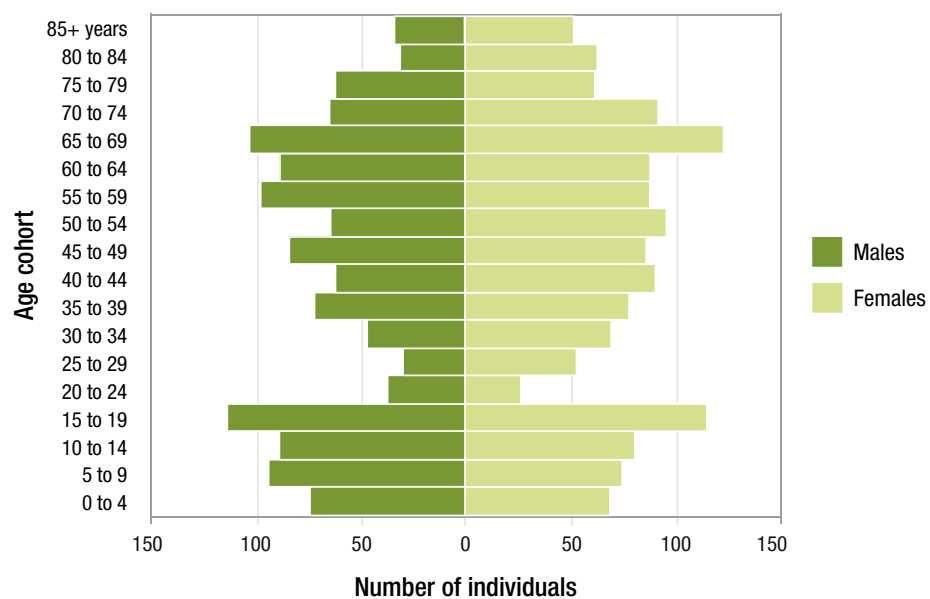
⁵ Western Australian Planning Commission (2016) *Lower Great Southern Strategy*.

Figure 1: Census 2016 Western Australia population profile

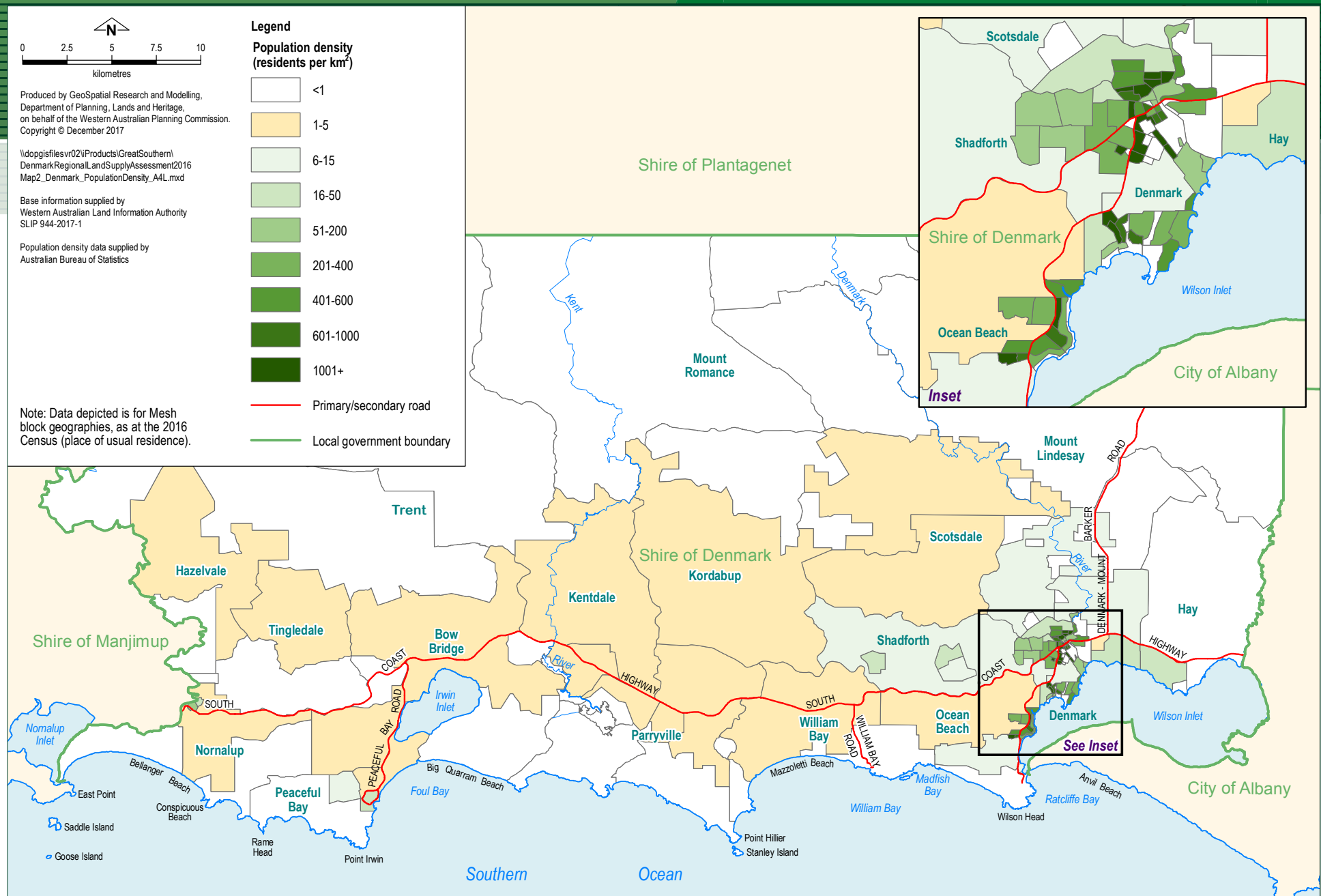


Source: Australian Bureau of Statistics (2017) 2001.0 – Census of Population and Housing, General Community Profile, Australia, 2016

Figure 2: Census 2016 Shire of Denmark population profile



Source: Australian Bureau of Statistics (2017) 2001.0 – Census of Population and Housing, General Community Profile, Australia, 2016

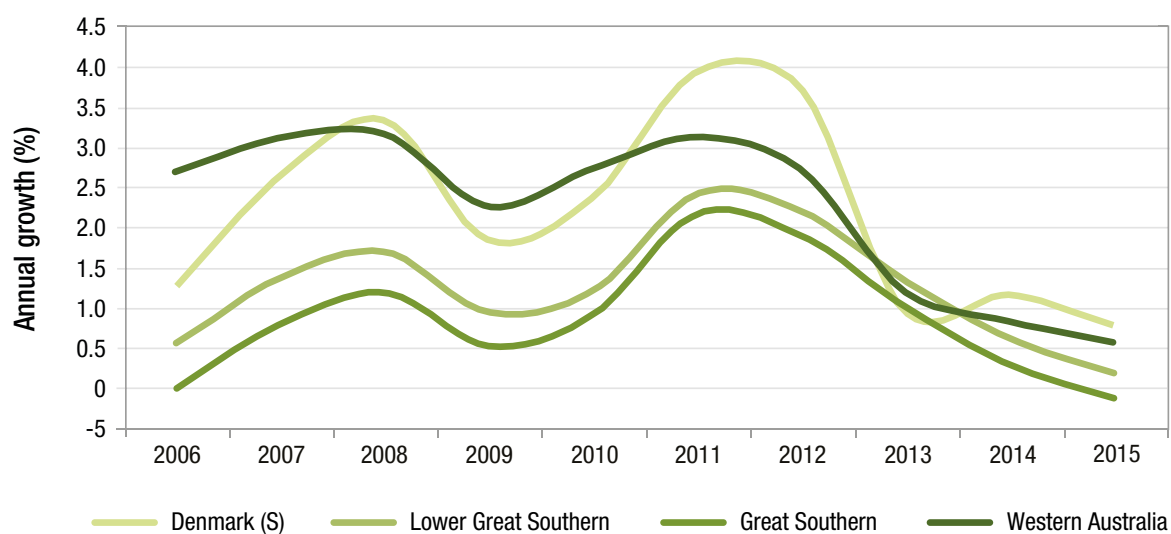


Map 2: Population density - 2016 Census (Mesh Block)

3.1 Population growth

Over the decade to June 2016, the Shire recorded an average annual population growth rate of 2.2 per cent, representing an average annual increase of 117 residents (Figure 3). This is considerably higher than the average annual population growth rates recorded for the Great Southern region (0.9 per cent) and Lower Great Southern sub-region (1.3 per cent) but comparable to Western Australia (2.2 per cent) over the same period. The Shire accounted for 23.3 per cent of the Great Southern's total population growth over the 2006-2016 period.

Figure 3: Estimated resident population growth by year



Source: Australian Bureau of Statistics (2017) 3218.0 – Regional Population Growth, Australia, 2016

3.2 Population projections

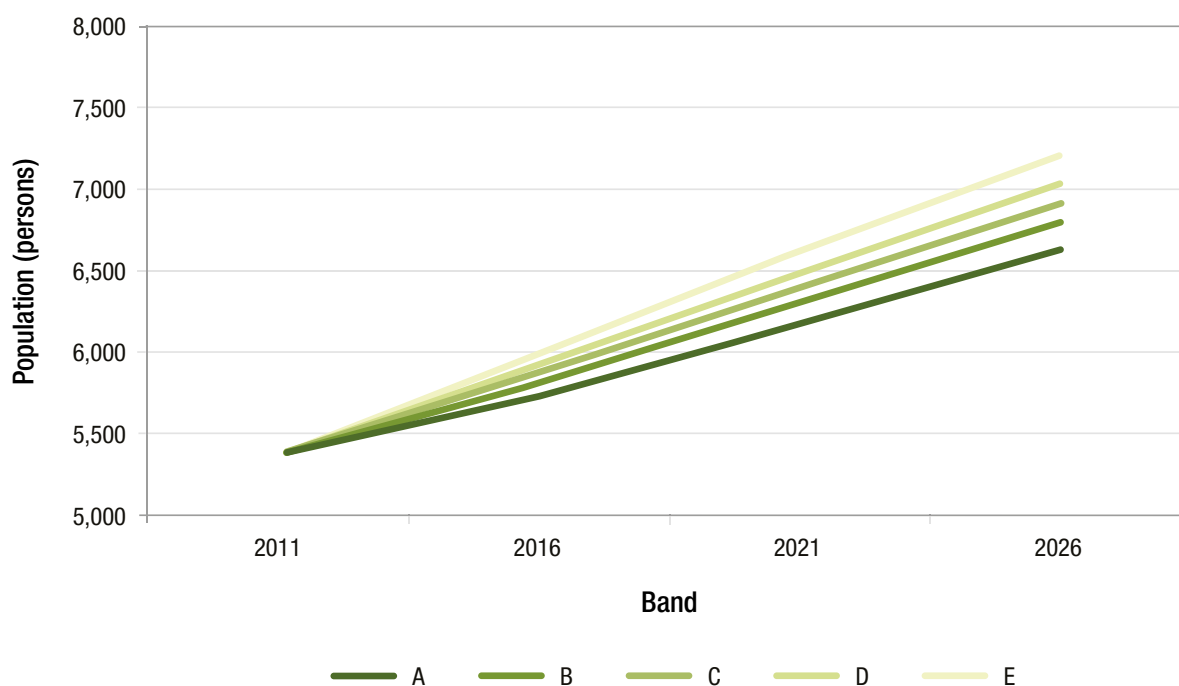
WA Tomorrow forecasts, released in 2015, are prepared using 10,000 forecast permutations that emulate the variability in population change shown in historical data. Each permutation shows possible growth or decline in population, based on five variables (birth rate, death rate, net interstate migration, net intrastate migration and net overseas migration) that occur to varying degrees in each simulation.

The range of *WA Tomorrow* forecasts are grouped into five 'bands', based on the projected rate of population change produced by each simulation. Each band includes one fifth of the permutations, with Band A representing the lowest quintile of projected population growth, Band C the median, and Band E the highest. The *WA Tomorrow* documents publish the median value of each quintile to give five forecasts for each SA2 and local government area in Western Australia.

A more detailed description of the methods and outputs of the *WA Tomorrow* research are available online at <https://www.planning.wa.gov.au/publications/6194.aspx>.

Figure 4 shows the *WA Tomorrow* forecast for the Shire of Denmark for Bands A to E. The resulting projected population for the Shire under the median (Band C) forecast is 6,910 persons in 2026. Achieving this population from a 2011 baseline will require an average annual population increase of 103 persons, or an average annual growth rate of 1.7 per cent.

Figure 4: Forecast population growth - Shire of Denmark



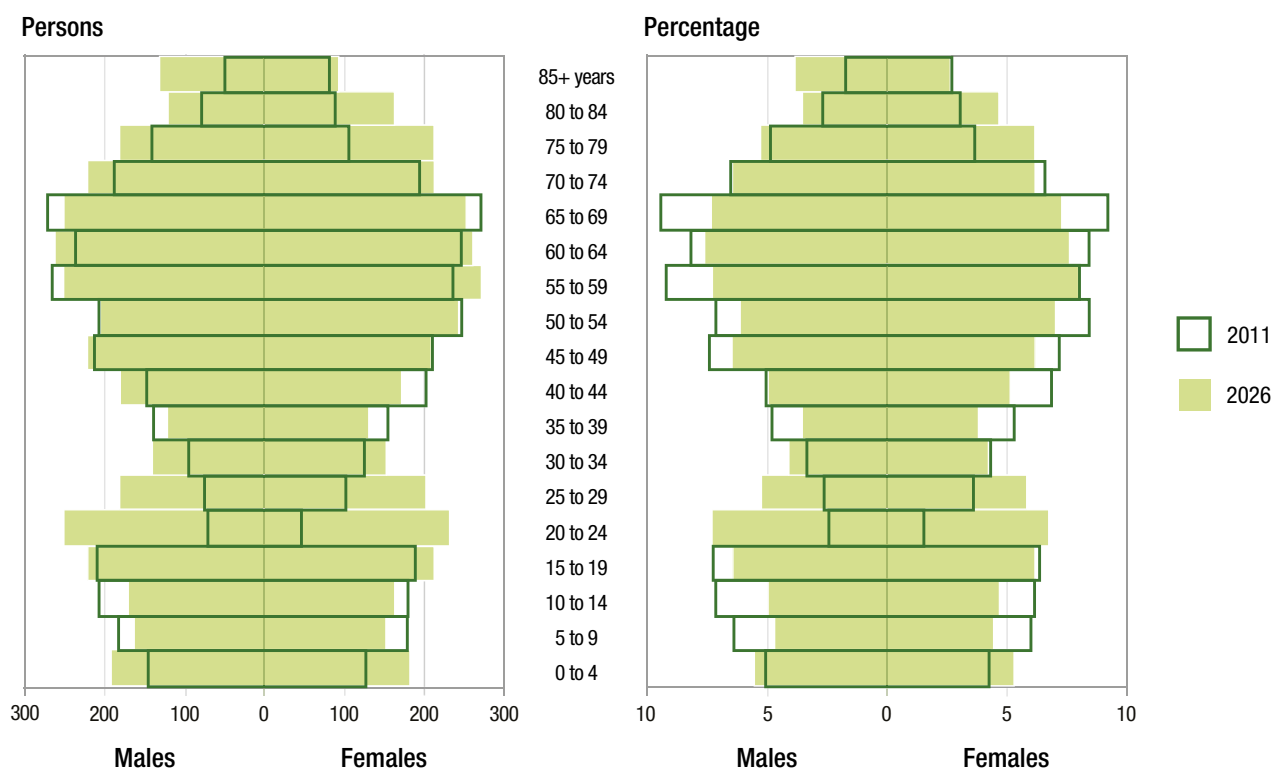
Source: Western Australian Planning Commission (2015) *Western Australia Tomorrow Population Report No. 10*

The demographic profile of the Shire is anticipated to change by 2026. Figure 5 shows the population profile of the Shire at the 2016 Census and the *WA Tomorrow* median (Band C) forecast for the Shire's population at 2026. The age cohorts that show the greatest change under this growth scenario are persons aged 20 to 24 years, 25 to 29 years, and 75 years and over.

For the Great Southern region, the *WA Tomorrow* median (Band C) forecast projects a population of 66,360 at 2026. This would require an average annual population growth rate of 1 per cent from 2011 to 2026, which is in line with the rate of growth over the past decade.

The *Great Southern Regional Investment Blueprint* (2015) aspires to a higher rate of population growth, envisaging a population of 100,000 by 2040. This would represent an average annual growth rate of 2.7 per cent from 2016 to 2040. Achieving this population outcome is contingent on the success of proposed local and regional economic development initiatives, including the delivery of strategic infrastructure and services, and further economic diversification.

Figure 5: Shire of Denmark demographic profile 2016 and 2026 forecast (Band C)



Source: Western Australian Planning Commission (2015) *Western Australia Tomorrow Population Report No. 10* and Australian Bureau of Statistics (2017) *2001.0 – General Community Profile, Australia, 2016*

4 Economic demand drivers

Economic conditions and employment opportunities are fundamental drivers of population growth and demand for housing. The Shire of Denmark has a diverse economic base however agriculture and tourism are established backbones of the Shire's economy. Service based industries, including health care and social assistance, education and training, retail trade and construction have grown in recent years, in line with the Shire's increasing population.

The Shire forms part of the Lower Great Southern sub-region, along with the City of Albany and the shires of Cranbrook and Plantagenet. The sub-region comprises some of the most productive agricultural land in the State and benefits from high rainfall and a cool climate. Increasing employment opportunities and local industry in this region could capitalise on regional economic advantages in tourism and primary production. However, growing secondary and downstream processing industries (particularly within the agricultural and primary production sectors) is proving problematic due to the absence of serviced industrial land in Denmark and Mount Barker, and limited supplies within the City of Albany.

Denmark is a popular tourist destination, attracting an average of 299,400 visitors per annum over the 2015 – 2017 period.⁶ Ensuring the continued appeal of Denmark to tourists will involve increasing the variety of accommodation types and encouraging eco-tourism, in keeping with the objective of achieving sustainable development and promoting iconic experiences.

Stage one of a new industrial area for the Shire has been planned as part of the Denmark East Development Precinct project. In the long term, and following the extension of key infrastructure to the area, the 42 hectare site could accommodate approximately 35 lots once fully developed, providing opportunities for employment and new industries to locate in the area.

⁶ Tourism Western Australia (2017).

5 Residential land and housing

5.1 Overview

At the 2016 Census, 45.1 per cent of the Shire of Denmark's population lived in the locality of Denmark. An additional 41.1 per cent of the Shire's population lived in the surrounding localities of Hay, Ocean Beach, Scotsdale and Shadforth. The Shire of Denmark Local Planning Strategy (2011) sets out a plan to concentrate future growth in and around the Denmark townsite. The Local Planning Strategy identifies three indicative rural nodal settlements: Peaceful Bay, Nornalup and Bow Bridge, with areas of productive rural land to be protected from urban encroachment.

Coastal locations nationally are experiencing population growth due to an increase in lifestyle migration, such as sea change and/or tree change. The Shire has recorded significant population increases based on this trend and is likely to continue to experience growth in the future.

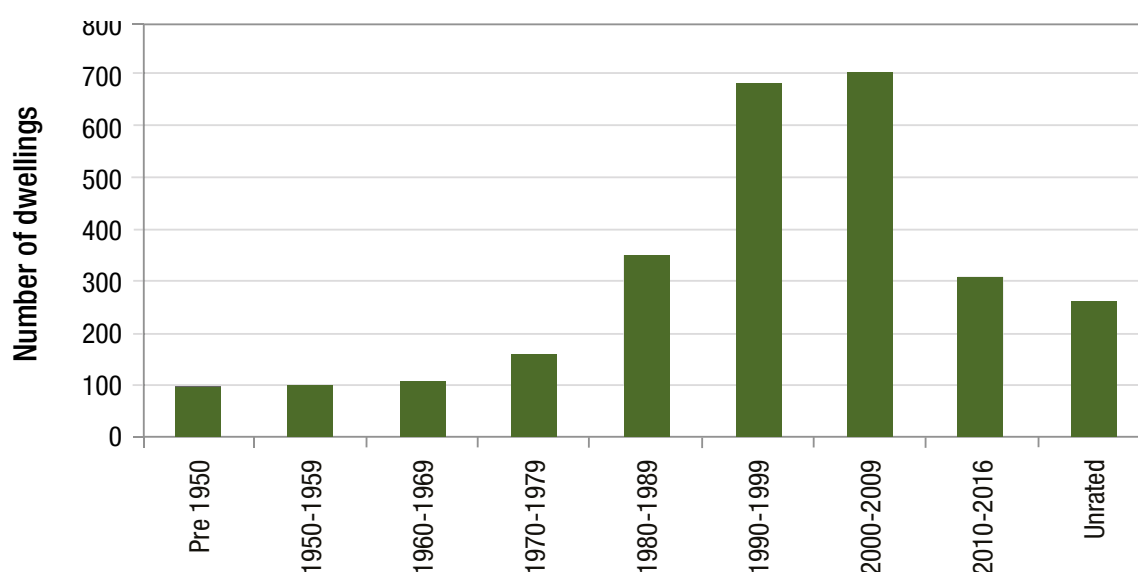
At the 2016 Census, a stock of 3,352 private dwellings was recorded in the Shire. Of these, 29.2 per cent were unoccupied, which is higher than the rate for Western Australia as a whole (13.3 per cent). This is likely to be related to the large number

of dwellings used in the Shire as holiday homes. In addition, dwelling occupancy rates were higher in the eastern parts of the Shire, with the localities of Denmark, Hay, Kordabup and Shadforth recording occupancy rates higher than 75 per cent at the 2016 Census. Comparatively, occupancy rates across the western parts of the Shire were lower, with localities including Bow Bridge, Hazelvale, Nornalup and Peaceful Bay recording occupancy rates below 70 per cent at the 2016 Census. Peaceful Bay recorded an occupancy rate of just 13.3 per cent.

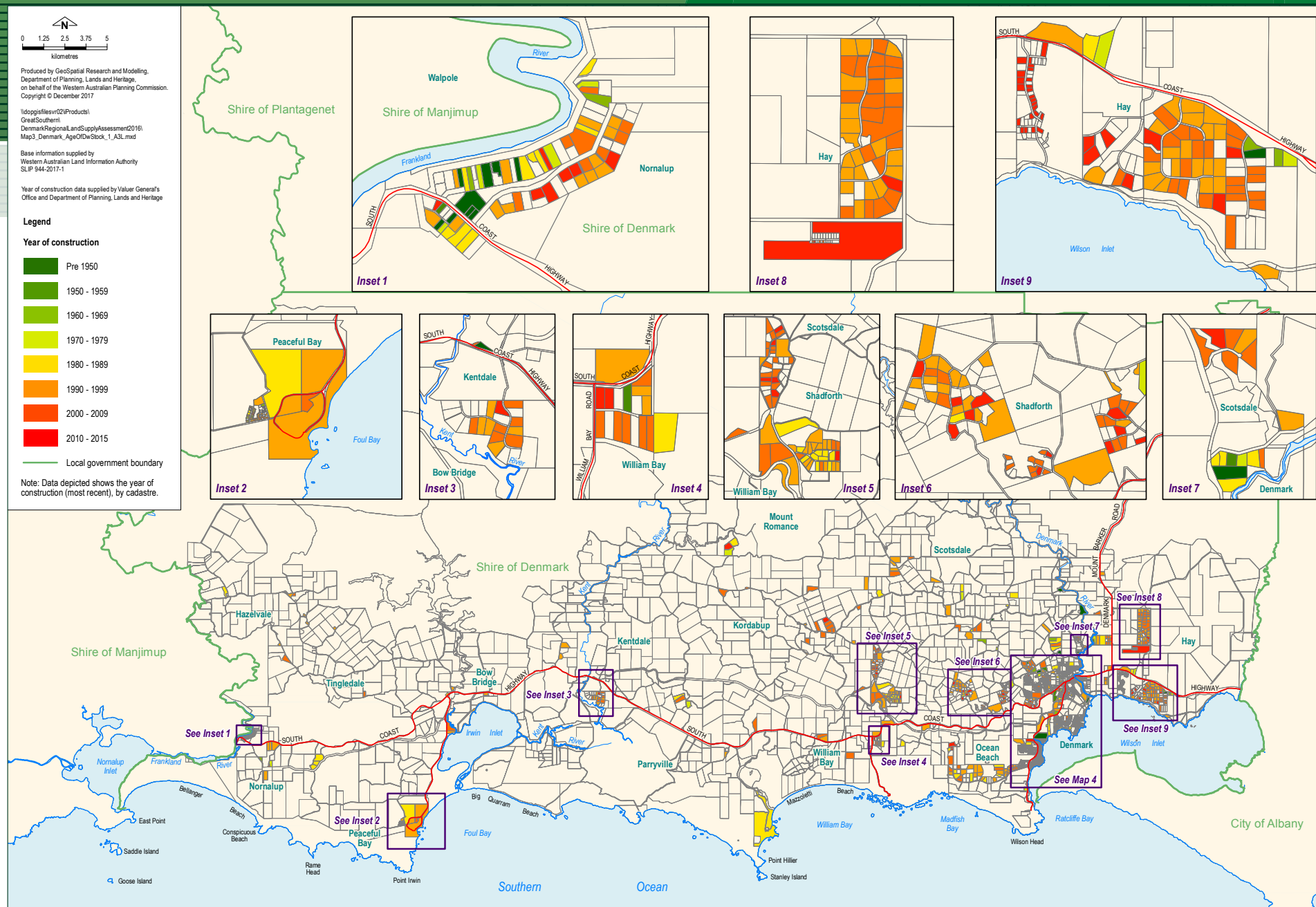
The dwelling stock in the Shire is generally quite 'new' with 61 per cent of homes constructed since 1990 (Figure 6). Maps 3 and 4, which show the distribution of dwellings by year of construction, indicate that most of the older dwelling stocks are located in close proximity to the Denmark town centre, as well as in Nornalup. Many of the newer dwelling stocks are located on land zoned special residential and land zoned for rural living purposes.

At the 2016 Census, the majority of dwellings in the Shire were detached houses (95 per cent, compared to 79.1 per cent for Western Australia) with three-bedroom dwellings the most common.

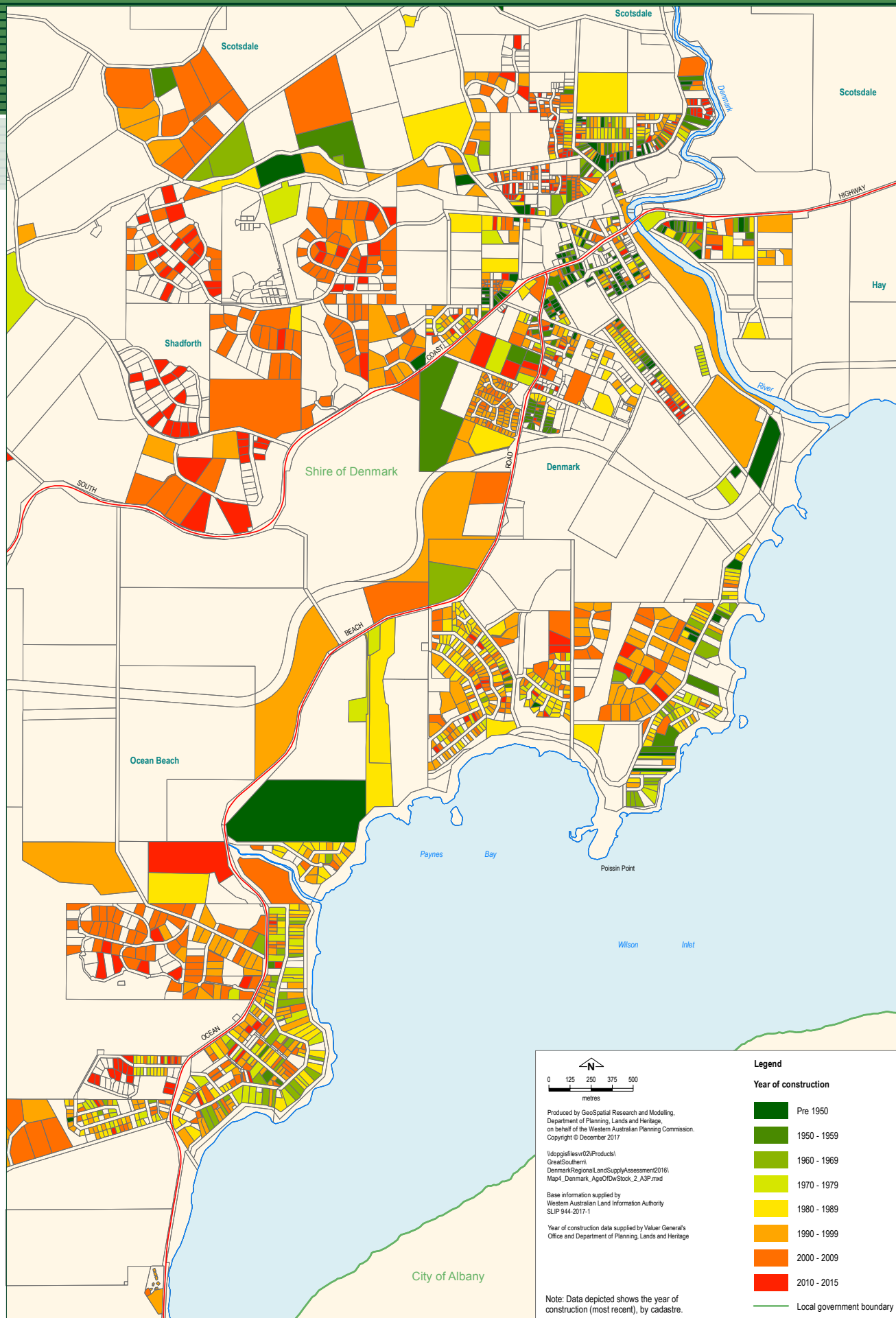
Figure 6: Age of dwelling stock - Shire of Denmark



Source: Department of Planning, Lands and Heritage (2017) *Integrated Regional Information System*



Map 3: Age of Dwelling Stock - 1 of 2



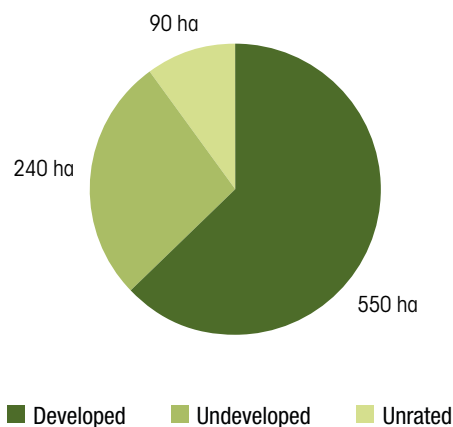
Map 4: Age of Dwelling Stock - 2 of 2

5.2 Land zoned for residential purposes

There are several land use zones under the Shire of Denmark Town Planning Scheme No. 3 that permit residential development (rural living is discussed in a later section). Residential land use zones included in this analysis are 'Residential' and 'Special Residential'.

Using the Integrated Regional Information System (IRIS) land supply model, major residential land use zones are grouped together to provide a snapshot of existing residential land stocks. The model showed that, as at December 2016, approximately 880 hectares of land in the Shire of Denmark was zoned for residential purposes. Approximately 550 hectares (62 per cent) of this stock was considered to be developed. A further 240 hectares (27 per cent) and 90 hectares (11 per cent) were considered to be undeveloped and unrated respectively (Figure 7). Lots identified as unrated are those that are zoned for development for the purpose of the specified primary land use category for which no vacant land or premises valuation information has been captured in Landgate's property valuation database. Almost all stocks of land zoned for residential purposes within the Shire are located in the localities of Denmark, Hay, Ocean Beach and Shadforth, as well as small areas in Peaceful Bay and Nornalup.

Figure 7: Stock of land zoned for residential purposes - Shire of Denmark



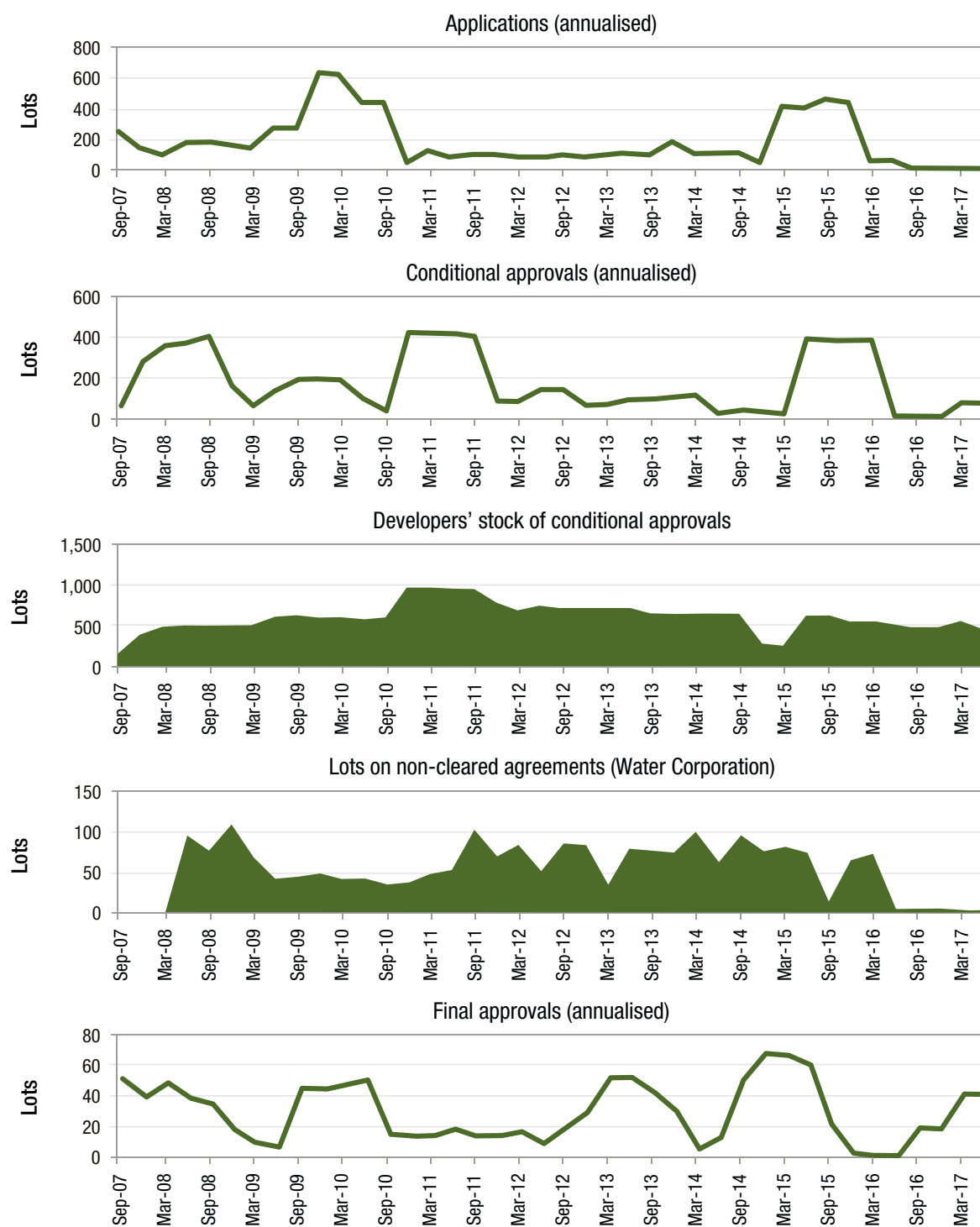
Source: Department of Planning, Lands and Heritage (2017) *Integrated Regional Information System*

5.3 Lot supply pipeline

Over the decade to June 2017, applications were lodged to create a total of 1,771 residential lots (average of 44 lots per quarter). Peak subdivision activity occurred in the 2009/10 and 2014/15 periods, with over 100 lots per quarter lodged for subdivision approvals. The high number of lots lodged for subdivision approval in 2009 (645 lots) led to a decade-high record of 980 lots with conditional approval at December 2010. At the end of the June 2017 quarter, there were 465 lots with conditional approval.

The graph in Figure 8, titled 'lots on non-cleared agreements' shows the stock of conditionally approved lots for which a service provision agreement has been signed by the developer and the Water Corporation. This indicator provides a measure of the number of lots which are likely to be developed in the short term. At the end of the June 2017 quarter, agreements were in place to service just two residential lots in the Shire.

Figure 8: Residential subdivision activity and lot supply pipeline



Source: Western Australian Planning Commission (2017) *State Lot Activity and Water Corporation* (2017).

Note: No data is available on lots on non-cleared agreements prior to 2008.

5.4 Dwelling approvals

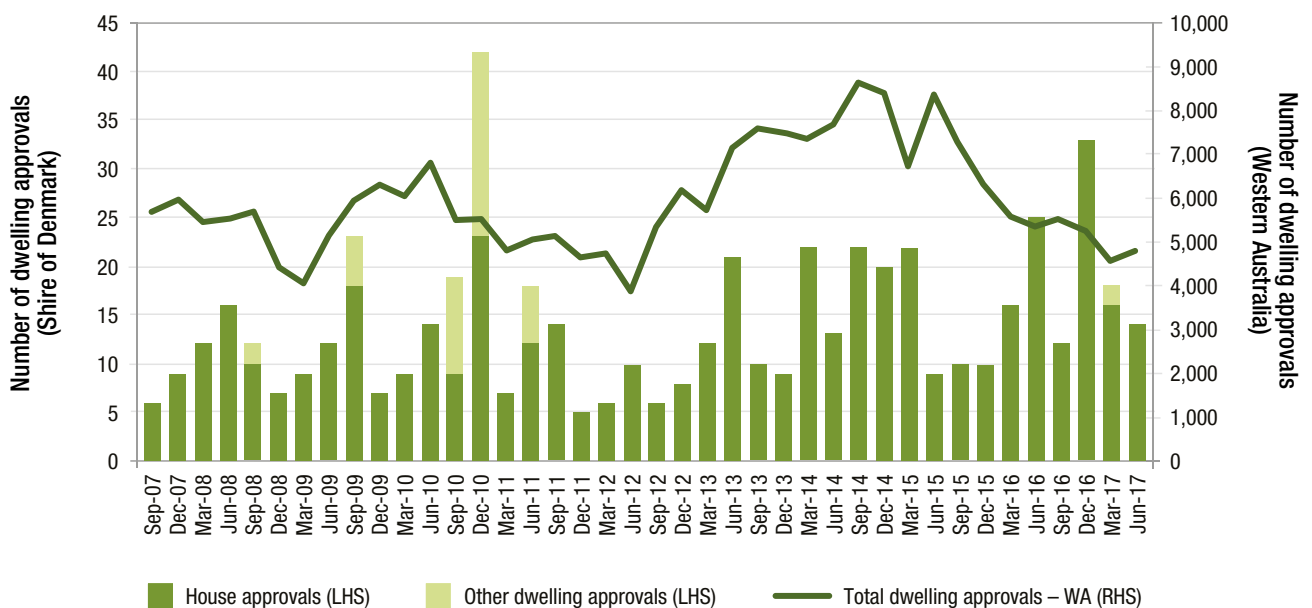
Dwelling approvals are a key demand indicator, representing either owner-occupier demand or investor confidence. As most dwelling approvals proceed to construction and eventually completion, they also provide a leading indicator of dwelling supply.

Over the decade to December 2016, the year 2016 recorded the highest number of dwelling approvals in the Shire of Denmark, with 86 houses approved for construction during this period. This is relatively high when compared to the annual average of 52 house approvals (Figure 9).

The total number of 'other' dwellings (see glossary for definition) approved for construction in the Shire was 47 for the decade to December 2016. The majority of these were granted approval in the September 2010 and December 2010 quarters (29 dwelling units approved).

Map 5 shows the distribution of dwelling approvals in the Shire for 2014/15, based on the most recent ABS SA1 data. The eastern-most part of Shadforth recorded the highest number of dwelling approvals during this time, followed by an area to the north of the Denmark town centre and the locality of Hay.

Figure 9: Dwelling approvals – Shire of Denmark



Source: Australian Bureau of Statistics (2017) 8731.0 Building Approvals, Australia



Map 5: Dwelling approvals 2014/15 (SA1)

5.5 Development outlook

Table 3 and Maps 6, 7 and 8 show possible development projects in the Shire of Denmark. Projects are included where intent has been demonstrated (by government or the development industry) to develop the site at some point in the future. Projects are identified through a variety of means including:

- local planning scheme zonings and amendments
- developer intentions
- consultation with local stakeholders
- subdivision applications/approvals
- local government development applications/approvals; and
- structure planning.

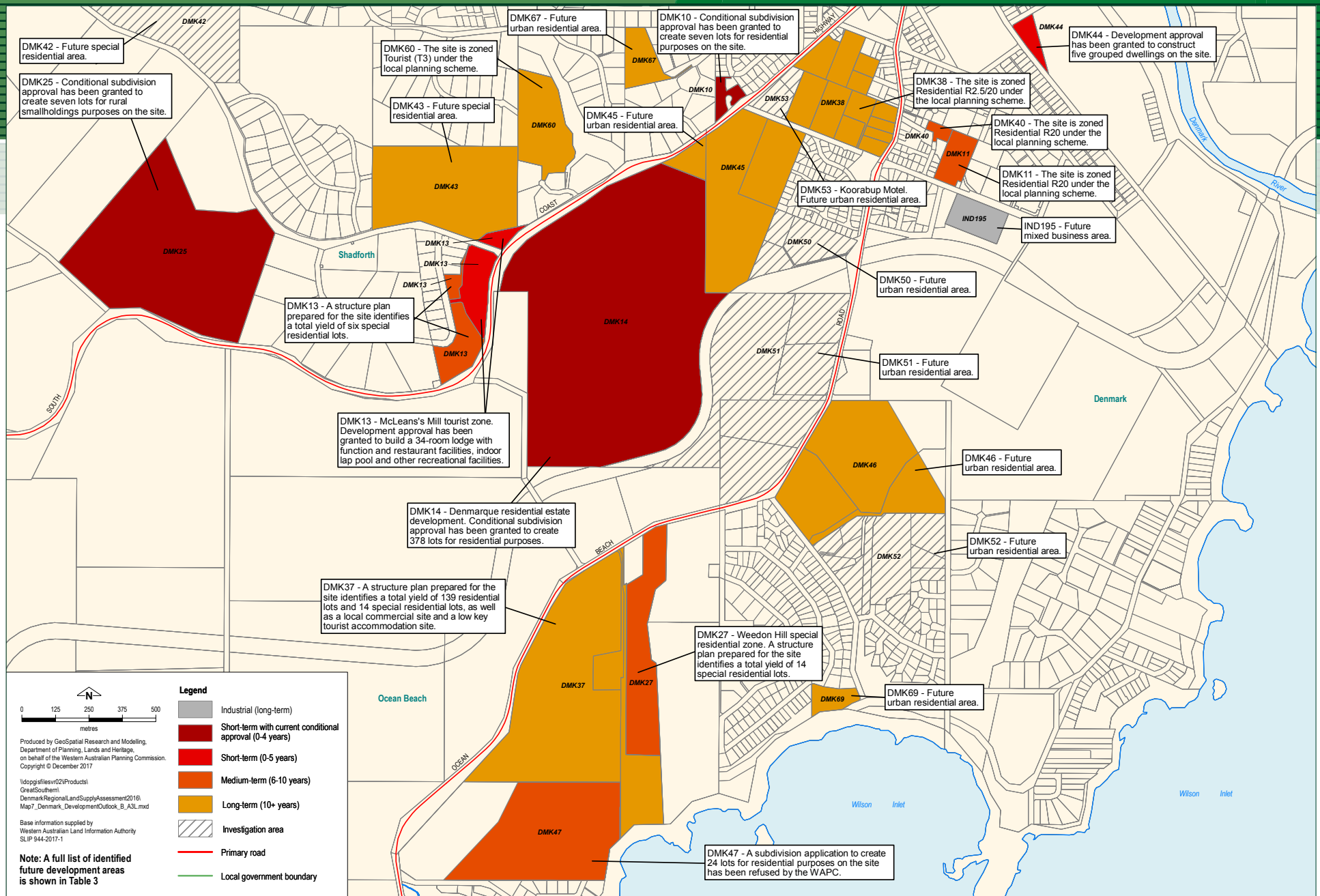
The Shire of Denmark Local Planning Strategy identifies areas for residential expansion in and around the Denmark townsite. The locality of Denmark accounts for 62 per cent of the entire stock of proposed dwellings in identified areas (Table 2), while the adjacent localities of Hay, Ocean Beach, Scotsdale and Shadforth account for a further 38 per cent. Approximately 87 per cent of the

dwelling yield anticipated for release in the short term is located in the localities of Denmark and Shadforth. The majority of growth in the medium to long term is expected to occur in Denmark and Ocean Beach. Peaceful Bay, Nornalup and Bow Bridge have been identified as long-term settlement investigation areas as set out by the Local Planning Strategy.

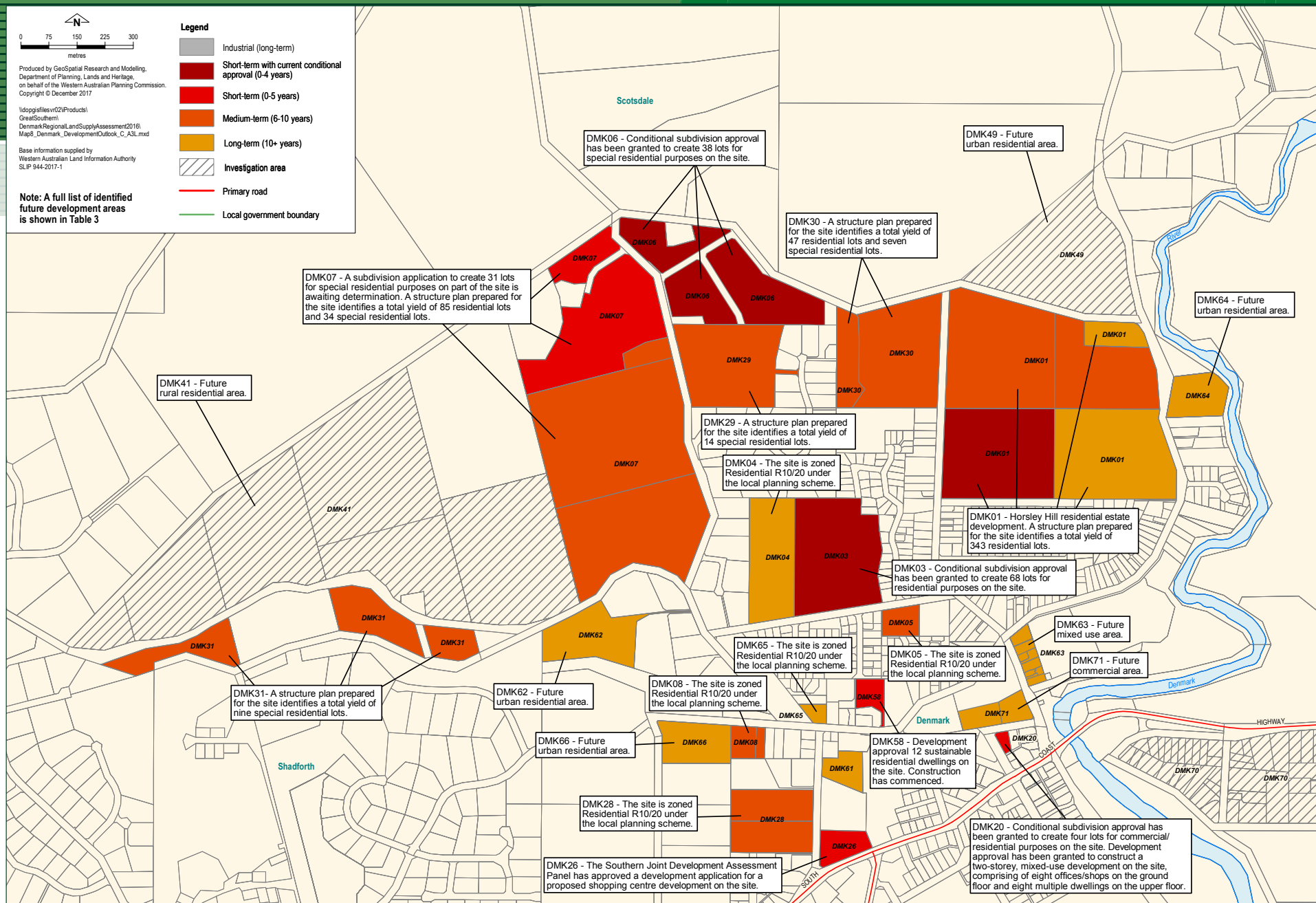
Table 2: Estimated dwelling yield from identified future development areas - Shire of Denmark

Locality	Short-term (0-5 years)	Medium-term (6-10 years)	Long-term (10+ years)	Total
Bow Bridge	0	0	0	0
Denmark	248	411	517	1,176
Hay	86	6	0	92
Nornalup	0	0	0	0
Ocean Beach	0	23	149	172
Peaceful Bay	0	0	0	0
Scotsdale	6	0	31	37
Shadforth	389	16	8	413
Total	729	456	705	1,890

Source: Department of Planning, Lands and Heritage (2017)



Map 7: Development outlook (staging) B



Map 8: Development outlook (staging) C

Table 3: Development outlook - project summaries

Identifier	Location	Locality	Map number in this document	Existing tenure ¹	Purpose	Zoning/planning			Area/yield ²			Subdivision approvals ³		Anticipated dwelling release ⁴ (commencing late 2017)			Constraints ⁵			Comments
						Current zoning	Amendment required	Other planning under way	Area (ha)	Yield (lots)	Yield (units)	Approvals pending	Current approvals	Short-term (0-5 years)	Medium-term (6-10 years)	Long-term (10+ years)	Concern but resolution anticipated	Critical but resolution anticipated	Critical and resolution not definite	
DMK01	Lots 366 and 372 Horsley Road; Lots 50, 51 and 365 Scotsdale Road	Denmark	Map 8	Suburbia Investments Pty Ltd, Melvista Park Pty Ltd, M A Connors, R T D'Castro and G M Dimmock	Residential	Residential, Rural	Yes	Horsley Road and Rockford Road Local Structure Plan	29.1	343	343	0	80	80	178	85	E, MC, Z			The site is comprised of five lots; one is zoned Residential R20, two are zoned Residential, and two are zoned Rural under the Shire of Denmark Town Planning Scheme No. 3 (TPS 3). A structure plan prepared for the site identifies a total yield of 343 residential lots. Of these, 47 will be developed at a density of R30, with the remainder of lots to be developed at a density of R20. Conditional subdivision approval has been granted to create 80 lots for residential purposes on Lot 366 Horsley Road, which is zoned Residential R20. Lots 50 and 365 Scotsdale Road are currently zoned Rural and will require a local planning scheme amendment prior to development.
DMK03	Lot 2 Smith Street	Denmark	Map 8	Jamber Holdings Pty Ltd	Residential	Residential	No	N/A	6.6	68	68	0	68	68	0	0	P, TG			The site is comprised of a lot zoned Residential R20 under TPS 3. Conditional subdivision approval has been granted to create 68 lots for residential purposes.
DMK04	Lot 358 Smith Street	Denmark	Map 8	R H Ludwig and C J Martin	Residential	Residential	No	N/A	4.0	40	40	0	0	0	0	40	MC, P, TG			The site is comprised of an undeveloped lot zoned R10/20 under TPS 3.
DMK05	Lot 3000 Smith Street	Denmark	Map 8	P Han, A C Ng and Tigon Pty Ltd	Residential	Residential	No	N/A	0.8	10	10	0	0	0	10	0	MC, P			The site is comprised of a lot zoned Residential R10/20 under TPS 3. Conditional subdivision approval was granted to create 10 survey strata lots for residential purposes and one lot for common property; however, the approval was not progressed.
DMK06	Lot 999 McLean Road	Denmark	Map 8	Triple Nine Investments Pty Ltd	Special Residential	Special Residential	No	Lot 999 Kearsley/McLean Roads, Denmark - Structure Plan	7.7	38	38	0	38	38	0	0	E, MC, W			The site is comprised of a lot zoned Special Residential under TPS 3. Conditional subdivision approval has been granted to create 38 lots for special residential purposes.
DMK07	Lots 349 and 9000 Kearsley Road; Lot 350 Mount Shadforth Road	Denmark	Map 8	Sun Land Pty Ltd, P J Robertson, N R Plowman and S E Plowman	Residential, Special Residential	Residential, Special Residential	No	Lots 348, 349 and 350 McLean, Kearsley and Mount Shadforth Roads - Structure Plan	30.2	117	117	30	0	30	87	0	E, MC	S		The site is comprised of three lots zoned Special Residential and Residential R10 under TPS 3. A subdivision application to create 30 lots for special residential purposes on Lot 9000 Kearsley Road is awaiting determination. A structure plan prepared for the site identifies a total yield of 34 special residential lots and 85 residential R10 lots.
DMK08	Lots 24 and 54 Peace Street	Denmark	Map 8	M P Gleeson, R G Gleeson, G R Greenhalgh and M K Greenhalgh	Residential	Residential	No	N/A	0.8	12	12	0	0	0	0	12	L, MC, P			The site is comprised of two lots zoned Residential R10/20 under TPS 3.
DMK10	Lot 9000 South Coast Highway	Denmark	Map 7	R B Ross	Residential	Residential	No	N/A	1.0	7	7	0	7	7	0	0				The site is comprised of a lot zoned Residential R10 under TPS 3. Conditional subdivision approval has been granted to create seven lots for residential purposes.
DMK11	Lot 672 Zimmermann Street	Denmark	Map 7	E W Franklin	Residential	Residential	No	N/A	2.0	16	16	0	0	0	16	0	MC, P			The site is comprised of a lot zoned Residential R20 under TPS 3. Conditional subdivision approval was granted to create 16 lots for residential purposes however the approval was not progressed.
DMK13	Lot 9001 Cussons Road	Shadforth	Map 7	B D Gater, D J Gater, S F Gater and J P Nuttall	Special Residential, Tourist	Special Residential, Tourist	No	Lot 5 Cussons Road, Denmark - Structure Plan	7.2	6 special residential, 1 tourist	6 special residential, 1 tourist	0	0	0	6	0	E, P	MC		The site is comprised of a lot zoned Special Residential and Tourist under TPS 3. The part of lot zoned Special Residential is an undeveloped portion of a structure plan area, which identifies a total yield of six special residential lots. For the part of lot zoned Tourist, development approval has been granted to build a 34 room lodge with function and restaurant facilities, indoor lap pool and other recreational facilities.
DMK14	Lot 5 South Coast Highway	Shadforth	Map 7	Lowe Pty Ltd and J C Williams	Residential	Residential	No	Lot 5 South Coast Highway, Denmark - Structure Plan	67.2	378	378	0	378	378	0	0	MC, W	S		The site is comprised of a lot zoned Residential R20 under TPS 3. Conditional subdivision approval has been granted to create 378 lots for residential purposes. Consideration is being given to the construction of a private water pump station to service the site.
DMK16	Lots 1, 2, 83 and 85 Mount Shadforth Road	Shadforth	Map 6	Bennett Range Pty Ltd, James Ricketts Pty Ltd, B J Fleming, M H Fleming and T J Anderson	Tourist	Tourist	No	Shire of Denmark Town Planning Scheme Policy No. 46: Karri Mia Tourist Zone Design Guidelines	15.2	17	65	0	17	-	-	-	MC	P		The Karri Mia Tourist Zone has been partially developed with the Chimes spa retreat, restaurant and function centre, caravan park, reception/manager's accommodation and 15 holiday chalets. Conditional subdivision approval has been granted to create 26 survey strata lots for residential/tourist purposes and five common property lots. Nine survey strata lots have been created. TPS 3 and the Shire of Denmark Town Planning Scheme No. 46: Karri Mia Tourist Zone Design Guidelines set out conditions for development of the site.
DMK18	Lot 55 Ocean Beach Road	Ocean Beach	Map 6	C T Ciantar and G E Ciantar	Residential, Commercial	Residential, Commercial	No	N/A	1.2	4 residential	4 residential	0	0	0	4	0	MC, P, TG			The site is comprised of two parts of a lot zoned Residential R5 and Commercial under TPS 3. A subdivision application was lodged in 2008 to create four lots for residential purposes and one lot for commercial purposes however the application was refused.

Table 3: Development outlook - project summaries

Identifier	Location	Locality	Map number in this document	Existing tenure ¹	Purpose	Zoning/planning			Area/yield ²			Subdivision approvals ³		Anticipated dwelling release ⁴ (commencing late 2017)			Constraints ⁵			Comments
						Current zoning	Amendment required	Other planning under way	Area (ha)	Yield (lots)	Yield (units)	Approvals pending	Current approvals	Short-term (0-5 years)	Medium-term (6-10 years)	Long-term (10+ years)	Concern but resolution anticipated	Critical but resolution anticipated	Critical and resolution not definite	
DMK19	Lot 9003 South Coast Highway	Hay	Map 6, Inset 1	LWP Denmark Pty Ltd	Special Residential, Tourist	Special Residential, Tourist	No	Location 1935 South Coast Highway - Structure Plan	55.3	102 special residential	102 special residential	0	86	86	6	0	MC, P	S		The site is comprised of a lot zoned Special Residential and Tourist under TPS 3. Conditional subdivision approval has been granted to create 86 lots for special residential purposes. An additional six special residential lots are expected to be released in the medium term. For a portion of the site located west of Beaufortia Gardens (zoned Tourist T9), permitted uses include single house, cottage industry, caretakers dwellings, holiday accommodation, reception centre, restaurant and a shop (maximum 150 square metres GLA). A maximum of 3.3 holiday units per hectare is provided for within TPS 3. A portion of the site located to the east of public open space is zoned Special Residential with additional uses (A21) permitted. They include holiday accommodation, private recreation and cottage industry.
DMK20	Lot 200 Strickland Street	Denmark	Map 8	Frenesi Pty Ltd, Nostrebor Holdings Pty Ltd and S J Robertson	Commercial, Residential	Commercial, Residential	No	N/A	0.2	4	16	0	4	8	0	0	MC			The site is comprised of a lot zoned Commercial with an R-Code of R25 under TPS 3. Conditional subdivision approval has been granted to create four freehold lots. Development approval has been granted to construct a two storey mixed use development, comprising of eight offices/shops on the ground floor and eight multiple dwellings on the upper floor.
DMK21	Lot 101 Mount Leay Road	Scotsdale	Map 6	L J Low and K D Sfredde	Rural Smallholdings	Landscape Protection	No	Lots 101 and 103 Howe Road, Scotsdale - Structure Plan	25.6	20	20	0	0	0	0	20	MC, P			The site is comprised of a lot zoned Landscape Protection under TPS 3. Conditional subdivision approval was granted in 2011 to create 20 survey strata lots for rural living purposes; however, the approval was not progressed.
DMK24	Lot 23 East River Road	Scotsdale	Map 6	A A Wilson	Rural Residential	Special Rural	No	East River Special Rural Zone No. 12 - Structure Plan	19.0	6	6	0	6	6	0	0				The site is comprised of a lot zoned Special Rural under TPS 3. Conditional subdivision approval has been granted to create six lots for rural residential purposes.
DMK25	Lot 402 Myers Road	Shadforth	Map 7	Hillboi Nominees Pty Ltd	Rural Smallholdings	Special Rural	No	Lot 402 Myers Road, Shadforth - Subdivision Guide Plan	32.4	7	7	0	7	7	0	0	E			The site is comprised of a lot zoned Special Rural under TPS 3. Conditional subdivision approval has been granted to create seven lots for rural smallholdings purposes.
DMK26	Lot 50 South Coast Highway	Denmark	Map 8	Metcash Food and Grocery Pty Ltd	Shopping Centre	Commercial	No	N/A	1.0	0	4	0	0	-	-	-	MC, P			The site is comprised of a lot zoned Commercial under TPS 3. An application for a proposed shopping centre development was approved by the Southern Joint Development Assessment Panel (Southern JDAP) in June 2014. An amended approval has since been issued by the Shire of Denmark.
DMK27	Lot 212 Ocean Beach Road	Denmark	Map 7	SWP Investments Pty Ltd	Special Residential	Special Residential	No	Weedon Hill Special Residential Zone - Lot 4 Ocean Beach Road, Denmark - Structure Plan	8.8	14	14	0	0	0	14	0	MC, P	S		The site is comprised of a lot zoned Special Residential under TPS 3. A structure plan prepared for the site identifies a total yield of 14 special residential lots.
DMK28	Lots 303 and 304 Hardy Street	Denmark	Map 8	J A Anderson and B C Malone	Residential	Residential	No	N/A	3.7	20	20	0	0	0	24	0	E, MC			The site is comprised of two lots zoned Residential R10/20 under TPS 3.
DMK29	Lot 9000 Wishart Place	Denmark	Map 8	Brocklebank Pty Ltd	Special Residential	Special Residential	No	Lot 369 Kearsley Road and Wishart Place - Structure Plan	5.7	14	14	0	0	0	14	0	E, MC, P			The site is comprised of a lot zoned Special Residential under TPS 3. A structure plan prepared for the site identifies a yield of 24 special residential lots, 10 of which have already been created. The remaining 14 lots are likely to be released sometime in the medium term, depending on market conditions.
DMK30	Lot 371 Horsley Road	Denmark	Map 8	G Bayley and J Bayley	Residential, Special Residential	Residential, Special Residential	No	Lot 371 Horsley Road, Denmark - Structure Plan	7.6	54	54	0	0	0	54	0	MC			The site is comprised of a lot zoned Residential R12.5 and Special Residential under TPS 3. A structure plan prepared for the site identifies a yield of 54 residential and special residential lots.
DMK31	Lots 22 and 632 Mount Shadforth Road	Denmark	Map 8	D J Warne and S J Young	Special Residential	Special Residential	No	Lots 1, 22, Part Lot 355 and Lot 632 Mount Shadforth Road, Denmark - Structure Plan	5.5	9	9	0	0	0	9	0	E, L, MC			The site is comprised of two lots zoned Special Residential under TPS 3. A structure plan prepared for the site identifies a total yield of nine new special residential lots with a minimum area of 5,000 square metres. Development of one of the proposed lots is conditional upon the closure of an existing road reserve which bisects existing Lot 22.
DMK32	Lot 550 South Coast Highway	Shadforth	Map 6	J E Buck, J M Buck, N R Buck, N G Buck and T C Buck	Rural Residential, Tourist	Landscape Protection, Tourist	No	Lot 550 South Coast Highway, Shadforth - Structure Plan	39.9	10 rural residential	10 rural residential, 4 tourist	0	0	0	10	0	E, MC, P			The site is comprised of a lot zoned Landscape Protection and Tourist (T5) under TPS 3. A structure plan prepared for the site identifies a total yield of 10 development areas/strata retreat lots for the part of lot zoned Landscape Protection. For the part of lot zoned Tourist, TPS 3 permits the following uses: cottage industry (gallery and workshop), caretakers' accommodation, private recreation, rural pursuit and holiday accommodation (maximum of four chalets).

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Identifier	Location	Locality	Map number in this document	Existing tenure ¹	Purpose	Zoning/planning			Area/yield ²			Subdivision approvals ³		Anticipated dwelling release ⁴ (commencing late 2017)			Constraints ⁵			Comments
						Current zoning	Amendment required	Other planning under way	Area (ha)	Yield (lots)	Yield (units)	Approvals pending	Current approvals	Short-term (0-5 years)	Medium-term (6-10 years)	Long-term (10+ years)	Concern but resolution anticipated	Critical but resolution anticipated	Critical and resolution not definite	
DMK33	Lots 301 and 1425 Ficifolia Road, Lot 32 Peppermint Way	Peaceful Bay	Map 6	P E Opitz, B Crabb, P A Rogerson and B R Marris	Long term settlement investigation area	Rural, Residential	Yes	Peaceful Bay Local Structure Plan	244.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A			D, E, H, MC, P, PW, S, W, Z	The site is comprised of three lots in the locality of Peaceful Bay, two of which are zoned Rural, and one of which is zoned Residential R5 under TPS 3. The Shire of Denmark Local Planning Strategy (LPS) 2011 identifies the site as a long term settlement investigation area.
DMK34	Lot 721 McLeod Road	Shadforth	Map 6	J Ridley and G A Thompson	Rural Residential	Rural	Yes	N/A	12.1	6	6	0	0	0	0	6	E, MC, P, Z			The site is comprised of a lot zoned Rural under TPS 3. The LPS identifies the site as future rural residential. <i>State Planning Policy 2.5 Rural Planning</i> defines rural residential as a land use zone with land parcels from one to four hectares in size. Based on an average lot size of two to four hectares, the site might yield approximately three to six lots.
DMK35	Numerous lots	Bow Bridge	Map 6	Numerous landowners	Long term settlement investigation area	Rural	Yes	Bow Bridge Structure Plan	739.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A			D, E, L, MC, P, PW, S, W, Z	The site is comprised of numerous lots in the locality of Bow Bridge, almost all of which are zoned Rural under TPS 3. The LPS identifies the site as a future long term settlement investigation area.
DMK36	Numerous lots	Nornalup	Map 6	Numerous landowners	Long term settlement investigation area	Rural	Yes	Local planning scheme amendment initiated for Lot 150 South Coast Highway	633.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A			D, E, H, L, MC, P, PW, S, W, Z	The site is comprised of numerous lots in the locality of Nornalup, most of which are zoned Rural under TPS 3. The site incorporates the Nornalup townsite, where the majority of lots are zoned Residential R5. The LPS identifies Nornalup as a future long-term growth settlement area, which will in time see future development and expansion subject to servicing and infrastructure capacity being increased. A local planning scheme amendment to rezone Lot 150 South Coast Highway from Rural to Residential R5 has been initiated.
DMK37	Lots 213, 214 and 215 Ocean Beach Road	Ocean Beach	Map 7	SWP Investments Pty Ltd	Residential	Residential	No	Weedon Hill Outline Development Plan	31.1	149	149	0	0	0	0	149	MC, P		S	The site is comprised of two lots zoned Residential R20 and one lot zoned Residential R10 under TPS 3. A structure plan prepared for the site identifies a total yield of 139 residential lots and 14 special residential lots, as well as a local commercial site and a low key tourist accommodation site. The site is located in close proximity to Wilson Inlet, which has been categorised as a sewage sensitive area under the draft Government Sewerage Policy (2016). The draft policy proposes to severely limit unsewered subdivision of lots less than one hectare in sewage sensitive areas. Preliminary planning for the Denmark Wastewater Scheme indicates the requirement for a permanent pumping station, which is proposed to be located in close proximity to Little River.
DMK38	Numerous lots	Denmark	Map 7	Numerous landowners	Residential	Residential	No	Draft Ocean Beach Road Conceptual Structure Plan	11.8	174	174	0	0	0	0	174	E, D, L, MC, P			The site is comprised of a number of lots zoned R2.5/20 under TPS 3.
DMK39	Lot 955 McLeod Road	Shadforth	Map 6	J M Axe and D W Head	Tourist	Rural	No	N/A	13.6	0	4	0	0	-	-	-	E, M	P, Z		The site is comprised of a lot zoned Rural (A8) under TPS 3. TPS 3 permits holiday accommodation as an additional use, with a maximum of four chalets allowed in the south east corner of the property.
DMK40	Lot 9003 Honey myrtle Circuit	Denmark	Map 7	P A M Crosswell and T J Crosswell	Residential	Residential	No	N/A	0.5	5	5	0	0	0	5	0	MC			The site is comprised of a lot zoned Residential R20 under TPS 3. It is the balance lot of a previous subdivision which sought to develop 21 lots, 16 of which have been created. Conditional subdivision approval lapsed in June 2016. The lot was recently sold in July 2017.
DMK41	Lots 24, 353, 356 and 631 McLean Road; Lots 21 and 351 Mount Shadforth Road	Denmark	Map 8	Numerous landowners	Rural Residential	Rural	Yes	N/A	43.7	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E, P, Z			The site is comprised of six lots zoned Rural under TPS 3. The LPS identifies the site as future rural residential.
DMK42	Lot 301 Cussons Road	Shadforth	Map 7	R N Cussons	Special Residential	Rural	Yes	West Denmark Structure Plan	32.6	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E, P, TG, Z	N/A	N/A	The site is comprised of a lot zoned Rural under TPS 3. The LPS identifies the site as future special residential.
DMK43	Lot 338 Cussons Road	Shadforth	Map 7	G Kurilowski and M A Kurilowski	Special Residential	Rural	Yes	West Denmark Structure Plan	16.9	8	8	0	0	0	0	8	E, MC, P, Z	S, W		The site is comprised of a lot zoned Rural under TPS 3. The LPS identifies the site as future special residential. The West Denmark Structure Plan identifies a total yield of eight lots with an average area of 1.1 hectares.
DMK44	Lot 943 Barnett Street	Denmark	Map 7	Australian Pensioners League WA Division Inc	Aged or dependent persons dwellings	Parks and recreation	Yes	N/A	1.0	0	5	0	0	0	5	0	E, Z			The site is comprised of a lot zoned Parks and Recreation under TPS 3. Development approval was granted to construct five grouped dwellings however the approval lapsed in 2017.
DMK45	Lots 1 and 617 South Coast Highway; Lot 621 Harlequin Street	Denmark	Map 7	D A Francesconi, J M Mitchard, Dimbwe Pty Ltd and Turner and Wells Pty Ltd	Residential	Rural	Yes	N/A	18.2	140	140	0	0	0	0	140	D, S	P, Z		The site is comprised of three lots zoned Rural under TPS 3. The LPS identifies the site as future urban residential.

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						Current zoning	Amendment required	Other planning under way	Area (ha)	Yield (lots)	Yield (units)	Approvals pending	Current approvals	Short-term (0-5 years)	Medium-term (6-10 years)	Long-term (10+ years)	Concern but resolution anticipated	Critical but resolution anticipated	Critical and resolution not definite	
DMK46	Lots 14 and 15 Campbell Road; Lot 56 Ocean Beach Road	Denmark	Map 7	A T Evans, F Evans and A W Gibb	Residential	Rural	Yes	N/A	24.7	20	20	0	0	0	0	20	S, W	P, Z		The site is comprised of three lots zoned Rural under TPS 3. The LPS identifies the site as future urban residential.
DMK47	Part Lot 32 Ridley Place	Ocean Beach	Map 7	P H Faulkner, G E Hatcher, J K Sheed and M P Thornton	Residential	Residential	No	N/A	17.8	19	19	0	0	0	19	0	MC		E, S	The site is comprised of a part of lot zoned Residential R2 under TPS 3. A subdivision application to create 24 lots for residential purposes was refused by the WAPC in March 2015.
DMK48	Lot 300 South Coast Highway	Scotsdale	Map 6, Inset 1	Shire of Denmark	Service Commercial	Public Use	Yes	N/A	6.0	0	0	0	0	-	-	-	P, Z			The site is comprised of a lot zoned Public Use under TPS 3. The LPS envisages that development of the site will comprise of service and rural related businesses that require large areas for the delivery, handling, display and/or storage of products.
DMK49	Part Lot 374 Scotsdale Road	Scotsdale	Map 8	Demandem Holdings Pty Ltd and Glenlea Enterprises Pty Ltd	Residential	Rural	Yes	N/A	9.3	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E, MC, P, Z			The site is comprised of a part of lot zoned Rural under TPS 3. The LPS identifies the site as future urban residential.
DMK50	Lots 11, 12 and 13 Ocean Beach Road	Denmark	Map 7	A R Murch, M S Cussons, E D Jack, R J Halbert, D J Laurie and L J Laurie	Residential	Residential	No	N/A	5.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	The site is comprised of three lots zoned Residential R2 under TPS 3. The LPS identifies the site as future urban residential.
DMK51	Lots 3, 4, 5, 301 and 302 Ocean Beach Road	Shadforth	Map 7	H M Johnson, K Johnson, C M Morrison, L R Pierce, P K Sherwood, C M E Wynne and G W Wynne	Residential	Rural	Yes	N/A	30.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A		S		The site is comprised of a number of lots zoned Rural under TPS 3. The LPS identifies the site as future urban residential.
DMK52	Lots 5, 6 and 7 Anning Road; Lots 2, 11, 12, 13, 7755 and 7756 Campbell Road; Lot 4 Glover Street; Lots 8 and 9 Tree Frog Lane	Denmark	Map 7	Numerous landowners	Residential	Residential	No	N/A	13.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	L, S			The site is comprised of a number of lots zoned Residential R2 under TPS 3. The LPS identifies the site as future urban residential.
DMK53	Lots 20 and 21 South Coast Highway	Denmark	Map 7	M S Farr, J A Farr, R H L Koch and C J Martin	Residential	Tourist	Yes	N/A	1.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	The site is comprised of two lots zoned Tourist under TPS 3. The LPS identifies the site as future urban residential and is the site of the existing Koorabup Motel.
DMK54	Lot 3 South Coast Highway	Shadforth	Map 6	G M Cockman, R A Cockman, C J Wright and E A Wright	Rural Smallholdings	Special Rural	No	Lot 3 South Coast Highway, Shadforth - Structure Plan	20.2	4	4	0	4	4	0	0	E			The site is comprised of a lot zoned Special Rural under TPS 3. Conditional subdivision approval has been granted to create four lots for rural smallholdings purposes.
DMK55	Lots 2, 5 and 6 East River Road	Scotsdale	Map 6	J A Harman, R N Harman, S N Stewart and R A Wilson	Rural Residential	Rural	Yes	N/A	22.5	11	11	0	0	0	0	11	E, L, MC, P, S, Z			The site is comprised of three lots zoned Rural under TPS 3. The LPS identifies the site as future rural residential.
DMK56	Lot 1 Ocean Beach Road	Ocean Beach	Map 6	S W Allen	Tourist	Rural	Yes	Local planning scheme amendment advertised	5.0	0	25	0	0	-	-	-	E, W			The site is comprised of a lot zoned Rural under TPS 3. A local planning scheme amendment to rezone the site to Tourist (T13) to facilitate the development of short stay tourism accommodation and ancillary facilities has been advertised. The development seeks to provide a boarding house (lodge) consisting of 15 rooms (providing 30 beds) and up to 10 chalets while retaining the existing house and cottage. Also proposed is the provision of onsite parking and ancillary facilities to support and complement the proposed short stay accommodation.
DMK57	Lot 1 Valley of the Giants Road	Bow Bridge	Map 6	M P Henderson and R N Henderson	Tourist	Tourist	No	N/A	35.8	0	0	0	0	-	-	-	E			The site is comprised of a lot zoned Tourist (T12) under TPS 3, which provides for the development of a single house, boarding house (lodge), gallery/restaurant, holiday accommodation (chalets), manager's residence and/or a microbrewery.
DMK58	Lot 11 Mount Shadforth Road	Denmark	Map 8	Deco Living Pty Ltd	Residential	Residential	No	N/A	0.6	0	12	0	0	12	0	0				The site is comprised of a lot zoned Residential R10/20 under TPS 3. Construction has commenced to build 12 sustainable residential dwellings, with a projected completion date of November 2017.
DMK60	Lot 21 Mairet Rise	Shadforth	Map 7	A U Koch and C J Martin	Tourist	Tourist	No	N/A	6.3	0	0	0	0	-	-	-	E, T			The site is comprised of a lot zoned Tourist (T3) under TPS 3, which provides for the development of chalets and/or lodge development.

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						Current zoning	Amendment required	Other planning under way	Area (ha)	Yield (lots)	Yield (units)	Approvals pending	Current approvals	Short-term (0-5 years)	Medium-term (6-10 years)	Long-term (10+ years)	Concern but resolution anticipated	Critical but resolution anticipated	Critical and resolution not definite	
DMK61	Lot 3002 Hardy Street	Denmark	Map 8	State of WA	Residential	Residential	No	N/A	0.8	13	13	0	0	0	0	13	E			The site is comprised of a lot zoned Residential R20 under TPS 3. It was previously the site of the Shire of Denmark works depot, prior to the depot's relocation to Zimmermann Street.
DMK62	Lot 1 Mount Shadforth Road	Denmark	Map 8	M L Gooch	Residential	Residential	No	N/A	3.1	0	0	0	0	0	0	0	E, MC, P, S			The site is comprised of a lot zoned Residential R2 under TPS 3. The LPS identifies the site as future urban residential.
DMK63	Lots 1, 2, 3, 4, 132, 136 and 137 Horsley Road; Lot 133 Scotsdale Road	Denmark	Map 8	Numerous landowners	Mixed use	Residential	Yes	N/A	0.8	0	0	0	0	-	-	-	MC, P, Z			The site is comprised of a number of lots zoned Residential R20 under TPS 3. The LPS identifies the site as future mixed use.
DMK64	Lot 648 Scotsdale Road	Denmark	Map 8	M F Armstrong, J M Pepper, J L Pepper, J M Pepper and M E Pepper	Residential	Residential	No	N/A	1.6	10	10	0	0	0	0	10	MC, P, S, TG	E		The site is comprised of a lot zoned Residential R2/10 under TPS 3. The LPS identifies the site as future urban residential.
DMK65	Lot 561 Mount Shadforth Road	Denmark	Map 8	Jeffress Nominees Pty Ltd	Residential	Residential	No	N/A	0.3	0	0	0	0	0	0	0	P, S	E		The site is comprised of a lot zoned Residential R10/20 under TPS 3. The site is bisected by Millars Creek.
DMK66	Lot 683 Peace Street	Denmark	Map 8	D R Shilling and V S Shilling	Residential	Residential	No	N/A	2.0	13	13	0	0	0	0	13	P, S	E		The site is comprised of a lot zoned R2/10 under TPS 3. The LPS identifies the site as future urban residential. The site is fully vegetated.
DMK67	Lot 2 Tysoe Close	Denmark	Map 7	A H Chisholm and D F Chisholm	Residential	Residential	No	N/A	2.6	5	5	0	0	0	0	5	E, P, S			The site is comprised of a lot zoned Residential R2 under TPS 3. The LPS identifies the site as future urban residential.
DMK68	Numerous lots	Denmark	Map 8	Numerous landowners	Residential	Residential	No	N/A	14.5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	E, PW	L, MC, P, S		The site is comprised of numerous lots zoned R5/15 under TPS 3. The LPS identifies the site as urban residential. The site is located in close proximity to Wilson Inlet, which has been categorised as a sewage sensitive area under the draft Government Sewerage Policy. The draft policy proposes to severely limit unsewered subdivision of lots less than one hectare in sewage sensitive areas. Should the existing reticulated sewerage network be expanded to service the area, the site would have significant infill potential, subject to R-Code changes.
DMK69	Lot 101 Campbell Road	Denmark	Map 7	G E Sellar	Residential	Residential	No	N/A	1.4	5	5	0	0	0	0	5			E, S, TG	The site is comprised of a lot zoned Residential R10 under TPS 3. There is an existing dwelling located near the western boundary of the site. The LPS identifies the site as future urban residential.
DMK71	Part Lot 228 Strickland Street and Lot 257 North Street	Denmark	Map 8	Shire of Denmark and FES Ministerial Body	Commercial	Parks and Recreation, Public Use	Yes	N/A	1.2	0	0	0	0	-	-	-	E, H, P, Z			The site is comprised of a part of lot zoned Parks and Recreation, and a lot zoned Public Use under TPS 3. The site falls within the inner core area of the Denmark town centre. The LPS identifies the site as future commercial and identifies commercial and civic uses as the most appropriate for the site.
DMK72	Numerous lots	Ocean Beach	Map 6	Numerous landowners	Residential	Residential	No	N/A	89.8	N/A	N/A	N/A	N/A	N/A	N/A	N/A			S	The site is comprised of numerous lots zoned R2 to R10 under TPS 3. The LPS identifies the site as urban residential. The site is located in close proximity to Wilson Inlet, which has been categorised as a sewage sensitive area under the draft Government Sewerage Policy. The policy proposes to severely limit unsewered subdivision of lots less than one hectare in sewage sensitive areas. Should the existing reticulated sewerage network be expanded to service the area, the site would have significant infill potential, subject to R-Codes.
IND194	Lot 2 South Coast Highway and Lot 556 McIntosh Road	Hay	Map 6, Inset 1	K M Hithersay, R J Hithersay and the Shire of Denmark	Industrial	Rural, Public Use	Yes	N/A	42.0	35	-	0	0	-	-	-		P, Z		The site is comprised of two lots zoned Public Use and Rural under TPS 3. The LPS identifies the site as the location for the planned Denmark Industrial Area.
IND195	Lot 139 Zimmermann Street	Denmark	Map 7	State of WA	Mixed Business	Industrial	Yes	N/A	2.5	0	0	0	0	-	-	-	E			The site is comprised of a lot zoned Industrial under TPS 3. It is located adjacent to the existing Denmark Light Industrial Area. The LPS identifies the site as future mixed business.

1 Organisation or individual/s

2 In some cases the yield for the project is indicative only. Final lot/dwellings yields will be determined by further detailed planning.

3 Refers to the number of lots/units with current subdivision or strata approval, and the number of lots/units for which a subdivision/strata application has been lodged but which is yet to be determined (pending). Does not include local government development approvals.

4 Estimate only. In most cases the precise timing of lot release is uncertain. This could be for reasons such as market conditions, demand/supply of services or a requirement to resolve issues and constraints.

5 Constraints and issues codes: Drainage (D), environmental (E), heritage (H), land assembly (L), market conditions (MC), planning (P), power (Pw), sewer (S), water (W), topography and geology (TG), mining lease (M) and zoning (Z).

5.6 Vacant lots and infill

Data from Landgate's property valuation database shows that there is a substantial stock of vacant lots on land zoned for residential and rural living purposes in the Shire of Denmark. As at December 2016, 490 vacant lots were identified on land zoned for residential and rural living purposes, accounting for 18 per cent of the total stock of existing residential and rural living lots.

Table 4 shows the stock of vacant lots on land zoned for residential and rural living purposes in the Shire. The distribution of vacant lots in the Shire's main settlements is shown on Map 9.

The Department of Planning, Lands and Heritage's Integrated Land Information Database (ILID) compares density outcomes with those set out by the R-Codes under local planning schemes. Using the ILID model, the latent development capacity of residential land stocks can be measured based on existing lot size and R-Code zonings. The spatial distribution of lots with additional dwelling potential is also shown in Map 9. Map 9

shows potential for residential consolidation through subdivision in the Denmark townsite however there is limited potential for residential consolidation through subdivision within Ocean Beach, Peaceful Bay and Nornalup.

Where potential for residential consolidation through subdivision exists within the locality of Denmark, land is zoned between R2.5 to R20 under the Shire of Denmark Town Planning Scheme No. 3. Many of these lots are capable of being subdivided into five or more lots.

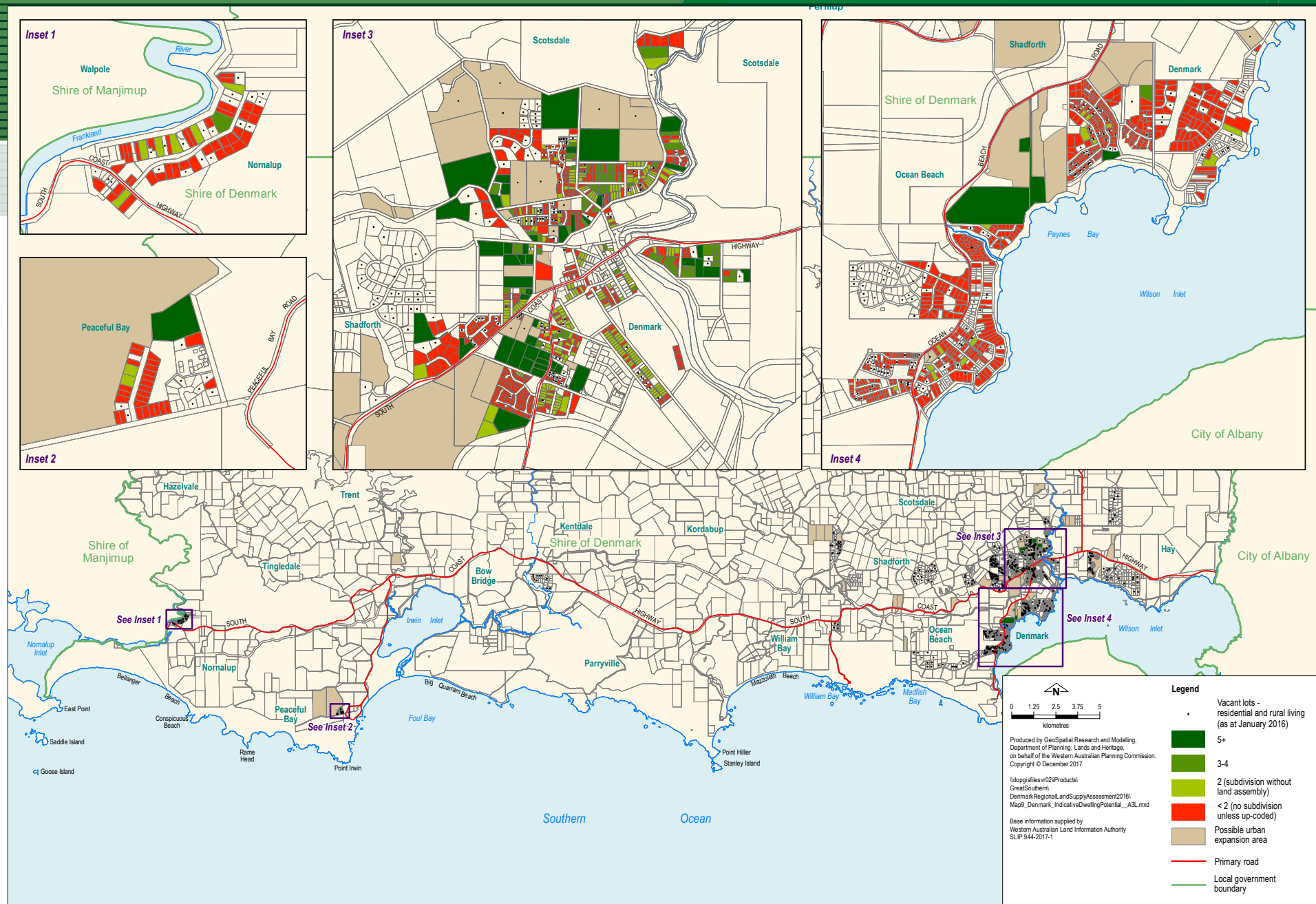
It must be noted that data depicted on Map 9 is indicative only. It should not be used as a guide to development potential on a site-by-site basis. The results do not take into account factors such as heritage, environmental and/or infrastructure constraints or other provisions of the local planning scheme. This may mean that the additional potential shown in Map 9 cannot be fully realised.

Table 4: Stock of vacant lots – Shire of Denmark

Locality	Number of vacant lots
Denmark	159
Hay	58
Kentdale	10
Ocean Beach	37
Peaceful Bay	8
Scotsdale	5
Shadforth	123
William Bay	4
Total	401

Source: Department of Planning, Lands and Heritage (2017) and Landgate (2017).

Note: Data is included for vacant lots on land zoned for residential and rural living purposes. Data shown in Table 4 has been filtered to exclude lots already included as part of development outlook projects.



Map 9: Vacant lots and Indicative dwelling potential (high)

5.7 Adequacy of supply

Analysis on the adequacy of supply in the Shire of Denmark is predicated upon an average household size of 2.3 persons per dwelling, and that existing rates of dwelling occupancy (at the 2016 Census) will be maintained.

In addition to the identified dwelling yield shown in Table 2 (section 5.5), development outlook analysis (section 5.5; Table 3 and Maps 5, 6 and 7) also identifies a number of investigation areas. Dwelling yields are not identified for investigation areas as further assessment is required to determine the suitability of the sites for residential land use. Once substantial planning has been undertaken for investigation areas, and if such areas have been determined as suitable for residential land use, the temporal land supply may be extended.

The median (Band C) *WA Tomorrow* population forecast for the Shire shows an average annual population increase of 103 residents from 2011 to 2026. Population growth of this nature will require the construction of an additional 63 dwellings per annum

(based on an average household size of 2.3 persons per dwelling and an occupancy rate of 70.8 per cent) in order to accommodate growth.

Under this growth scenario, there are sufficient stocks of residential and rural living land⁷ identified to meet population growth into the long term (Table 5). A hypothetical temporal land supply of 30 years (36 years if the stock of vacant lots is included in the supply capacity) has been identified. This supply has the capacity to support an additional population of approximately 9,000.

Table 5: Adequacy of supply – Shire of Denmark

Timeframe	Estimated dwelling requirement	Identified dwelling yield
2016 - 2021	341	729
2021 - 2026	313	456
2026 - 2031	315	353
2031 - 2036	315	353
Total	1,284	1,890
Stock of vacant lots	401	

Source: Department of Planning, Lands and Heritage (2017).

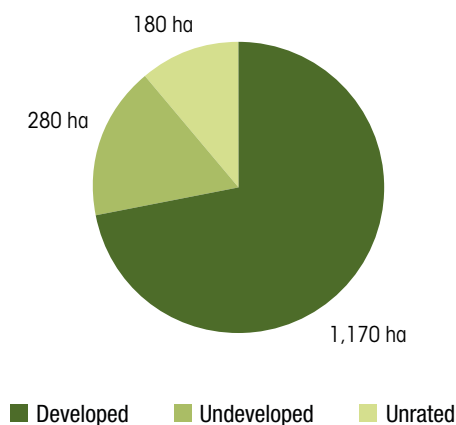
⁷ Includes existing residential and rural residential zoned land, as well as areas identified for future residential and rural living development.

6 Rural living

Within the Shire of Denmark, land zoned for rural living purposes covers approximately 1,630 hectares. The Shire's stocks of rural living land are located across the localities of Hay, Kentdale, Kordabup, Ocean Beach, Scotsdale, Shadforth and William Bay. Using the IRIS land supply model, areas of land zoned for rural living purposes are assessed to provide a snapshot of rural living stocks within the Shire as at December 2016. Land zoned 'Rural Multiple Occupancy' and 'Special Rural' is included in this analysis.

IRIS analysis identified 439 lots (1,630 hectares) on land zoned for rural living purposes in the Shire of Denmark. Approximately 1,170 hectares (72 per cent) of this stock was considered to be developed. A further 280 hectares (17 per cent) and 180 hectares (11 per cent) were considered to be undeveloped and unrated respectively (Figure 10).

Figure 10: Stock of land zoned for rural living purposes - Shire of Denmark

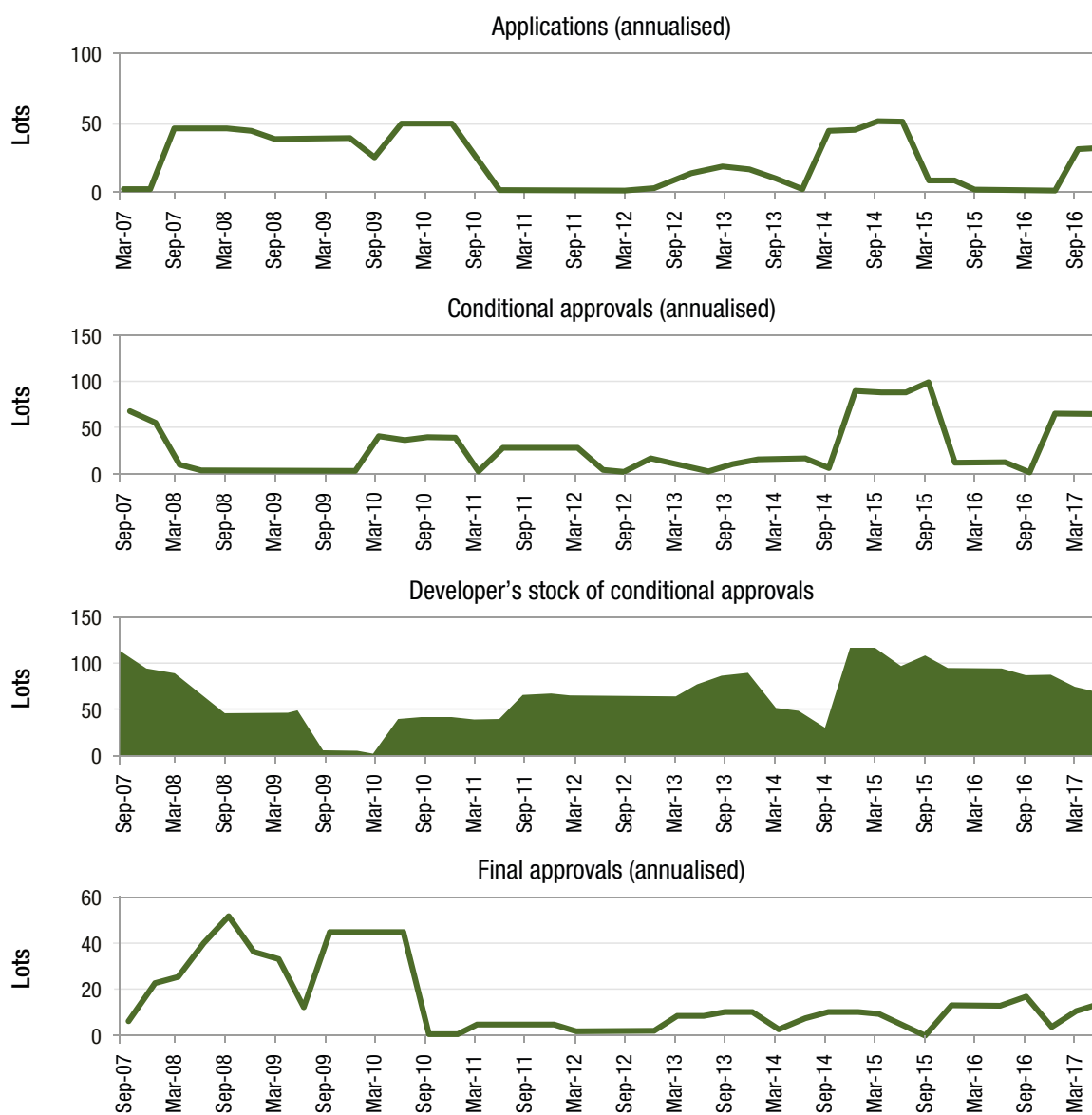


Source: Department of Planning, Lands and Heritage (2017) *Integrated Regional Information System*

Figure 11 depicts data for rural living subdivision activity over the decade to June 2017. During this period, 251 lots were granted conditional approval, with 150 lots progressed to final approval. At the end of the June 2017 quarter, there were 70 rural living lots with conditional approval.

Rural living developments have been popular in recent years within the Shire. It is anticipated that rural living lots will continue to be sought after by new residents, particularly those seeking a sea change/tree change lifestyle. In addition to the current stock of rural living zoned land (1,630 hectares), the Shire of Denmark Local Planning Strategy identifies an additional 560 hectares of land currently zoned 'Rural' under the local planning scheme to be rezoned to 'Rural Residential' and 'Rural Smallholdings'. These amount to an approximate 1,040 hectares of land available for future rural living development. These stocks are located across the localities of Denmark, Hay, Ocean Beach, Scotsdale and Shadforth. Areas with potential for further subdivision have been incorporated into this report's development outlook analysis (section 5.5).

Figure 11: Rural living subdivision activity and lot supply pipeline



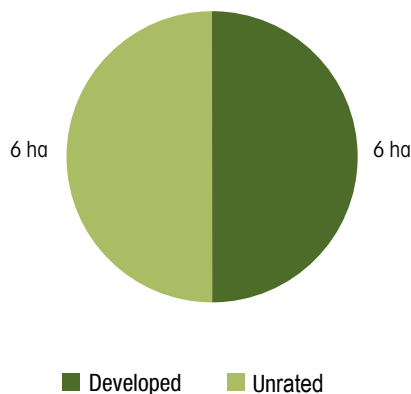
Source: Western Australian Planning Commission (2017) *State Lot Activity* and Water Corporation (2017).

7 Industrial

Within the Shire of Denmark, land zoned for industrial purposes covers approximately 12 hectares. The Shire's stock of industrial land is contained within the Denmark Light Industrial Area (LIA), located within the Denmark townsite.

Using the IRIS land supply model, areas of land zoned for industrial purposes are assessed to provide a snapshot of the stock of industrial land within the Shire as at December 2016. Land in the Denmark LIA, which is zoned 'Industrial', is included in this analysis.

Figure 12: Stock of land zoned for industrial purposes - Shire of Denmark



Source: Department of Planning, Lands and Heritage (2017) *Integrated Regional Information System*

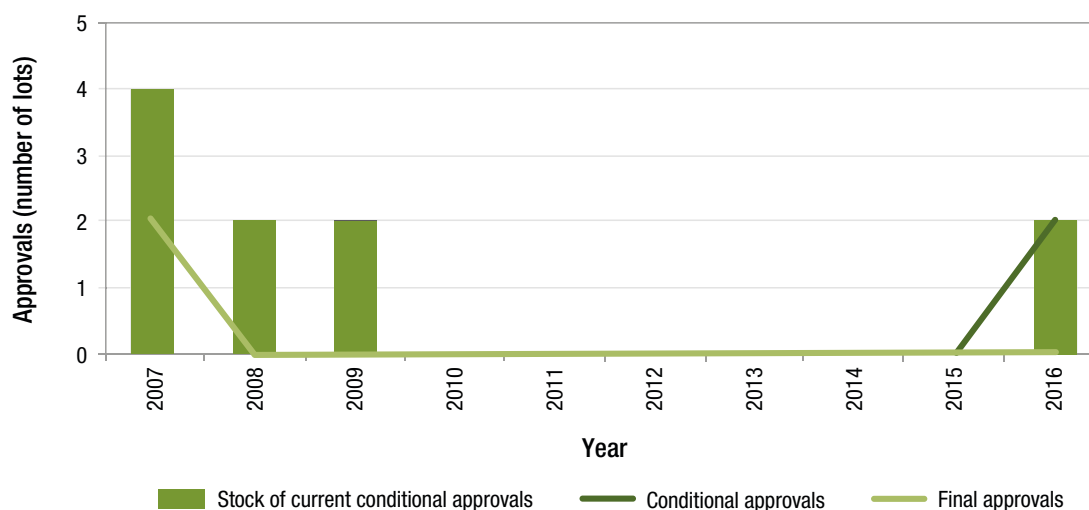
IRIS analysis identified 39 lots (12 hectares) on land zoned for industrial purposes in the Shire of Denmark. Six hectares of this stock was considered to be developed, with the remaining six hectares considered to be unrated (Figure 12). Most of the unrated stock of land in the Denmark LIA is comprised of Crown land and drainage, parks and recreation and public use reserves.

The Denmark LIA has been operating in its current location for an extended period of time, with some businesses in the LIA outgrowing their sites. Several businesses have been allowed to operate from Shire-owned 'short-term' leased land outside Denmark, due to shortages of land in the LIA and to secure the employment opportunities they provide. There is limited capacity for expansion of the LIA, due to the presence of remnant native vegetation on unrated land within the LIA. The LIA's proximity to residential areas also presents a barrier to new general industry uses commencing in the LIA.

Figure 13 shows industrial subdivision activity in the Shire from 2007 to 2016. In 2016, conditional subdivision approval was granted to create two lots in the LIA.

Due to the Denmark LIA's limited capacity for expansion and issues associated with new general industry uses, a new industrial area for the Shire has been planned adjacent to McIntosh Road. Stage one of the new industrial area forms part of the Denmark East Development Precinct project (site IND194). The new industrial area will cover approximately 42 hectares and can accommodate approximately 35 lots once fully developed. The Shire of Denmark has acquired approximately 11 hectares of land for the industrial area, which is proposed to accommodate the project's first stage of six lots. As at September 2017, a local planning scheme amendment to rezone the site to 'General Industry' and 'Special Use' is awaiting determination.

Figure 13: Industrial subdivision activity - Shire of Denmark (2007-2016)



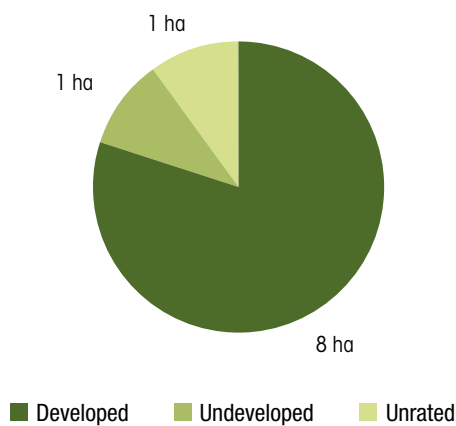
Source: Western Australian Planning Commission (2017) *State Lot Activity*

8 Commercial

Within the Shire of Denmark, land zoned for commercial purposes covers approximately 10 hectares. Almost all of the Shire's stock of commercial land is located in the Denmark town centre. Using the IRIS land supply model, areas of land zoned for commercial purposes are assessed to provide a snapshot of the stock of commercial land within the Shire as at December 2016. Land zoned 'Commercial' and 'Professional Office' is included in this analysis.

IRIS analysis identified 90 lots (10 hectares) on land zoned for commercial purposes in the Shire of Denmark. Approximately eight hectares of this stock was considered to be developed. A further one hectare each were considered to be undeveloped and unrated (Figure 14).

Figure 14: Stock of land zoned for commercial purposes - Shire of Denmark

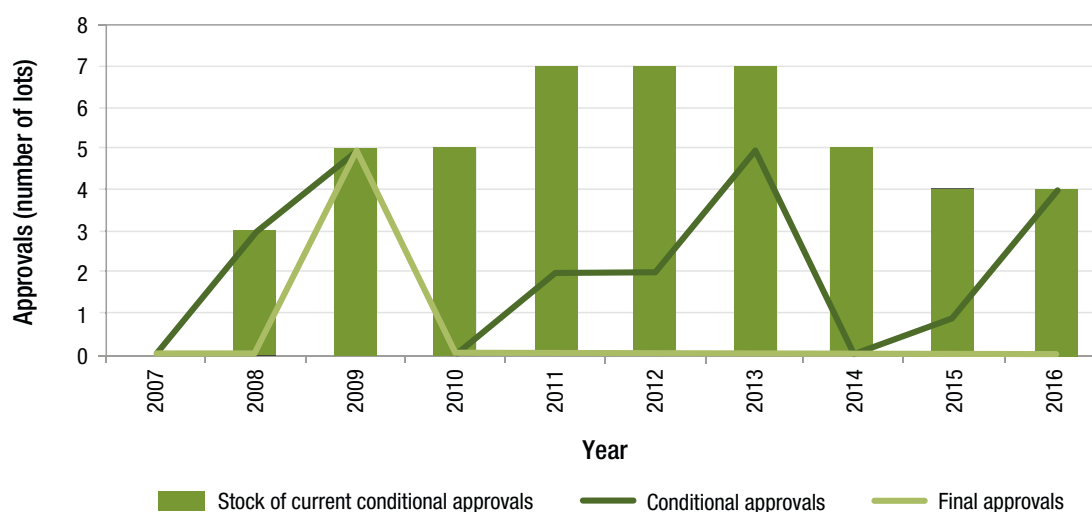


Source: Department of Planning, Lands and Heritage (2017) *Integrated Regional Information System*

Figure 15 shows commercial subdivision activity in the Shire from 2007 to 2016. During this period, a total of 22 lots were granted conditional approval, with five lots progressed to final approval.

The Shire of Denmark Local Planning Strategy sets out a strategic framework to ensure that the Denmark town centre continues to be the focal point for commercial activity within the Shire. The Local Planning Strategy proposes to rezone land to the north of the existing town centre (site DMK71) to 'Commercial' in order to meet the need for additional commercial land.

Figure 15: Commercial subdivision activity - Shire of Denmark (2007- 2016)



Source: Western Australian Planning Commission (2017) *State Lot Activity*

9 Service infrastructure

The following section outlines the broad infrastructure capacity for the Shire of Denmark and identifies upgrades that may be required to facilitate future residential, industrial and commercial growth in the Shire.

9.1 Water

The Water Corporation is the licensed provider of water for the Denmark townsites. Water is currently sourced from Quickup Dam, which was built in 1988. Denmark River Dam, which was constructed in 1961, is used during periods of low runoff into Quickup Dam to supplement Denmark's water supply.⁸ The installation of a 3.4 kilometre pipeline between Quickup Dam and Denmark River Dam was carried out in 2015, with the purpose of securing Denmark's drinking water supply.

A new high level tank was installed at the McLean Road tank site in 2011 to enable better management of peak water demands during the summer.

The most recent Water Corporation forecasts project an average growth in the resident population supplied by the scheme of 1.7 per cent per annum over the next 20 years.

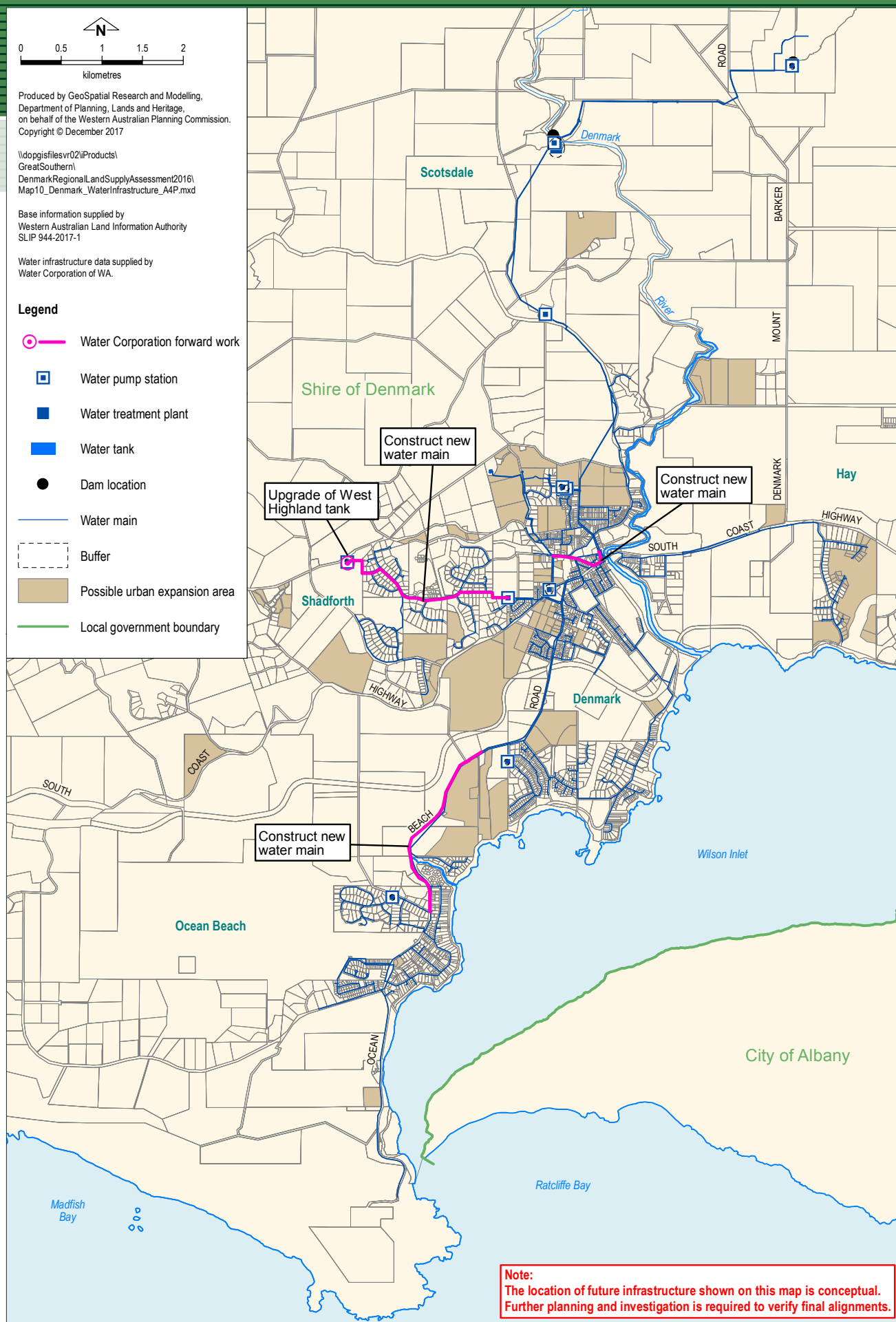
Key water projects planned to meet future demands include:

- a new distribution main to be constructed along Mount Shadforth Road linking the eastern side of town with the McLean Road tank
- the construction of a new water main along Peace Street, together with the construction of a second tank at the West Highlands tank site; and
- the construction of a new water main along Ocean Beach Road.

The Great Southern Regional Water Supply Strategy (2014) identifies options for potential long-term water supply sources for Denmark, which include increasing the Quickup Dam storage, a small dam on the upper Denmark River, or a connection to the Lower Great Southern towns' water supply scheme.

The catchment areas for Quickup Dam and Denmark River Dam are proclaimed as Public Drinking Water Source Areas (PDWSA) under the *Country Areas Water Supply Act 1947*. The majority of the Quickup Dam catchment area is classified as a priority 1 (P1) area. The Quickup River Dam Catchment Area: Drinking Water Source Protection Plan (DWSPP) (2011) aims to protect the quality of water in the Quickup Dam catchment area for public drinking water supply. The DWSPP identifies potential contamination risks associated with land uses in the catchment, and recommends protection strategies to ensure these risks are effectively managed. The Denmark River Dam catchment area is classified as a Reservoir Protection Zone. Reservoir Protection Zones are referred to as prohibited zones under the *Metropolitan Water Supply, Sewerage and Drainage By-laws 1981* (the By-laws). The By-laws contain provisions to prevent deterioration of the quality of water, control and management of existing and future development, and regulation of behaviour of persons entering catchment areas.

⁸ Water Corporation (2017) Denmark water supply upgrade. Available online at <http://www.watercorporation.com.au/water-supply/ongoing-works/denmark-water-supply-upgrade>. Access date: January 2017.



Map 10: Water infrastructure

9.2 Wastewater

The Water Corporation operates the Denmark Wastewater Treatment Plant (WWTP). The Denmark WWTP produces secondary treated wastewater using an intermittently decanting extended aeration type activated sludge plant. The Denmark WWTP was recently upgraded in 2015. The main component of the upgrade included the installation of equipment that significantly improves the quality of the treated wastewater produced by the WWTP prior to its disposal. Currently, treated wastewater is discharged to the Wilson Inlet via a small drainage line which is approximately one kilometre in length.

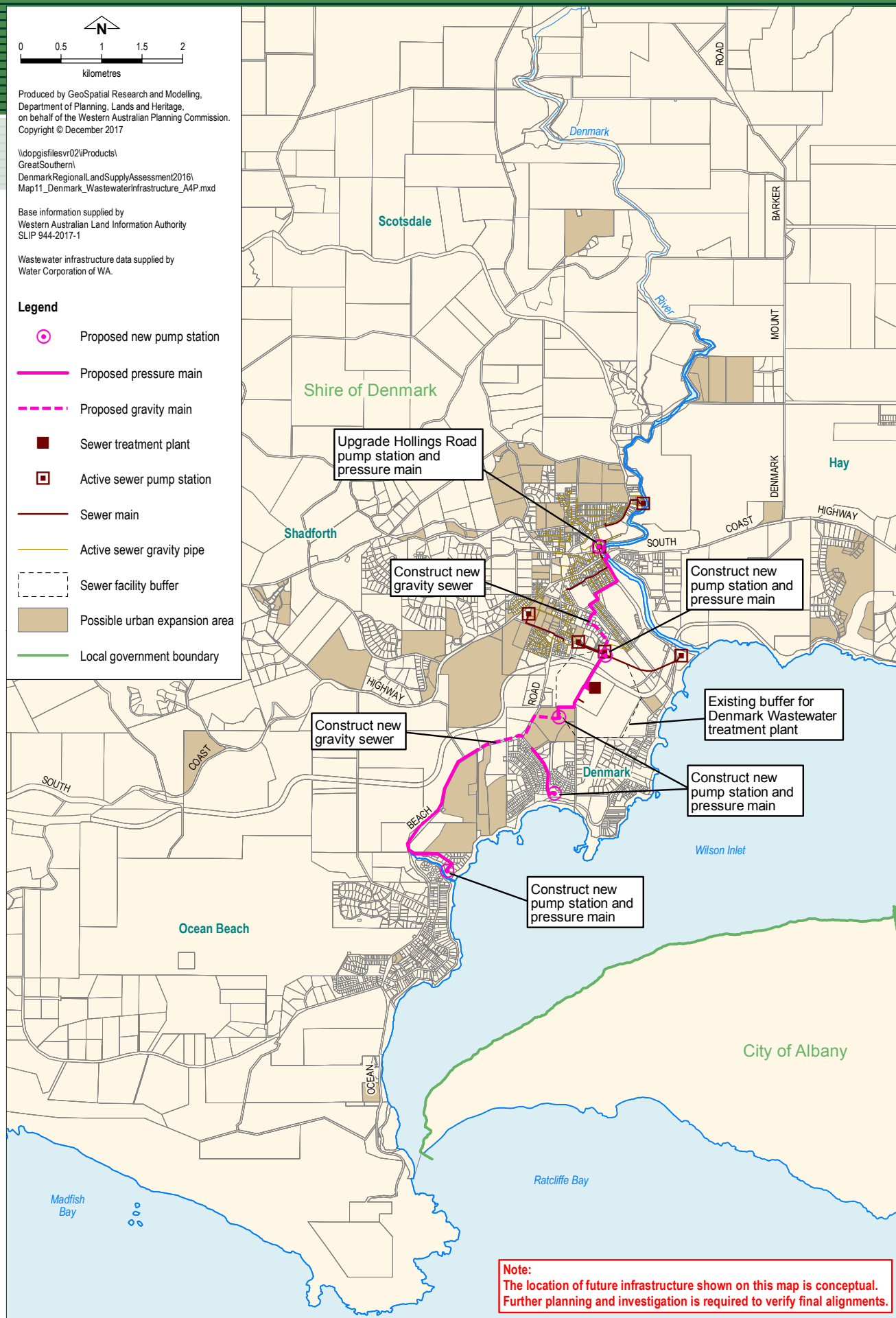
There are four wastewater pump stations located within the Denmark townsite.

The most recent Water Corporation forecast projects an average growth in the resident population supplied by the scheme of 1.6 per cent per annum over the next 20 years.

Water Corporation long-term wastewater planning covers most of the land identified for future residential development in the Denmark townsite. The Shire of Denmark Local Planning Strategy identifies the residential areas of Weedon Hill, Minsterly Road, Inlet Drive and Beveridge Road (including sites DMK68 and DMK72) as 'urban residential' (lots up to 2,000 square metres in area). These areas have been identified as having significant infill potential, subject to R-Code changes. These areas have also been identified by the Lower Great Southern Strategy as priority areas for the provision of reticulated sewerage, if and when funding becomes available under the Infill Sewerage Program or through other means. These areas; however, are located within close proximity to Wilson Inlet, which has been categorised as a sewage sensitive area under the draft Government Sewerage Policy (2016). The draft policy proposes to severely limit unsewered subdivision of lots less than one hectare within sewage sensitive areas. For infill potential to be realised, an extension to the current reticulated sewerage network would be required.

Key wastewater projects planned to meet future demands include:

- an upgrade of the Hollings Road pump station and pressure main to service developments to the north of the Denmark townsite; and
- the construction of a number of pump stations and pressure mains to service land to the south west of the Denmark town centre, across the localities of Denmark and Ocean Beach.



Map 11: Wastewater infrastructure

9.3 Energy

Western Power manages energy supply to the Denmark area. Denmark, as well as the remainder of the Great Southern region, is covered by the Muja load area within the South West Interconnected System, which extends from the Muja Power Station (located in the Shire of Collie) to Manjimup and Beenup in the south west, Albany to the south east, Boddington to the north and Narrogin to the north east. Electricity in the Denmark area is supplied via overhead distribution lines which extend from the Albany substation.

The majority of increase in energy demand in the Great Southern has been centred on Albany and Denmark. The Albany/Denmark area is characterised by shorter and more heavily loaded overhead lines compared to the remainder of the Great Southern, where overhead lines are longer and more lightly loaded.

A steady increase in energy demand in the Albany/Denmark area is expected to continue. It is envisaged that increases in transfer capacity to the distribution network that supplies the Denmark area will be required, in order to meet forecast demand.

As part of Western Power's 2017/18 maintenance program, work will commence in July 2017 to replace 66 power poles and two kilometres of overhead power lines. Work is estimated to be completed in June 2018.

The Lower Great Southern Strategy proposes the reinforcement of existing renewable energy sources and investigation into potential new sources to supplement conventional supplies of energy. Opportunities exist for the development of alternative sources of power, including wind and solar. Building on existing renewable sources such as wind farms and biomass power stations has the potential to improve energy supply reliability in the region.⁹

A wind energy facility consisting of two 79 metre high, 800 kW turbines has been constructed on a site at Wilson Head. The facility is connected to the South West Interconnected System electrical grid.

⁹ Western Australian Planning Commission (2016) *Lower Great Southern Strategy*



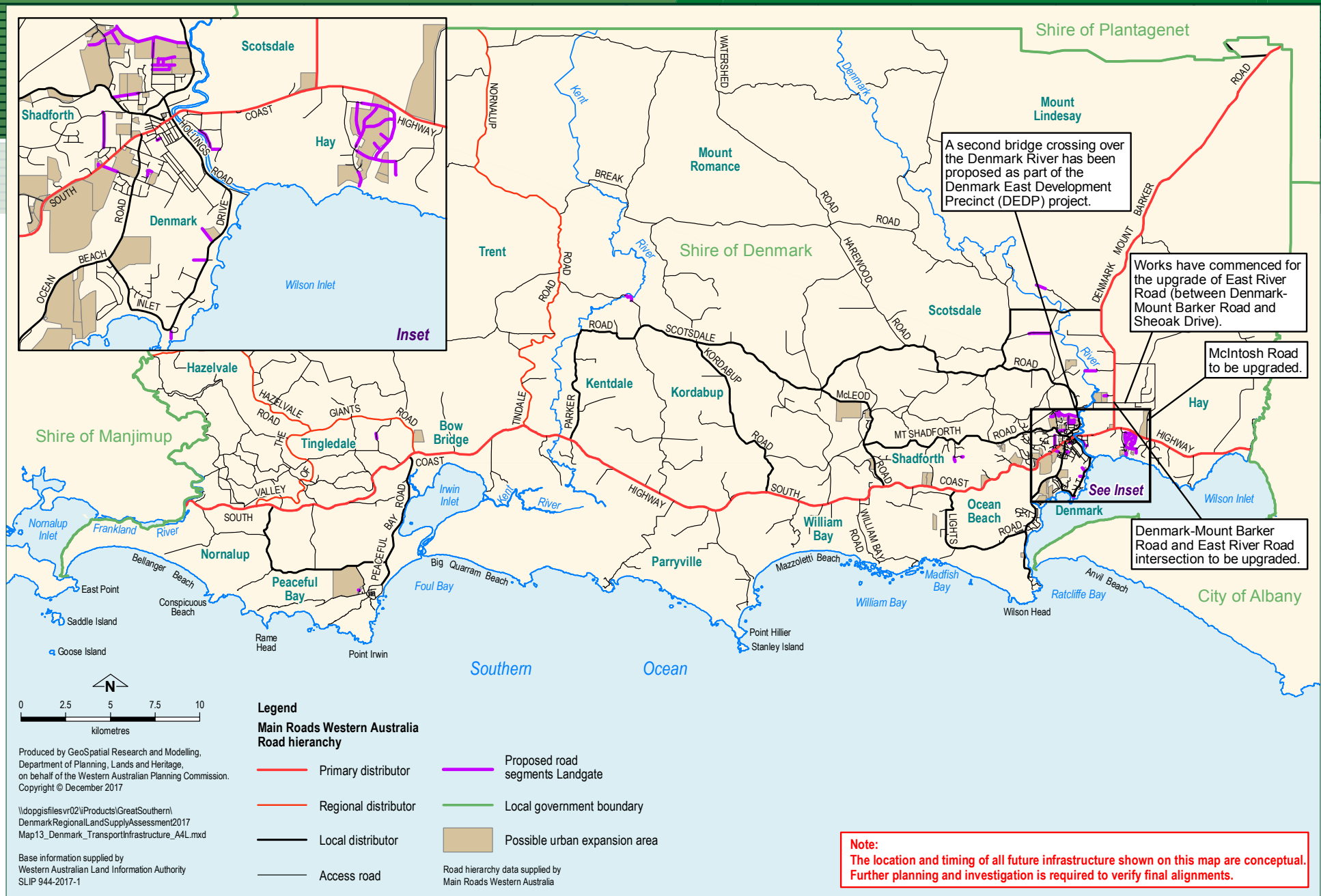
Map 12: Power infrastructure

9.4 Transport

The Shire of Denmark is served by a primary and regional distributor road network consisting of South Coast Highway, Denmark-Mount Barker Road, Tindale Road, Valley of the Giants Road and Hazelvale Road. The South Coast Highway serves as the Denmark townsite's main thoroughfare and provides connections to Walpole, Manjimup and Bunbury to the west, and Albany to the east. The Denmark-Mount Barker Road provides a connection to Albany Highway at Mount Barker, and Tindale Road provides a connection to Muir Highway at Rocky Gully. Tindale Road is currently a gravel road, which is narrow in areas and depending on weather conditions, is not accessible to two-wheel drives. South Coast Highway and Denmark-Mount Barker Road are controlled by Main Roads Western Australia.

South Coast Highway currently provides the only link in and out of the Denmark townsite and the major bridge link over the Denmark River. A second bridge crossing over the Denmark River has been identified in the Shire of Denmark Local Planning Strategy and planning for the proposed bridge has been undertaken as part of the Denmark East Development Precinct (DEDP) project. The DEDP project also seeks to upgrade approximately 6.5 kilometres of East River Road and McIntosh Road and modify/upgrade existing road intersections. The construction of a second bridge crossing will accommodate local traffic movements for residents living north of the Denmark townsite. Modifications/upgrades to East River Road and McIntosh Road (east of the Denmark-Mount Barker Road) and existing intersections is required to support permit vehicle access to the planned Denmark Industrial Area, located on McIntosh Road.

Funding for the DEDP project was announced in March 2016, with \$7.6 million allocated by the State Government to the project. Construction of East River Road (between Denmark-Mount Barker Road and Sheoak Drive) has been undertaken and the completion of the restricted vehicle access route to the proposed McIntosh Road industrial area is to be completed in 2018.



Map 13: Transport infrastructure

Glossary

Building approvals

A **house** is a detached building primarily used for long-term residential purposes. It consists of one dwelling unit. For instance, detached 'granny flats' and detached dwelling units (for example, caretaker's residences) associated with a non-residential building are defined as houses. Also includes 'cottages', 'bungalows' and rectories.

Other dwellings include all dwellings other than houses. They can be created by: the creation of new other residential buildings (for example, flats); additions/alteration work to an existing residential building; either new or alteration/addition work on a non-residential building; conversion of a non-residential building to a residential one, creating more than one dwelling unit.

Population

Estimated resident population (ERP) - Available for local government areas and SA2 geographies, this figure represents the number of people counted in an area on 30 June. It is calculated by:

- adding the people who were temporarily absent from the area on census night;
- subtracting the overseas visitors counted in the area on census night;
- augmenting the figure for estimated net undercount in the census;
- adjusting for difference between census night and 30 June; and
- updating each year using administrative data from a variety of sources.

ERPs are the official population figures for Australia. They are widely used as a basis for Government decision-making, including the allocation of seats in federal parliament and distribution of Commonwealth grants.

Geography

The Great Southern Region is one of the nine regions of Western Australia, as defined by the *Regional Development Commissions Act 1993*. The Region is comprised of 11 local government areas including: Albany, Broomehill-Tambellup, Cranbrook, Denmark, Gnowangerup, Jerramungup, Katanning, Kent, Kojonup, Plantagenet and Woodanilling.

Significant Urban Areas (SUAs) represent concentrations of urban development with populations of 10,000 people or more using whole Statistical Areas Level 2 (SA2s). They do not necessarily represent a single Urban Centre, as they can represent a cluster of related Urban Centres with a core urban population over 10,000. They can also include related peri-urban and satellite development and the area into which the urban development is likely to expand.

Statistical Areas Level 1 (SA1s) have been designed as the smallest unit for the release of Census data. SA1s generally have a population of 200 to 800 persons, and an average population of about 400 persons. They are built from whole Mesh Blocks and there are approximately 55,000 SA1s covering the whole of Australia.

Statistical Areas Level 2 (SA2s) are a general-purpose medium sized area built from whole SA1s. Their aim is to represent a community that interacts together socially and economically. SA2s generally have a population range of 3,000 to 25,000 persons and have an average population of about 10,000 persons. The SA2 is the lowest level of the ASGS structure for which Estimated Resident Population (ERP), Health and Vitals and other non-Census ABS data are generally available. There are 2,196 SA2s covering the whole of Australia.

Statistical Areas Level 3 (SA3s) provide a standardised regional breakup of Australia. The aim of SA3s is to create a standard framework for the analysis of ABS data at the regional level through clustering groups of SA2s that have similar regional characteristics. SA3s are built from whole SA2s and in general have populations between 30,000 and 130,000 persons. They are often the functional areas of regional cities and large urban transport and service hubs.

Mesh Blocks are the smallest geographic region in the Australian Statistical Geography Standard (ASGS), and the smallest geographical unit for which Census data are available. Most residential Mesh Blocks contain approximately 30 to 60 dwellings. Mesh Blocks have been designed to be small enough to aggregate accurately to a wide range of spatial units and thus enable a ready comparison of statistics between geographical areas, and large enough to protect against accidental disclosure. Due to the small size of Mesh Blocks, data are confidentialised and are only released for Basic Person Counts and Dwelling Counts.

Subdivision approvals

Conditional approval is granted by the Western Australian Planning Commission (WAPC) for subdivision to begin subject to certain conditions being met. The approval is preceded by an assessment of the proposed subdivision plan by statutory referral agencies, including servicing authorities. On receipt of conditional approval, the proponent may commence subdivision development in accordance with the conditions of approval. A conditional approval remains valid for three years where five lots or less are approved and for four years where six lots or more are approved.

Current valid conditional approvals refer to those conditional approvals that are still valid but have not yet been issued with final approval. In general, these are approvals for which construction/servicing has not yet commenced or is currently under way (see **active conditional approvals**).

Active conditional approvals refer to conditionally approved lots where a servicing agreement (agreement to construct) has been signed between the Water Corporation and the developer. These are termed lots on non-cleared agreements.

Inactive conditional approvals are where conditional approval has been granted and the approval is still valid, but where a servicing agreement (agreement to construct) has not been signed between the Water Corporation and the developer.

Lapsed conditional approvals are those where the approval has expired and the conditions have not been met.

Final approval is the WAPC endorsement of the proponent's submitted plan/diagram(s) of survey describing the now complete subdivision; constructed in accordance with the conditions set down in the conditional approval. Final approvals are then registered with the Office of Titles where certificates of titles for the newly created lots can be issued.

Developers lodged application - subdivision application and its accompanying lots received by the WAPC for subdivision approval.

Application under assessment - is the number of applications and accompanying lots awaiting decision for subdivision. Statistics include deferred applications.

Planning

Local planning schemes are detailed planning schemes developed by local governments to identify the range of permitted land uses within specified locations. Within the Metropolitan Region Scheme and Peel Region Scheme areas, local planning schemes must be consistent with the provisions identified within the relevant region scheme where applicable.

Local planning strategies contain the strategic plan and policy context of a local planning scheme. The strategy sets out the general aims, intentions and desired outcomes for long-term growth and change, having regard to social, economic and environmental factors. An assessment of the capacity of infrastructure such as water, sewerage, electricity and roads is also usually considered in a local planning strategy. Residential densities and commercial centres may also be identified.

A **scheme amendment** is the process of changing zones or reservations from one use to another. The amendment process requires proposed amendments to be advertised for wider community and government comment. The amendment process is regulated by the *Planning and Development Act 2005*, allowing for extensive community consultation to review the proposal before a final decision is made.

Structure plan refers to a document including spatial plans that details the proposed layout of a future development area. The preparation of a structure plan is one of the first steps in progressing proposals for the development of new areas. In addition to illustrating details such as road configuration and the location of retail and community facilities such as shops, schools and public open space, a structure plan can also show details such as housing density, land use classifications and buffer zones. Structure plans highlight opportunities and constraints in an area, and can provide the basis for amendments to local planning schemes. Structure plans can generally be categorised as region, district or local structure plans.

Temporal land supply is an estimate of the number of years it will take to completely consume land that is currently zoned for urban development. Temporal land supply can vary based on different development scenarios, particularly where different rates of density and infill are applied.

Underlying housing demand refers to the need for additional dwellings that will satisfy the requirements of a population (and population growth), irrespective of the demand actually expressed by the market.

References

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Appendix 1

Integrated Land Information Database (ILID)

ILID 2015 – Background:

The Integrated Land Information Database (ILID) is a net land-use assessment and capability model that is generated at a cadastral level for the whole of Western Australia. The database can be used to identify the current range of land uses within a number of predefined boundaries. It can also model future capability based on what is known about the current (or proposed) planning policies and statutory instruments.

The model is produced within a Geographic Information System by overlaying a variety of layers to compute the coincidence of two or more parameters. For example, if a dataset containing the locations of school sites is overlayed with another dataset that shows the areas that are within two kilometres of the coast, it is possible to generate a single dataset with schools that are within two kilometres of the coast. This process can be repeated with a variety of datasets in endless combinations to help with multi-criteria decision analysis through the process of elimination.

The ILID works by linking the spatial extent of many different input layers with all the unique cadastral identifiers that exists at a particular point in time. The result of this overlay process creates many versions of the cadastre attributed with discrete pieces of information i.e. cadastre version of the local planning scheme zones, region schemes, R-Codes and so on. The 'integrated' component of the database means that once all of the individual inputs have been identified, they can all be joined together using a tabular join through the common PIN number field across all datasets.

For this document, the ILID has been used to identify the lot potential and additional dwelling potential of all residential lots (with an R-Code identified in the *Shire of Denmark Town Planning Scheme No. 3*) in the Shire of Denmark. Vacant lots were not included in this analysis.

ILID analysis in this document includes three key inputs: lot size, R-Code value and dwelling count/location. Constraints to subdivision such as heritage, infrastructure supply and environment are not variables included in this analysis, and as such, a significant proportion of the development potential may not be realised.

Definitions:

Lot potential is used to determine how many potential lots the R-Code intends to yield as a maximum. For example a lot that has an R-Code of R20 has a planned density of a single 450m² lot. Or a 900m² lot has the potential to create two 450m² lots. In any case the lot potential can only be calculated if there is an existing R-Code present.

Net dwellings, also known as **additional dwelling potential**, identifies the extra amount of dwellings a single lot can add on (disregarding the location of the current dwelling footprint and has a hundred percent take-up rate). This is determined by the size of the lot and the current lot potential based on the R-Code planning and any existing dwellings.

Appendix 2

Integrated Regional Information System (IRIS)

The sections of this report discussing the development status of land zoned for residential, rural living, industrial and commercial purposes draw heavily on the tiered land supply assessment model; the central output of the Integrated Regional Information System (IRIS). The model is a geographic information system (GIS) based tool used to assess key measures of land use dynamics across Western Australia.

The IRIS model groups zones under all local planning schemes into primary, secondary and tertiary categories. This grouping of local planning scheme zones forms the zone 'catchment' for each category.

Tier one of the IRIS model groups local planning scheme zones into primary categories for analysis. The table below shows the groupings of the *Shire of Denmark Town Planning Scheme No. 3*.

Primary category (IRIS analysis)	Shire of Denmark Local Planning scheme No.3 category
Residential	Residential
	Special residential
Rural living	Rural multiple occupancy
	Special rural
Industrial	Industrial
Commercial	Commercial
	Professional office
	Tourist

Tier two of the IRIS model addresses the development status of each lot within the specified primary land use category. Each cadastre (lot) within each primary land use category is attributed one of three values (developed, undeveloped or unrated), based on information from the Valuer General's Office of Western Australia.

Developed refers to lots that are zoned for development for the purposes of the specified primary land use category for which premises information is captured in Landgate's property valuation database.

Undeveloped refers to lots that are zoned for development for the purpose of special residential and rural living that are recorded as vacant in Landgate's property valuation database.

Unrated refers to lots that are zoned for development for the purpose of the specified primary land use category for which no vacant land or premises valuation information has been captured in Landgate's property valuation database. This may include State or local government owned lots or premises exempt from rates, Crown allotments, common property within lots on survey, newly created lots on survey, land otherwise exempt from rates and some public roads which are zoned for the primary land use under the local planning scheme.

Tier three of the IRIS model refers to the nature of development by assessing the premises type against the land use as indicated by the local planning scheme. Tier three of the IRIS model has not been included in analysis for this report as sites with identified development potential are described in Table 3 and Maps 6, 7 and 8 of this document.