



Local Planning Strategy

Part 2 | Local profile



Acknowledgement to Country

We wish to acknowledge the traditional custodians of the land we are meeting on, the Wadandi people. We wish to acknowledge and respect their continuing connection to the land, waters and community.

We pay our respects to all members of the Aboriginal communities and their culture; and to Elders past and present, their descendants who are with us today, and those who will follow in their footsteps.

1 Introduction

In accordance with clause 11(2) of the Planning and Development (Local Planning Schemes) Regulations 2015, a local planning strategy must set out the long-term planning directions for the local government, apply any State or regional planning policy that is relevant to the strategy, and provide the rationale for any zoning or classification of land under the local planning scheme.

The long term planning directions are set out in Part 1 of the Strategy.

Part 2 of the Strategy details the relevant policies and the justification for the LPS and the rationale for land classifications in Scheme 8. A number of Key Issues (KIs) are identified throughout which provide the basis for the Strategies and Actions.

Sections 2 and 3 outline the relevant state, regional and local policies that apply to Capel and indicates how they have been incorporated into the Strategy.

Section 4 includes a local profile detailing the evidence related to various planning matters. The Local Profile is structured into the six Future Directions (Community, Environment, Economy, Leadership, Infrastructure and Engagement) in order to closely link with the Strategies and Actions section in Part 1.

Finally, in Section 5 there is an analysis of the Key Issues which enables them to be addressed through the Strategies and Actions.

2 State planning framework

The State Planning Framework is established through the Planning and Development Act 2005.

The guiding document that sets a vision for planning and development in Western Australia is the State Planning Strategy 2050 (WAPC, 2014d).

It is based on a framework of planning principles, strategic goals and State strategic directions that respond to the challenges and opportunities that drivers for change present for the future land-use planning and development of Western Australia.

The vision for the State of sustained growth and prosperity as outlined under the strategy is:

- A diverse State: offering the diversity of ecosystems, landscapes, enterprises, people and cultures
- A livable State: the place for choice for the brightest and best
- A connected State: as connected to the rest of the world as any other place
- A collaborative State: enabling alignments that progress the State's sustained prosperity.

The State Planning Framework is also made up of a number of state planning policies, regional and sub-regional strategies, operational policies, position statements and guidelines.

State planning policies provide the highest level of planning policy control and guidance in Western Australia.

They are prepared under Part 3 of the Planning and Development Act 2005.

Regional and sub-regional strategies provide for the comprehensive planning of regions, sub-regions or particular locations to guide change in the short, medium and long term.

State Operational Policies guide decision-making on subdivision and development applications as well as other proposals as deemed appropriate. Operational Policies include general policies as well as specific ones related to residential, rural, industrial and commercial subdivision, and development on land reserved under a region scheme.

The State Planning Framework also includes a number of Guidelines, including position statements, bulletins, manuals, etc. which provide detailed guidance on the application of Commission policies or set out the policy position or advice with respect to a specific planning practice or matter.

The most relevant elements of the State Planning Framework to this Local Planning Strategy for Capel are set out in Appendix A1. This provides a summary of each element and a guide as to how it relates to the Key Issues, Strategies and Actions in the LPS.

3 Local planning framework

There are a number of Shire of Capel corporate strategies, along with existing local planning strategies, schemes, policies and structure plans that are relevant to and are reflected in this Local Planning Strategy.

The Shire's corporate strategies provide overall direction on community engagement and detailed plans for council activity and management of its assets.

Over recent years, a number of strategic planning documents have been adopted by the Shire which deal with a range of planning issues and planning for the growth and management of particular areas within the Shire such as the Boyanup and Capel Townsites.

This LPS consolidates the strategic elements of these strategies into a single, usable document. The identified planning strategies have not been revoked and will still provide guidance on detailed matters where relevant.

The local planning framework also includes statutory planning tools such as a Heritage List, Register of Significant Trees, Development Contribution Plan and Town Planning Scheme No.3 for Gelorup. The Shire's Local Planning Scheme No.7 is revoked and replaced by Local Planning Scheme No.8.

The Shire has adopted a range of local planning policies in accordance with Scheme 8 that guide particular aspects of subdivision and/or development.

There are a number of Local Structure Plans and Precinct Plans that apply to specific areas within the Shire of Capel.

These identify how land is to be developed and provide a broad framework to guide Council when it considers subdivision and development proposals.

In addition to illustrating details such as road configuration and the location of facilities such as shops, schools and public open space, these plans also show details such as housing density, land use classifications and zones, infrastructure requirements and, in the case of Precinct Plans, control the built form.

The strategic elements of these plans have been largely incorporated into the Local Planning Strategy. Where subdivision has occurred, Scheme 8 including the Scheme Map has been updated to include the zonings from the structure plans.

The most relevant elements of the local planning context to this Local Planning Strategy for Capel are set out in Appendix A2. This provides a summary of each element and a guide as to how it relates to the Key Issues, Strategies and Actions in the LPS.

4 Local profile

The Shire of Capel is a predominantly rural municipality situated on the Indian Ocean coast, 180 kilometres south of Perth, in the south west of WA. (SoC, 2018e) (Map B1.1)

The Shire is located between the regional centres of Bunbury and Busselton and comprises valuable agricultural and mineral resources while also accommodating significant population growth within the greater Bunbury region.

It has an area of 550 square kilometres with approximately 28 kilometres of coastline on Geographe Bay. The Shire comprises rural countryside, white sandy beaches, Jarrah/Marri forests and the Tuart Forest National Park, which is a part of the only naturally occurring Tuart forest in the world.

The town of Capel is situated on the Capel River and is the economic and administrative centre of the Shire with a 2016 population of 2,509. The Capel Civic Precinct is being improved to enhance civic, business and recreation opportunities in the town centre.

The town of Boyanup is located on the South Western Highway and Preston River, 18 kilometres south east of Bunbury. Boyanup is a small country town which provides 1,217 residents the option of country living within twenty minutes of Bunbury.

Dalyellup is a rapidly growing urban area in the north of the Shire, adjoining the City of Bunbury, with a developing district centre and a resident population of 8,998 in 2016.

Gelorup is located to the east of Dalyellup and had a population of 2,299 in 2016.

Gelorup offers a range of larger, unsewered residential and rural residential lots with extensive areas of natural vegetation.

Peppermint Grove Beach is a small coastal village established in the 1970s on coastal dunes between the Indian Ocean and low-lying pastures approximately eight kilometres northwest of Capel and south of the Capel River. The permanent resident population of Peppermint Grove Beach was 466 in 2016, however this increases substantially at holiday times.

In addition, a number of rural communities have developed around North Boyanup, Stratham, Stirling Estate and Gwindinup.

Urban development, particularly in Dalyellup, is influencing the demographic and cultural profile of the Shire's population.

As the towns of Boyanup and Capel begin to experience residential growth, the Shire will be required to address challenges related to managing demographic change in a 'growth' community and the increasing demand for community infrastructure, facilities and services.

In a recent university-led study the Shire of Capel topped the South West for overall quality of life, boosted by favourable perceptions of education, employment, wealth and health (Bond University, 2018).

4.1 Community

The maps in Appendix B1 provide an overview of the Shire's communities.

4.1.1 Population

The population of the Shire at the 2016 Census was 17,123, a 262% increase on the 2001 population of 6,517 (ABS, 2018a) (K11).

The Shire has been one of the fastest growing local government areas in Western Australia, with an average annual growth rate of 10.8% between 2001 and 2016. The population increased by 57% between 2001 and 2006, and by 43% between 2006 and 2011. This reduced to 17% between 2011 and 2016.

The estimated resident population (ERP) of the Shire was 18,022 for June 2018 according to the ABS.

Figure 2.1 Shire of Capel Population

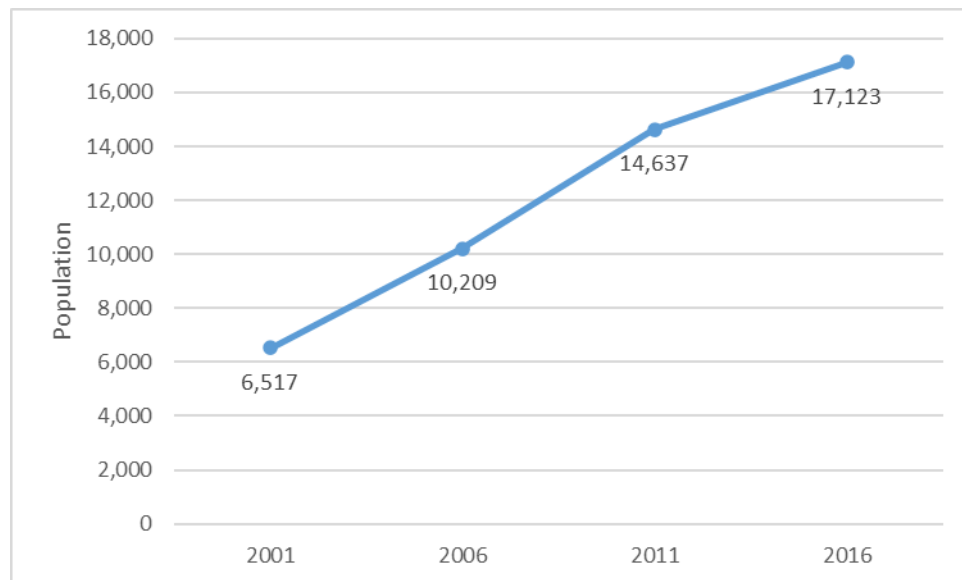


Figure 2.2 - Resident Population of Selected Localities

Locality	2006	2011	2016
Boyanup	615	785	806
Capel	2,151	2,201	2,509
Dalyellup	3,359	7,109	8,998
Gelorup	2,193	2,181	2,299
Peppermint Grove Beach	374	385	466
Shire of Capel	10,209	14,637	17,123

In 2016, 49% of residents in the Shire were male and 51% female compared to the figures for Australia of 49.3% male and 50.7% female.

The 2016 Census indicated that 2.3% of Shire residents were indigenous persons, compared with 2.8% in Australia. The median age of indigenous persons in the Shire was 20 in 2016.

There were 4,681 families in the Shire in 2016 and there was an average of 1.9 children per family, while the average household size was 2.8 persons.

The median age in the Shire was 34 in 2011 compared to 36 in Western Australia and 37 in Australia. This indicates that the population of the Shire is somewhat younger than Australia's population, with higher proportions of school age children and middle-aged parents and lower proportions of young adults and seniors (KI36 / KI37).

While an ageing population is occurring in Australia generally, the demographic of the Shire has included an increasing proportion of younger families, bucking the national trend to some degree.

It is likely that this profile is highly influenced by the development of the Dalyellup suburb in view of its attraction to younger family households.

'WA Tomorrow' (WAPC, 2019d), is a population report and forecast profile for local government areas including the Shire of Capel. Projections are based on five simulations which results in a Shire population range of 21,510 (Band A – lowest growth) to 25,630 (Band E – highest growth) for 2031.

Figure 2.3 – Age Profile 2016

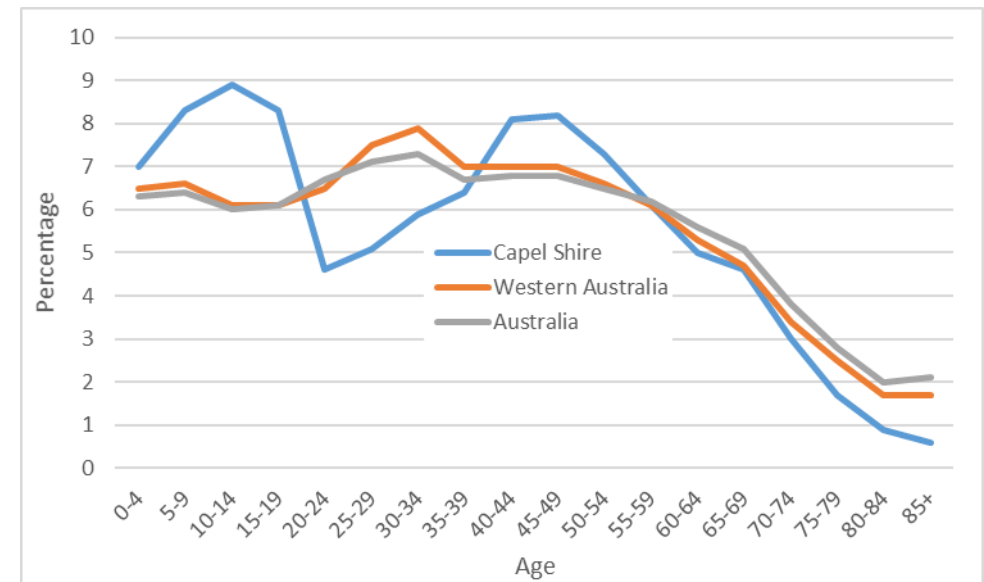


Figure 2.4 – Age Profile of Selected Localities 2016

Locality	Median Age	Aged 0-19	Aged 20-49	Aged 50-64	Aged 65+
Boyanup	44	25.9%	32.1%	26.2%	16%
Capel	39	28%	36.5%	18.5%	16.8%
Dalyellup	31	36.6%	43%	13.5%	6.9%
Gelorup	43	31.5%	30.4%	26%	12.2%
Peppermint Grove Beach	47	21.8%	34%	25.9%	18.4%

Figure 2.5 shows the Shire of Capel projections data for Band C, which represents a projected median level of growth. It is projecting an increase in the population of the Shire of 37% between 2016 and 2031 (KI2).

Figure 2.6 includes preliminary projections for the relevant urban localities of Boyanup, Capel and Dalyellup up to 2031 (KI2).

Figure 2.5 – WA Tomorrow Population Projections for Shire of Capel 2011 to 2031

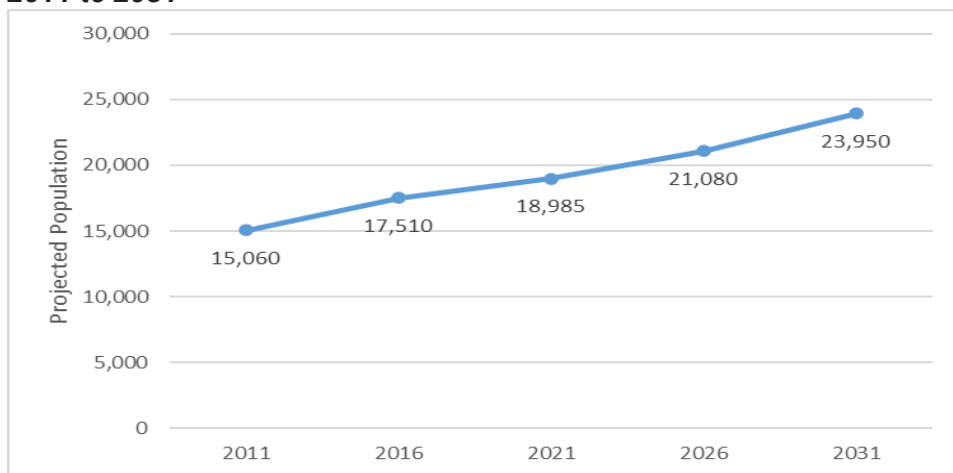


Figure 2.6 – Shire of Capel Population Projections for Selected Localities

Locality	2011	2016	2021	2026	2031
Boyanup	775	800	900	1,250	1,750
Capel	2,200	2,500	2,870	3,250	3,750
Dalyellup	7,100	9,000	10,500	12,000	13,000
Shire of Capel	15,060	17,510	18,985	21,080	23,950

Source: Band 'C' forecasts from WA Tomorrow (WAPC, 2019d).

Note: These projections reflect possible population outcomes only and may change over time.

These projections are based on anticipated development outcomes from structure plans and urban growth strategies adopted by the Shire and endorsed by the WA Planning Commission.

The Shire's assumptions relate to anticipated residential lot/dwelling growth and average occupancy of dwellings and include an adjustment to reflect historic development rates.

4.1.2 Socio-Economic Conditions

The Australian Bureau of Statistics (ABS) broadly defines relative socio-economic advantage and disadvantage in terms of people's access to material and social resources, and their ability to participate in society.

The Socio-Economic Indexes for Areas (SEIFA) is a suite of four indexes that have been created from social and economic Census information (ABS, 2019). Each index ranks geographic areas across Australia in terms of their relative socio-economic advantage and disadvantage. The four indexes each summarise a slightly different aspect of the socio-economic conditions in an area.

The four indexes in SEIFA 2016 are:

- Index of Relative Socio-economic Disadvantage (IRSD)
- Index of Relative Socio-economic Advantage and Disadvantage (IRSAD)
- Index of Economic Resources (IER)
- Index of Education and Occupation (IEO)

For each index, every geographic area in Australia receives a SEIFA score which gives a measure of how relatively advantaged or disadvantaged that area is compared with other areas in Australia.

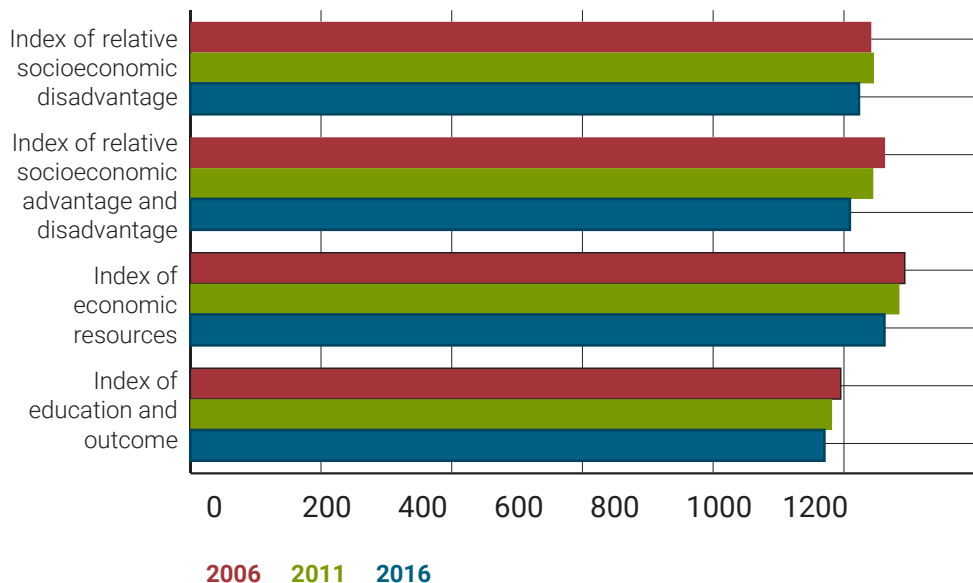
Areas with an index score lower than 1,000 provides general evidence of disadvantage relative to other areas.

Over the last ten years, the Shire of Capel has consistently had a SEIFA score of greater than 1,000 in three out of the four indexes (Figure 2.7), with people in the Shire generally having a relative disadvantage in terms of the Index of Education and Occupation.

This reflects a relatively lower level of educational achievement amongst the population of the Shire and employment in lower skilled jobs compared to other areas.

In addition, the data does show a trend of a consistent decline in socio-economic advantage over the period between 2006 and 2016. At the locality level, suburbs such as Gelorup, Stratham and Peppermint Grove Beach generally have a population that is less disadvantaged, with higher levels of economic resources, education and occupation than other localities.

Figure 2.7 – SEIFA Indexes of Socio-Economic Conditions 2006 to 2016



4.1.3 Housing

The Shire has a much higher proportion of family households compared to Australia (ABS, 2018a). This may reflect the popularity of the area with younger families building their first homes.

There is also a higher proportion of couple families with children, which again reflects the popularity of Dalyellup with young families. The Shire has a lower proportion of one parent families in comparison to the national picture. The regional preference for larger lots and larger detached dwelling types compared to the diversity of housing in cities may partly explain the lower proportions of lone person households and group households in the Shire.

Figure 2.8 - Household Composition 2016

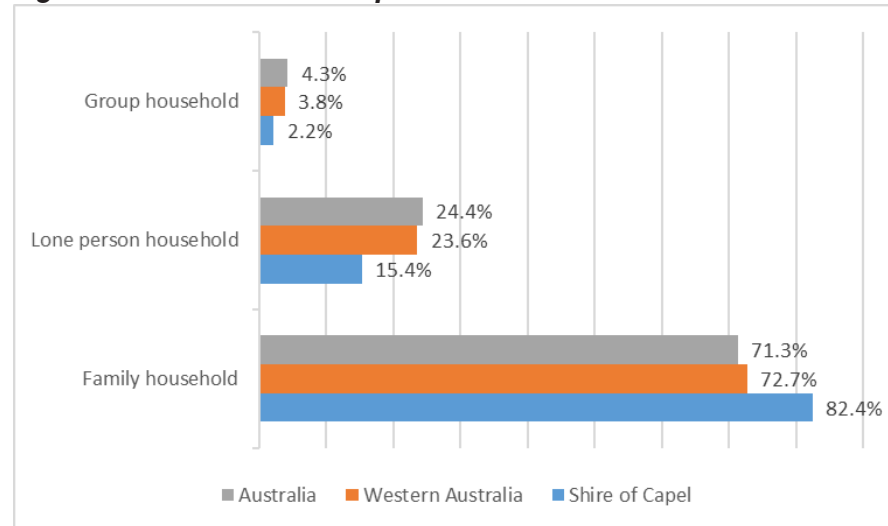
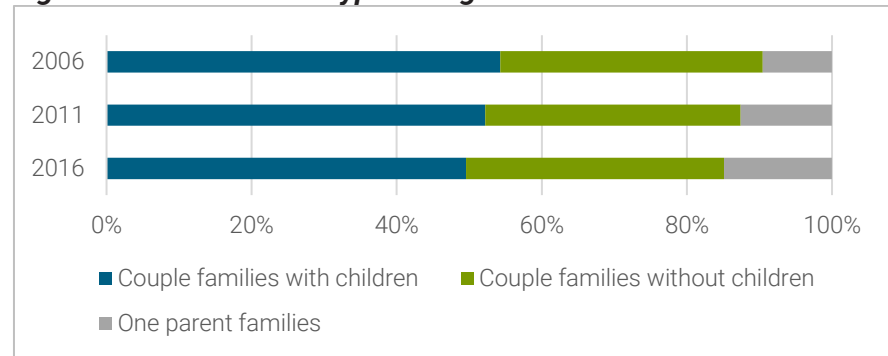


Figure 2.9 – Household Type Change 2006 to 2016



There was a total of 6,650 dwellings in the Shire according to the 2016 Census. Approximately 12% of dwellings were vacant, up from 11% in 2011. This compares to 13.3% in WA and 11.2% nationally.

The occupancy rate across all dwellings in the Shire was 2.8 persons/dwelling and 2.6 in Australia. The rate has decreased significantly since 1986 when the Shire's occupancy rate was approximately 3.5.

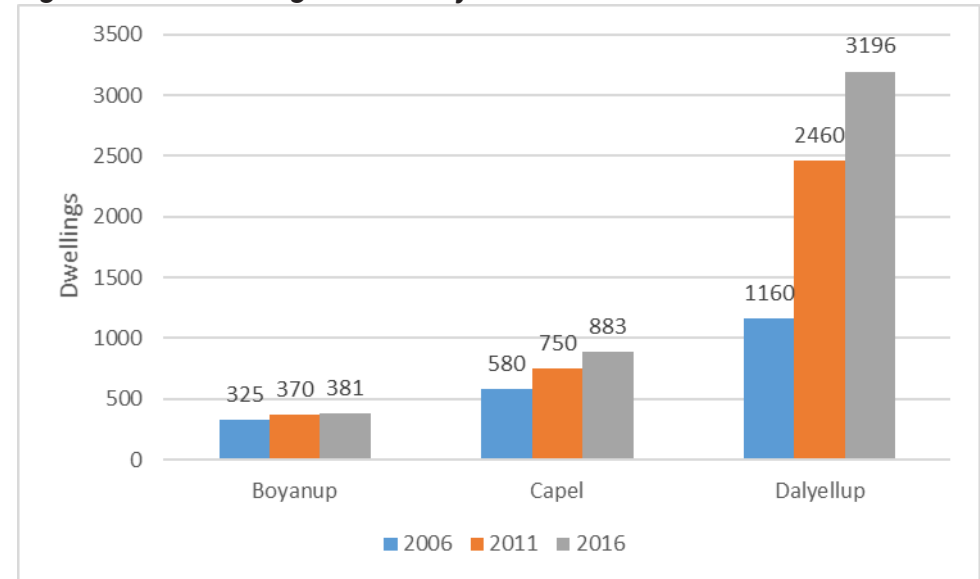
The data indicates that an average of 223 private dwellings have been constructed in the Shire each year between 2006 and 2016, with over 1,300 constructed between 2011 and 2016.

While the housing stock in the Shire is dominated by detached properties (95%), there has been a significant increase in semi-detached, row or terrace house, etc. since 2011 through the development of small, 'cottage' lots in Dalyellup. There has also been an increase in apartments, again associated with developments in Dalyellup.

Figure 2.10 – Shire of Capel Dwelling Characteristics 2006 to 2016

Description	Dwellings	%	Dwellings	%	Dwellings	%
Occupied private dwellings	3347	87.9	4652	88.9	5,579	88
Unoccupied private dwellings	457	12.1	583	11.1	760	12
Separate house	3279	98	4587	98.6	5,293	94.9
Semi-detached, row or terrace house, etc.	14	0.4	14	0.3	138	2.5
Flat or apartment	23	0.7	33	0.7	119	2.1
Other dwelling	31	0.9	15	0.3	15	0.3

Figure 2.11 – Dwelling Numbers by Selected Localities 2006 to 2016



4.1.4 Settlement and Development

Future population growth in the Shire will continue to be driven by urban development in Dalyellup, Capel and Boyanup. Peppermint Grove Beach, Gelorup and various rural residential areas also have some capacity for additional subdivision and development of housing on currently vacant lots. This would be consistent with the current settlement hierarchy in the Shire as set out in Figure 2.12 below (KI1-KI4).

Figure 2.12 Settlement Hierarchy

Status	Location	Growth potential (total population)	Growth constraints	Key Drivers
District Centre	Dalyellup	High (up to 16,000)	Dalyellup already serviced with urban utilities.	Focus of regional administrative & commercial services and economic growth.
Town	Capel	High (up to 7,000)	Upgrading and extension of services e.g. water supply & waste water treatment (WWT); Iluka industry site.	Administrative centre for Shire & Iluka Resources. Capel town centre & LIA. Residential expansion.
Town	Boyanup	High (up to 6,000)	Upgrading and extension of services e.g. WWT; timing of the Bypass; SW Hwy traffic management; relocation of saleyards; 2nd public school; groundwater clearances and risks of site inundation.	Growing community relying on Bunbury for most services. Residential expansion, enterprise park.
Coastal	Peppermint Grove Beach	Low (1,000)	Upgrading of water supply; no WWT; wetlands; bushfire, road access (single access only); groundwater clearances and risks of site inundation.	Modest residential and holiday role.

The estimated lot yields in Figures 2.13, 2.14, 2.15 and 2.16 are a guide only. Ultimate development densities to be determined on individual merit based on a consideration of the estimated lot yield for the development area, the characteristics of the land and the issues affecting development/subdivision.

Figure 2.13 indicates there is potential for 1,110 residential lots in Boyanup, including around 700 additional lots in the next 15 years. This scenario is based on an allowance for infill of existing urban areas in the town, currently approved developments such as Meadowbrook aged 'lifestyle village' and the partial development of the Short-Term and Medium-Term Development Areas identified in the Boyanup Townsite Strategy (SoC, 2010) and Boyanup East Structure Plan (TME, 2017) (SP2).

Figure 2.13 does not take account of the identified Long Term Development Areas in the Townsite Strategy as it is considered that these won't be developed in the next 15 years (that is, within the plan period) and so are not included in the LPS at this stage.

Figure 2.13 – Boyanup Townsite Potential Lot Yield

Year	Category	Lots
2018	Developed lots	410
2023	Short term urban	100
2033	Medium term urban + urban deferred	600
Total		1,110

There were estimated to be 980 residential lots in the Capel locality in June 2018. Estimating future lot production relies on the data prepared for the Capel Townsite Strategy (SoC, 2008) which identifies substantial urban growth areas.

The future additional lot yield potential is estimated in Figure 2.14 at around 500 over the next 15 years. This scenario is based on an allowance for infill of existing urban areas in the town, currently approved developments and the partial development of the Short-Term and Medium-Term Development Areas identified in the Capel Townsite Strategy and South East Capel Structure Plan (TME, 2014b) (SP3). Figure 2.14 does not take account of the identified Long Term Development Areas in the Townsite Strategy as it is considered that these won't be developed in the next 15 years (that is, within the plan period) and so are not included in the LPS at this stage.

Figure 2.14 – Capel Townsite Potential Lot Yield

Year	Category	Lots
2018	Developed lots	980
2023	Short term urban	100
2033	Medium term urban + urban deferred	400
Total		1,480

Residential growth in Dalyellup indicates a total of around 5,600 residential lots could be developed by 2033. This can be achieved through the development of the remainder of the Dalyellup Beach (TME, 2015) and Dalyellup East (TME, 2014a) Local Structure Plan areas, along with the development of a substantial part of the Dalyellup South Structure Plan area (LB Planning, 2018) (SP4).

Figure 2.15 – Dalyellup Potential Lot Yield

Year	Category	Lots
2018	Developed lots	3,240
2023	Short term urban	1,100
2033	Medium term urban	1,300
Total		5,640

The residential potential of all these localities can be realized through the specific Development Areas identified in Figure 2.16 below

Figure 2.16 - Residential Development Areas

Development Area	Estimated Lot Yield			Strategic Planning	Development Issues	
	Land Area (Ha)	Short Term (0-5)	Medium Term (5-15)			Long Term (15+)
Infill Allowance	-	20	80	168	Boyanup Townsite Strategy - Precincts 1, 2 & 3 GBRS Urban LPS8 Residential / Mixed Use Residential	Market demand; storm water / wastewater management
B1: East Boyanup	386.6	50	400	1,017	Boyanup Townsite Strategy - ST1/ST3/MT3 Boyanup East Local Structure Plan GBRS Urban / Urban Deferred LPS Strategic Plan – SP2 LPS8 Urban Development;	Staging of subdivision; Boyanup-Picton Road intersection; Buffer to railway reserve; bushfire, seasonal inundation, drainage and wastewater management
B2: Salter Road, Boyanup	25.5	10	70	-	Boyanup Townsite Strategy – ST2 GBRS Urban LPS Strategic Plan – SP2 LPS8 Residential No Structure Plan	Staging of subdivision; Contamination; bushfire.
B3: South Western Highway, Boyanup	24.8	20	50	110	Boyanup Townsite Strategy - ST/MT1; GBRS Rural; LPS Strategic Plan – SP2 LPS8 Rural; No Structure Plan;	Staging of subdivision; Buffer to regional road / railwayreserve; Preston River interface.
Boyanup Total	436.9	100	600	1,295	Boyanup Total Estimated Lot Yield = 1,995	

Development Area	Estimated Lot Yield			Strategic Planning	Development Issues	
	Land Area (Ha)	Short Term (0-5)	Medium Term (5-15)			Long Term (15+)
Infill Allowance	-	30	50	-	Capel Townsite Strategy - Precincts 1, 2, 3, 4 & 5 GBRS Urban LPS Strategic Plan – SP3 LPS8 Residential / Mixed Use Residential	Market demand; Infrastructure capacity – deep sewer north of the Capel River
C1: Maitland Road, Capel	27.0	-	70	140	Capel Townsite Strategy – ST1 GBRS Urban Deferred LPS Strategic Plan – SP3 LPS8 Urban Development No Structure Plan	Bussell Highway buffer; Reticulated sewerage; Staging of subdivision / infrastructure; Capel River foreshore; Drainage.
C2: Weld Road / East Road, Capel	53.3	20	50	80	Capel Townsite Strategy – ST2 GBRS Urban Deferred LPS Strategic Plan – SP3 LPS8 Urban Development No Structure Plan	Residential/rural interface; wastewater management; bushfire; Staging of subdivision; road upgrades; Drainage; Remnant vegetation; Primary school provision.
C3: Capel Drive, Capel	18.0	20	70	-	Capel Townsite Strategy – MT1 GBRS Urban Deferred LPS Strategic Plan – SP3 LPS8 Urban Development No Structure Plan	Bussell Highway buffer; Staging of subdivision; Capel River foreshore; Drainage.
C4: South East Capel	101.8	30	160	466	Capel Townsite Strategy – MT2 GBRS Urban / Urban Deferred LPS Strategic Plan – SP3 LPS8 Urban Development / Priority Agriculture South East Capel Local Structure Plan	Staging of subdivision; Capel River foreshore; Priority Agriculture buffer; bushfire; seasonal inundation and drainage.

Development Area	Estimated Lot Yield			Strategic Planning	Development Issues	
	Land Area (Ha)	Short Term (0-5)	Medium Term (5-15)			Long Term (15+)
C5: Jenkin Road, Capel	47.0	-	60	90	Capel Townsite Strategy – LT1 GBRS Industrial / Urban / Urban Deferred LPS Strategic Plan – SP3 LPS8 Industry / Residential Rural No Structure Plan;	Staging of subdivision; Contamination; Reticulated Sewer; Railway Reserve; bushfire.
Capel Total	247.1	110	480	776	Capel Total Estimated Lot Yield = 1,366	
Infill Allowance	-	376	13	-	GBRS Urban LPS8 Residential / Mixed Use Residential Dalyellup Beach Estate / Dalyellup East LSP; Dalyellup District Centre Activity Centre Plan	Market demand; Infrastructure capacity
D1: Dalyellup Greenpatch	22.5	-	231	-	GBRS Urban LPS Strategic Plan – SP4 LPS8 Urban Development Dalyellup Beach Local Structure Plan Draft Greenpatch Local Structure Plan	Wastewater Treatment Plant odour buffer; Contamination; Bushfire.
D2: Dalyellup Surf Club Precinct	21.9	100	43	-	GBRS Urban LPS Strategic Plan – SP4 LPS8 Urban Development Dalyellup Beach Local Structure Plan	Bushfire; Coastal processes.
D3: Dalyellup South	89.6	450	629	37	GBRS Urban LPS Strategic Plan – SP4 LPS8 Urban Development Dalyellup South Local Structure Plan	Staging of subdivision; bushfire; Regional Open Space interface.

Development Area	Estimated Lot Yield				Strategic Planning	Development Issues
	Land Area (Ha)	Short Term (0-5)	Medium Term (5-15)	Long Term (15+)		
D4: Wake Drive, Dalyellup	26.4	-	169	-	GBRS Urban LPS Strategic Plan – SP4 LPS8 Urban Development Dalyellup East Local Structure Plan	Staging of subdivision; Bushfire; Regional open space interface; Bussell Highway buffer.
D5: Parade Road, Dalyellup	29.6	174	215	-	GBRS Urban LPS Strategic Plan – SP4 LPS8 Urban Development Dalyellup East Local Structure Plan	Staging of subdivision; Regional open space interface; Bussell Highway buffer.
Dalyellup Total	190	1,100	1,300	37	Dalyellup Total Estimated Lot Yield = 2,437	
Grand Total	874	1,310	2,380	2,108	Grand Total Estimated Lot Yield = 5,798	

4.1.5 Heritage

Various sites throughout the Shire are identified as having heritage value by the Department of Aboriginal Affairs, the Heritage Council of Western Australia and the local government.

In Western Australia, the Aboriginal Heritage Act 1972 protects places and objects customarily used by, or traditional to, the original inhabitants of Australia. A register of such places and objects is maintained under the Act, however, all sites are protected under the Act whether they have been entered on the register or not.

In Western Australia, the Department of Planning, Lands and Heritage manages the online Aboriginal Heritage Inquiry System, which identifies any registered indigenous heritage sites within the vicinity of the search area. The Department of Planning, Lands and Heritage have advised that there are 9 known Registered Aboriginal Heritage Sites within the Shire of Capel (DAA, 2018) (K15). These sites of Aboriginal heritage are detailed in Map B1.8.

The State Register of Heritage Places is established by the Heritage Act 2018 to ensure that places are recognised for their value and importance to the State, and to promote their conservation into the future.

The Register is managed by the Heritage Council of Western Australia with the assistance of the Department of Planning, Lands and Heritage. Entry in the State Register means that any changes or works proposed for the place need to be referred, usually by the responsible local government, to the Heritage Council for advice.

The Shire currently has 11 items on the State Register of Heritage Places (SHO, 2018). These are detailed on Map B1.9. Under Clause 108 of the Heritage Act 2018, the Shire may prepare a Local Heritage Survey. This is a list of buildings, objects, and sites the Shire believes are, or may become, of local cultural heritage significance.

A place in the Local Heritage Survey provides recognition of its heritage importance; however, these places do not have legal protection unless they are on a local Heritage List, in the Local Planning Scheme or they are listed in a State, National or Commonwealth register (e.g.: the State Register of Heritage Places).

The Shire has a Heritage List (SoC, 2018b) that has been prepared in line with the 2015 Regulations.

The Shire of Capel Heritage List contains 28 Local Heritage Places (in addition to the 11 places listed on the State Register). These places have been assessed as having considerable significance to the local government area (K16) and are detailed on Map B1.9.

4.2 Environment

The maps in Appendix B3 provide an overview of the Shire's natural environment.

4.2.1 Physical Environment

The Shire is situated on the Swan Coastal Plain and the Blackwood Plateau geographic areas (Map B3.1). The Swan Coastal Plain is a low lying, level to gently undulating formation of marine, alluvial and aeolian sediments. It generally comprises relatively infertile, deep sandy soils along with coastal sand dunes, river estuaries, and a number of wetlands separated from the sea by dunes (SoC, 1999).

The Blackwood Plateau is a moderately elevated formation of laterised rocks in the south east of the Shire. The Whicher Scarp forms the boundary between the Blackwood Plateau and the Swan Coastal Plain, with elevations of up to 180 metres in the south east of the Shire.

The Shire experiences a Mediterranean climate with hot, dry summers and mild, wet winters (BoM, 2018) (Map B3.2). The Capel North weather station is situated 2 km from Capel and records all temperature and rainfall data (Bureau of Meteorology station number 009992). The average annual rainfall is 689 mm with a majority falling between April and November each year. Summers average three wet days a month from December to February while June to August record eighteen wet days each month on average. Winter temperatures vary from 5°C -26°C and from 14°C - 40°C in summer.

The local climate is undergoing a drying trend with significant changes in rainfall in Western Australia over the last 40 years. The South West is predicted to decrease in rainfall by 2-20% by 2030 (BoM, 2018). As the South West becomes drier, the demand on water resources will increase, which has the potential to cause economic impacts on water supply infrastructure across the region (KI9, KI10).

The Shire of Capel is situated in the Perth Basin, a deep linear trough of sedimentary and minor volcanic rocks and recent sediments that lies west of the Darling Fault and extends over 1000 kilometres from the South Coast to north of Kalbarri. The Perth Basin rocks that underlie the coastal areas of the Shire of Capel (Map B3.3) comprise the Sue Coal Measures, Donnybrook Sandstone, Cockleshell Gully Formation, Yaragadee Formation and, in places, the Bunbury Basalt. In the coastal areas, the abovementioned formations are overlain by Tamala Limestone. The limestone is predominantly aeolian, comprises limestone, calcarenite and sand with minor clay and shell beds, and attains a maximum thickness of 90 metres.

Overlying the Tamala limestone along most of the Shire's coastal areas are more recent calcareous dunes that are generally unconsolidated and form part of the current beach forms.

Nine major soil landscape units have been identified in the Shire (DAF, 2018) and these are summarised in Figure 2.24 and shown on Map B3.4.

The entire Shire of Capel is a proclaimed groundwater area, under the 'Rights in Water and Irrigation Act 1914'. The northern part of the Shire is in the Bunbury Groundwater Area and the southern part is in the Busselton-Capel Groundwater Area. The '*South West groundwater areas allocation plan, Department of Water, May 2009*' explains the Department's direction on the taking and use of groundwater resources in the Shire and South West groundwater areas. The allocation plan sets out where water is available, the policies for how all groundwater abstraction and use will be managed in the area, and how the ecological, social and economic needs for water have been considered. The plan also provides for water trading in fully allocated resources. Water will not be allocated above the allocation limits as set out in the plan. This means that to continue developing in the Shire, with limited water available, new and existing commercial water users will have to consider how they can use water more efficiently, use alternative supplies, find fit for purpose water or trade water (KI10).

Figure 2.24 - Soil and Landform units in the Shire of Capel

Landform Unit System	Description
Vasse	Poorly drained estuarine flats adjacent to the ocean. Tidal flat soil, saline wet soil and pale deep sand.
Spearwood	Sand dunes and plains. Yellow deep sands, pale deep sands and yellow/brown shallow sands
Pinjarra	Associated with the Capel River and adjoining areas, forms the primary land unit system to the north east. Poorly drained coastal plain with variable alluvial and aeolian soils including pale sands, clays, grey deep sandy duplexes, brown loamy earths.
Abba	Associated with Capel River and adjoining floodplain. Poorly drained flats with grey, deep sandy duplex and wet soil.
Bassendean	Extends either side of the Pinjarra system associated with the Capel River. Sand dunes and sand plains with pale deep sand, semi-wet and wet soil.
Forrestfield	Undulating foot slopes of Darling and Whicher Scarps. Consisting of duplex sandy gravels, pale deep sands and grey deep sandy duplexes.
Whicher Scarp	Low scarp and raised platform. Sandy gravel and pale deep sands, loamy gravel and non-saline wet soils
Blackwood Plateau	Lateric plateau. Sandy gravel, loamy gravel and deep sand
Goodwood Valley	Sandy gravel, loamy gravel and deep sand

Surface water drains from the Darling Scarp west across the Swan Coastal Plain into the ocean with major resources being the Capel and Preston Rivers and associated tributaries and wetlands (Map B3.5 and Map B3.6). Gynudup Brook, Tren Creek and Mullalyup Brook flow into Capel River before discharging directly into Geographe Bay (DoW, 2007b). Preston River drains the western and central portions of the Darling Range and flows directly into Leschenault Estuary through an artificially created river mouth. The Ludlow River is situated on the southern border of the Shire and flows into the Vasse-Wonnerup Estuary. The three main surface water catchment areas within the Shire are the Capel River, Preston River and Five Mile Brook Catchment.

The Capel River catchment covers an area of 653 km² and includes several tributaries. Capel River flows east through the Shires of Donnybrook-Balingup and Capel from the Darling Scarp into Geographe Bay and passes through Capel Townsite (DoW, 2008). Capel River is the largest and only non-ephemeral river in the Geographe Bay catchment (DWER, 2018b).

The Leschenault-Preston catchment includes Boyanup and the Preston River passes in a north westerly direction, flowing into the Leschenault Estuary. The catchment has been extensively modified to improve drainage from the coastal plain and is surrounded by cleared land.

Five Mile Brook is situated between Capel and Bunbury with a catchment area of 40 km². It is a seasonal waterway that drains directly into the ocean, with a Diversion Drain south of Dalyellup (Cossill & Webley, 2006).

The Vasse-Wonnerup Wetlands are located within the Shire of Busselton and extend into the Shire of Capel. The wetlands are included on the List of Wetlands of International Importance (Ramsar Convention) and provide a significant habitat for waterbirds.

The narrow strip of Tuart (*Eucalyptus gomphocephala*) forest that links Capel and Busselton is one of the more unique places in the south west of the State. The 2,050 hectare Tuart Forest National Park protects the largest remaining Tuart forest in the world (Map B3.7). It also has the tallest and largest specimens of Tuart on the Swan Coastal Plain (over 35 metres in height). The Park protects the largest remaining wild population of the endangered western ringtail possum. The forest is also home to brush-tail possums, phascogales, bush rats, kangaroos and the quenda (southern brown bandicoot).

4.2.2 Biodiversity

The South West of Western Australia (including the Shire of Capel) is identified as an internationally recognised 'Biodiversity Hotspot', one of only 35 in the world and two in Australia (CEPF, 2018). To qualify as a Global Biodiversity Hotspot, a region must have more than 1,500 endemic vascular plants (that is, plants found there and nowhere else on earth). Secondly, more than 70% of its original (pristine) native vegetation must have been lost or significantly degraded. Around 80% of the Swan Coastal Plain has been cleared for agricultural purposes and urban and rural development (K17, K18) (Map B3.8).

The Shire region is home to a number of conservation significant species (Map B3.9). The conservation status of flora and fauna is assessed under Commonwealth and State legislation. Under Commonwealth legislation, species are assessed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Under state legislation, species are assessed under the Biodiversity Conservation Act 2016 (BC Act).

Under these Acts, the assessment of the conservation status of a fauna species is based on its national extent and ranked according to its level of threat using the International Union for Conservation of Nature (IUCN) Red List categories and criteria. With regard to Critically Endangered, Endangered and Vulnerable flora/fauna, a 'Wildlife Conservation Notice (Specially Protected Flora/Fauna)' is published annually in the WA Government Gazette.

The Department of Biodiversity, Conservation and Attractions (DBCA) produces a supplementary list of priority flora/fauna. These species are of concern for one reason or another and generally need survey work to formally define their conservation status. These species have no special legislative protection, but their presence should be considered in any assessment of the conservation status of an area.

The Shire supports several terrestrial conservation significant species under the EPBC Act and BC Act and also non-legislative species (DBCA, 2018b). These are:

- 1 Critically Endangered fauna (*Pseudocheirus occidentalis* - western ringtail possum);
- 5 Endangered fauna (including *Calyptorhynchus baudinii* - Baudin's cockatoo; *Calyptorhynchus latirostris* - Carnaby's cockatoo);
- 7 Vulnerable fauna;
- 2 Conservation dependent fauna;
- 8 Fauna protected under international agreement;
- 4 Other specially protected fauna;
- 1 Priority 1 fauna, 2 Priority 3 fauna;
- 6 Priority 4 fauna.
- 7 Critically Endangered flora (including *Caladenia huegelii* – Grand Spider Orchid; *Drakaea elastica* - Glossy-leaved Hammer Orchid);
- 4 Endangered flora;
- 5 Vulnerable flora
- 9 Priority 1 flora;
- 10 Priority 2 flora;
- 25 Priority 3 flora; and
- 14 Priority 4 flora

Source: DBCA Nature Map Search 17/08/2018 based on 0km buffer around the Shire.

Ecological communities are defined as “naturally occurring biological assemblages that occur in a particular type of habitat” (Map B3.9). Threatened Ecological Communities (TECs) are ecological communities that have been assessed and assigned to one of four categories related to the status of the threat to the community, i.e. presumed totally destroyed, critically endangered, endangered, and vulnerable. TECs are formally listed under the EPBC Act and have legislative protection. TECs are also identified in Western Australia but do not have legislative protection. Even though TECs in WA have no special legislative protection, their presence should be considered in any assessment of the conservation status of an area.

The Department of Biodiversity, Conservation and Attractions produces a supplementary list of TECs called Priority Ecological Communities (PECs).

Under the EPBC Act, four TECs are identified in the Shire (DBCA, 2018a):

- Shrublands on southern Swan Coastal Plain ironstones;
- Claypans of the Swan Coastal Plain;
- Banksia Woodlands of the Swan Coastal Plain; and
- Tuart (*Eucalyptus gomphocephala*) Woodlands and Forests of the Swan Coastal Plain.

There are ten PECs identified within the Shire (DBCA, 2017), mostly associated with the Banksia Woodlands of the Swan Coastal Plain TEC or the Whicher Scarp.

Ecological linkages are likely to become an increasingly important component of efforts to reduce the loss of biological diversity over time, particularly given the expected impacts of climate change. The South West Ecological Linkages report (WALGA, 2009) identified a network of regional scale ecological linkages throughout the south west and developed mechanisms to support their consideration in environmental and planning decision making.

A number of ecological linkages have been identified within Capel, generally associated with the coast, wetlands, watercourses and remnant vegetation (Map B3.10).

4.2.3 Natural Resources

There are significant mineral deposits in the Shire along with economically useful raw materials such as sand, gravel and rock aggregate (Map B3.11). These are identified through the Greater Bunbury Region Scheme Strategic Minerals and Basic Raw Materials Resource Policy (WAPC, 2018c) which requires resources to be identified in local planning strategies and schemes in order to facilitate the timely extraction of resources; ensure that present and future extraction of basic raw materials and mineral resources are not prejudiced; and minimise the impact of extraction on surrounding land uses (KI11).

In particular, there is active extraction of sand, gravel and basalt being undertaken in the Shire, particularly in the north around Gelorup and Dalyellup and in the south east of the Shire around Gwindinup.

Significant reserves of mineral sands occur from Wagerup in the north, through the Shire of Capel to Dunsborough along the base of the Darling and Whicher escarpments (WAPC, 2012b). Mineral sands mining in the Shire began in the 1960s and processing provides synthetic rutile, zircon and titanium dioxide minerals to a world market. In 2016/17, Western Australia’s mineral sands sector sold almost 1.4 million tonnes of material valued at around \$554 million.

Iluka Resources Limited is a major participant in the global mineral sands sector and is the world’s largest producer of zircon, with a market share of approximately one third. It is the second largest producer of titanium dioxide minerals and, within this sector, the largest global producer of the higher value titanium dioxide products of rutile and synthetic rutile (upgraded ilmenite). In 2017, around 600 people were employed by Iluka in its Capel group (SoC, 2018e).

4.2.4 Coastal Areas

The Shire of Capel has an attractive and popular coastal environment comprising about 28 kilometres of continuous sandy beaches (Map B3.15). The Shire's coastline stretches between the City of Bunbury in the north to the City of Busselton in the south and forms, in part, the northern sector of Geographe Bay.

The Capel coast is predominantly sand overlying and abutting various relict geological features, principally Tamala limestone formations that mark coastal positions from eras of different mean sea level. The geological framework supports a series of sand formations, including parallel dune fields, parabolic dunes and linear barrier dune systems. Sediment sequences from these dunes and adjacent landforms also indicate coastal response to varying sea level, albeit over a much shorter time frame than the geological history (Belton-Taylforth, 2005).

Offshore, the margin of the continental shelf is much straighter than the shoreline, aligned north-northeast. This creates a 100 kilometre wide continental margin over Geographe Bay. Sediments across the inner shelf are mainly calcareous, of various depths overlying limestone pavement, but typically shallow.

The modern coast is largely a result of a rapid sea level rise over the late Holocene, which peaked 1-2m above present day levels approximately 6,000 years before present. This process swept huge volumes of sand from the inner shelf plain landward, forming coastal barrier dunes. Subsequent coastal evolution has occurred through aeolian and marine processes as sea levels gradually fell to present day.

The change from rapidly rising to gradually falling sea levels produced a significant change in the southern part of Geographe Bay, by supporting a sand feed from the Capes coast, presently evident as the Dunn Bay Bar near Quindalup, and other smaller onshore feeds.

The sand feeds have historically provided net accretion along the Busselton coast, supporting the use of groynes in local erosion management.

There is limited influence of rivers on the coastal sediments, with the largest rivers debouching into coastal lagoons and estuaries, rather than forming coastal deltas, such as the Vasse Wonnerup and Broadwater wetlands and coastal wetlands near Peppermint Grove Beach.

Estuarine foreshore dynamics are typically more complex than those of the coast due to more mobile sediments, the increased role of currents, significant local-scale variations in wave climate, exaggerated scale of cross-shore features and greater interactions with benthic or riparian vegetation.

The Shire of Capel has experienced a significant increase in both permanent and seasonal populations over the last 20 years, with coastal urban development at Peppermint Grove Beach and Dalyellup Beach.

Coastal hazards can result in property damage, loss of life and / or environmental degradation. The impacts are generally greatest where the shoreline has been modified and developed for infrastructure or settlements. The most significant hazards include:

- Erosion – occurs when winds, waves and coastal currents act to shift sediments away from an area of the shore, often during a storm. In most locations this is a short-term process and the shore gradually regains sediment
- Inundation – during a storm, low atmospheric pressure and onshore winds can cause storm surge and extreme wave heights along the coast. When these coincide with high tide, inundation may result and
- Landform mobility (dunes and estuary entrance) – is influenced by a range of factors including stress due to vehicles or pedestrians (through damage to vegetation), coastal erosion, drought, bushfires and man-made activities, disturbances and modifications to dunes and estuary entrance.

There are numerous and significant potential coastal impacts and risks associated with climate change, such as:

- Under a high-emissions scenario, a sea-level rise of up to a metre or more by the end of the century is plausible
- Sea-level rise will not stabilise by 2100. Regardless of reductions in greenhouse gas emissions, sea level will continue to rise for centuries; an eventual rise of several metres is possible. This has implications for decisions taken now on the 'footprint' of our cities
- Rising sea levels combined with storm surge is likely to cause accelerated erosion and increased risk of inundation. For settlements and infrastructure this is likely to result in damage to and loss of infrastructure. For ecosystems, sea level rise may lead to loss of habitat and salinization of soils may cause changes to the distribution of plants and animals
- The switch from generally accreting beaches to a receding coastline is a key threshold for coastal management and is not well understood
- Changes in movement of sand will potentially have impacts on the natural and built environment
- Reduction in annual and seasonal rainfall will impact the natural environment, including decline in fresh water entering estuarine systems and
- More intense rainfall events will increase flood risk and have potential emergency management implications.

These impacts and risks will affect Capel's natural and built environments and may have further consequences on the community, which could include; temporary coastal flooding, permanent marine inundation, increased heat-related health issues, changes in mosquito activity and subsequent impact on residents and economic impacts on those industries which rely on our waterways and coast, such as tourism and accommodation businesses and commercial fishing (PNP, 2018).

The Shire is part of the Peron Naturaliste Partnership (PNP), an incorporated collective group of nine local governments between Cape Peron and Cape Naturaliste – Bunbury, Busselton, Capel, Dardanup, Harvey, Mandurah, Murray, Rockingham and Waroona. Through the PNP, the Shire is working with government, coastal communities and interest groups to look at adaptation decision-making pathways to best balance competing economic interests with social values, ecosystem services and environmental benefit.

By taking adaptive measures, a more resilient community can better deal with current and future risks associated with coastal climate change.

To facilitate this, the Shire intends to undertake a Coastal Hazard Risk Management and Adaptation Plan (CHRMAP) to inform the first review of this Local Planning Strategy.

The first stage of the report will highlight the coastal hazards which are likely to affect the Capel coast – such as erosion, flooding and sand drift and also the more unlikely extreme events. The second stage will consider a range of adaptation options to manage the hazards (KI12).

4.2.5 Rural Land

The Shire is still largely characterised by its earliest industries, forestry and broad acre farming. Other agriculture and rural industries such as viticulture, orchards, dairy processing and blue gum plantations have also been established (SoC, 2018e) (Map B3.12).

Declining farmer numbers and labour sources at peak harvest times are beginning to impact on agricultural production in the region. Competition for water resources resulting from increased water needs and declining rainfall is also a significant issue for agriculture. Land use change within the region is leading to some alienation of prime agricultural land primarily due to ongoing residential development or the need for buffers to non-agricultural land uses to address potential land use conflict (KI17).

The original Capel Dairy, one of Western Australia's first industries, was established in 1920 in the Capel River valley. Milk from the South West is primarily processed as fluid milk for the domestic market in a number of South West dairy plants. Some branded dairy products are also produced. The range includes a variety of styles of milk, traditional butter, cheese, yoghurt, skim milk and whey powder. The South West is relatively isolated in agricultural terms, helping to ensure that the local dairy cows are disease free. This is a factor that is highly regarded by statutory agencies as well as being a distinct advantage in terms of international marketing.

Livestock is grazed extensively in the Shire for meat products. The South West region is Western Australia's leading supplier of beef cattle. Processing of prime beef for export occurs at an abattoir near Harvey. Live cattle is exported to the European Union, Asia, and the Middle East. The Boyanup stock sale yard is located in the Boyanup urban area. Investigations are progressing to determine an alternative location for a stock sale facility to service the region.

Most vegetables grown in the region are sold to the Perth market, but increasingly a share is exported to South East Asia. Varieties include potatoes, carrots, broccoli, onions, cauliflowers, pumpkin, beans, lettuce, capsicum, chilies, zucchini and cabbage. Orchard fruits and grapes dominate fruit production in the region. Varieties include table and wine grapes, apples, oranges, plums, prunes, pears, avocados, nectarines, peaches, cherries, apricots and berries.

The South West is the largest wine producing region in Western Australia and is considered a world-class producer of premium wine. Wine regions include Margaret River, Manjimup/Pemberton, Blackwood Valley and Geographe. Approximately 14% of South West wine production originates from the Geographe appellation which includes producers such as Capel Vale. Viticulture production in the Geographe region is increasing every year, and it had an estimated value of \$8 million in 2012, with 6,700 tonnes of grapes crushed.

Commercial forestry activity for timber products is limited in the Shire, due mainly to the majority of soils being largely unsuited to forestry. Where land may be suitable, for example in the Spearwood soils and on the Blackwood Plateau, other uses such as conservation (State Forests/National Parks), rural and urban residential tend to prevail.

A significant amount of rural land in the Shire has been identified as Priority Agricultural Land within the Greater Bunbury Region Scheme Priority Agricultural Land Policy (WAPC, 2017b). This policy aims to protect these areas by preventing development that may adversely affect their use for agricultural production now and in the future. The policy seeks to:

- identify land considered to be of State or regional significance
- protect the agricultural base of the Greater Bunbury area from the unplanned loss of high-quality productive agricultural land due to subdivision and/or permanent changes of land use
- encourage and support development of ecologically sustainable, nutrient-wise agriculture and
- minimise land use conflicts between agricultural activities and other land uses within, adjacent to, or within close proximity to the identified areas.

The majority of rural land to the south of a line between Stratham Park, Boyanup Road West and Boyanup and west of the Preston River and Whicher Scarp is identified as Priority Agricultural Land in the GBRS (Map B3.13). Therefore, this land is to be protected for dairy, grazing and horticultural uses in this Local Planning Strategy and Scheme 8.

For all of the above reasons, and in accordance with State Planning Policy SPP2.5, there is a presumption against the further subdivision of rural land and the development of residential land uses. This is necessary in order to preserve rural character and maintain the use of the land for predominantly agricultural purposes (KI13; KI14).

4.2.6 Natural Hazards

Future planning of the Shire needs to take account of risks associated with natural hazards such as bushfire, flooding and storm events.

State Planning Policy 3.7 – Planning in Bushfire Prone Areas (WAPC, 2015b) provides a policy framework to manage risk of bushfire in land use planning and development. It is supported by Guidelines for Planning in Bushfire Prone Areas (WAPC, 2017c) (WAPC, 2018a), and the deemed provisions of all Western Australian local planning schemes (set out in the *Planning and Development (Local Planning Schemes) Regulations 2015*).

The majority of the Shire is located within a mapped, designated bushfire prone area (Map B3.14) (DFES, 2018) (KI15).

A bushfire hazard level assessment (Lush Fire & Planning, 2021) has been undertaken to support and inform the preparation of the Shire's local planning strategy (Appendix C). This is focused on the two townsites of Boyanup and Capel, which, along with Dalyellup where bushfire hazard has been considered through various local structure plans, represent the main areas within the Shire where development and change will occur.

Both townsites have significant areas of bushland with an extreme bushfire hazard level. This is not unusual in many country towns where the surrounding farm land is generally cleared creating an increased desire to maintain and protect bushland areas. There is a recognised desire for people to live in closer contact with natural landscape, particularly on the urban fringe and rural residential areas.

The Bushfire Hazard Level Assessment made a number of recommendations, including:

- That any structure planning for the proposed policy areas must address bushfire management issues and the co-ordination of bushfire management measures
- That district and local ecological corridors and environmental buffer areas should be identified or referenced in the local planning strategy and form part of any detailed bushfire hazard assessment
- That any proposed subdivision is serviced by dual public road access to two different destinations
- That any structure plan or Scheme review consider the location, zoning permissibility and development criteria for vulnerable and high-risk land uses
- That consideration be given to developing strategic firebreaks / low fuel zones along specific road reserves so as to provide a 20m plus separation between vegetation cells while still allowing for ecological functions.

Local governments have a responsibility to minimise the potential for flood damage resulting from decisions relating to land use and development on defined river floodplains. Additionally, landowners have the right to expect that adjacent land use and development will not increase the risk or impact from major river flooding on their lives and properties.

The Greater Bunbury Region Scheme Floodplain Management Policy (WAPC, 2017a) identifies floodplains and land within the 1 per cent AEP (annual exceedance probability) of flooding. This includes the Capel River through the Capel Townsite and part of the Preston River.

Other parts of the Capel and Preston Rivers, other watercourses and seasonal wetland areas are not covered by the GBRS policy but have been identified through and considered in the development of this Local Planning Strategy and Scheme 8, in terms of their risk of flooding (KI16) (Map B3.15).

Acid sulfate soils (ASS) occur naturally in Western Australia and are harmless when left in a waterlogged, undisturbed environment.

However, when exposed to air, through drainage or excavation, the iron sulfides in the soils react with oxygen and water to produce iron compounds and sulfuric acid.

This acid can release other substances, including heavy metals, from the soil and into the surrounding environment and waterways.

Activities with the potential to disturb ASS must be managed carefully to avoid serious environmental harm.

Map B3.16 indicates a majority of the Shire has a “moderate to low ASS disturbance risk” (<3 m from the surface) (DWER, 2018a). The Capel River, Preston River and adjoining riparian vegetation zones are classified as having “high to moderate ASS disturbance risk” (<3 m from the surface). A series of waterlogged locations along the coastline, including the Stirling Wetlands, are also classified as having a high to moderate risk.

4.3 Economy

The maps in Appendix B2 provide an overview of the Shire’s economy.

4.3.1 Employment

The construction, manufacturing, retail trade, education and health care industries provide the main jobs for Shire residents. With the exception of some construction, education and mining, most people work outside of the Shire in larger centres such as Bunbury and Busselton (SoC, 2018e). Figure 2.17 summarises employment characteristics of employed persons in the Shire in 2016, compared to the nation as a whole (ABS, 2018a).

According to Figure 2.18, in 2016 the Shire had a similar level of employment compared to Australia, although a slightly lower proportion were employed full time, and more part time. The percentage unemployed was lower in the Shire than in the State of Western Australia.

The Shire has a very high percentage of technicians, tradespeople, machinery operators and labourers compared to Australia as a whole, possibly reflecting the mining, dairy and other similar industries in the Shire. The Shire also has lower proportions of administration workers, managers and professionals compared to the Australian population.

Figure 2.17 - Employment by Industry 2016

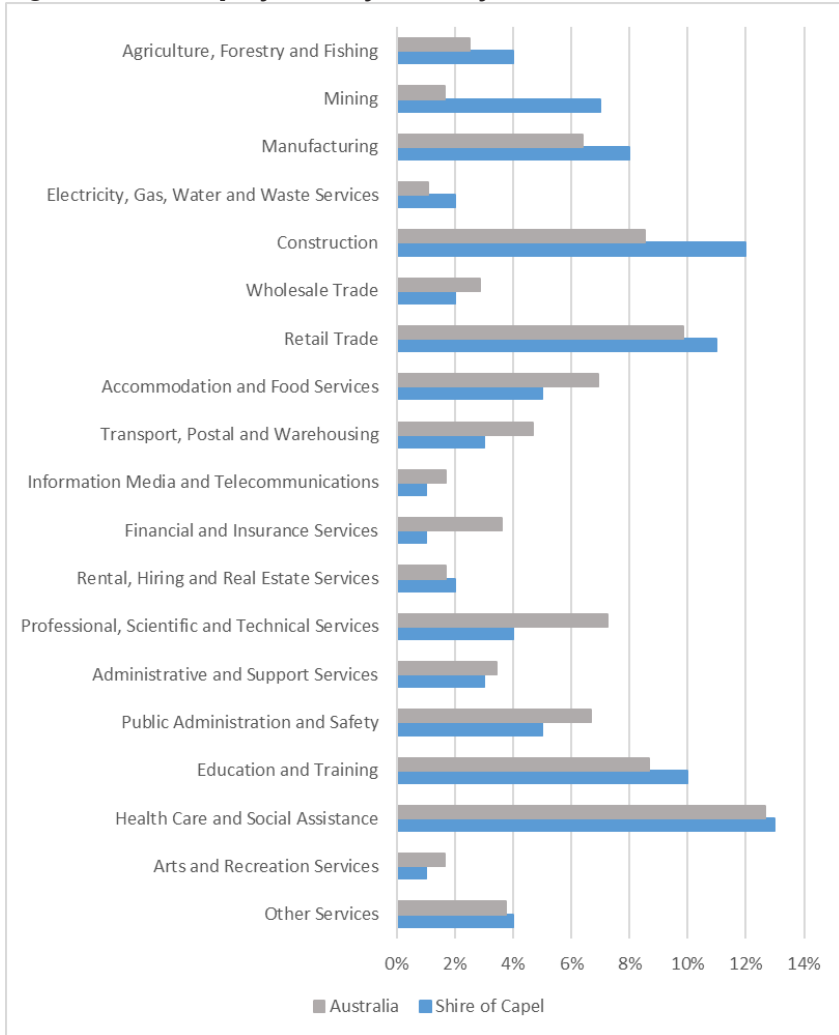


Figure 2.18 - Employment Status 2016

Description	Shire of Capel	Western Australia	Australia
Worked full-time	4,804 55.8%	57.0%	57.7%
Worked part-time	2,755 32.0%	30.0%	30.4%
Away from work	469 5.4%	5.2%	5.0%
Unemployed	582 6.8%	7.8%	6.9%
Total	8,610		

Figure 2.19 - Occupation 2016

Description	Dalyellup	Shire of Capel	Australia
Technicians/trades workers	17.6%	18.4%	13.5%
Labourers	8.7%	11.6%	9.5%
Machinery operators	8.7%	8.6%	6.3%
Professionals	19.2%	18.0%	22.2%
Admin. workers	11.4%	11.8%	13.6%
Managers	9.0%	10.4%	13.0%
Sales workers	10.3%	9.0%	9.4%
Community/personal service workers	11.8%	10.6%	10.8%

4.3.2 Industry

The Shire is still characterised by its earliest industries, forestry and broad acre farming. Other agriculture and rural industries such as viticulture, orchards, dairy processing and blue gum plantations have also been established.

Figure 2.20 indicates that the number of businesses in the Shire increased steadily between 2012 and 2017 (ABS, 2018b). The number of businesses with five or more employees increased by 11.7% between 2012 and 2017 according to ABS data while the number of smaller businesses increased by 28%.

Figure 2.20 - Number of Businesses

Shire of Capel	June 2012	June 2015	June 2016	June 2017
Number of non-employing businesses	703	710	723	782
Number of businesses with 1-4 employees	208	275	263	268
No. of businesses with 5 or more employees	94	84	94	105
Total number of businesses	1,005	1,069	1,080	1,155

Figure 2.21 highlights the number of businesses by industry in the Shire in 2012. Construction has by far the most businesses following by agriculture, forestry and fishing and real estate services.

Figure 2.21 - Number of Businesses by Industry 2017

Shire of Capel	June 2017
Agriculture, Forestry and Fishing	179
Mining	3
Manufacturing	34
Electricity, Gas, Water and Waste Services	3
Construction	280
Wholesale Trade	23
Retail Trade	42
Accommodation and Food Services	27
Transport, Postal and Warehousing	46
Information Media and Telecommunications	7
Financial and Insurance Services	66
Rental, Hiring and Real Estate Services	113
Professional, Scientific and Technical Services	90
Administrative and Support Services	37
Public Administration and Safety	0
Education and Training	21
Health Care and Social Assistance	71
Arts and Recreation Services	17
Other Services	47
Currently Unknown	9
Total	1,125

Figure 2.22 highlights the Gross Value Added (GVA) of the Shire and the South West Region by industry (REMPPLAN, 2018b).

Figure 2.22 - Value Added by Industry

Industry	South West		Shire of Capel	
	\$M	%	\$M	%
Rental, Hiring & Real Estate Services	1,770.9	15.2	123.3	20.2
Construction	1,202.0	10.3	70.5	11.6
Manufacturing	1,138.2	9.8	22.9	3.7
Health Care & Social Assistance	873.4	7.5	55.3	9.1
Agriculture, Forestry & Fishing	858.9	7.4	43.0	7.0
Mining	800.0	6.9	81.9	13.4
Education & Training	699.5	6.0	59.5	9.8
Retail Trade	673.7	5.8	31.4	5.1
Electricity, Gas, Water & Waste Services	494.6	4.3	4.6	0.8
Public Administration & Safety	477.9	4.1	18.7	3.1
Financial & Insurance Services	466.6	4.0	5.7	0.9
Accommodation & Food Services	438.0	3.8	14.0	2.3
Transport, Postal & Warehousing	370.6	3.2	11.6	1.9
Professional, Scientific & Technical Services	348.7	3.0	12.6	2.1
Administrative & Support Services	335.6	2.9	11.8	1.9
Other Services	244.0	2.1	28.6	4.7
Wholesale Trade	241.0	2.1	8.6	1.4
Information Media & Telecommunications	121.0	1.0	0.0	0.0
Arts & Recreation Services	77.3	0.7	6.4	1.1
Total	11,632.0	100.0	610.2	100.0

Value-Added data represents the marginal economic value that is added by each industry sector in a defined region. Value-Added by industry sector is the major element in the calculation of Gross Regional Product.

4.3.3 Commercial

Capel is the administrative and economic centre of the Shire (Map B2.2) however most commerce is conducted in Bunbury or Busselton due to their proximity and the availability of a wider range of services and land such as the Bunbury CBD, Homemaker Centre or in industrial areas around Davenport.

Boyanup has some local convenience retail and services along with some commercial facilities, however its proximity to Bunbury means that duplication of most services has not occurred at this time (KI20).

The Boyanup Townsite Strategy (SoC, 2010) identified an opportunity to develop a new Service Commercial – Enterprise Park to the south of the town centre between South Western Highway, Trigwell Road and the railway reserve. The purpose of this proposed Boyanup Enterprise Park is to provide for employment generating land uses within the town (KI23).

Capel Townsite has a post office, Bendigo Bank, IGA supermarket, the Shire administration office, and a number of specialist shops, cafes and other businesses, as well as a light industry area. Capel Light Industrial Area contains 47 separate lots used for a range of industrial, storage and commercial uses (KI20).

The Capel Townsite Strategy (SoC, 2008) identified the need to provide for the expansion of industrial and commercial facilities in the town to meet growing demand. This will be partly met through the identification of land to the south west of the existing Capel Light Industrial Area for future expansion subject to detailed structure planning to manage environmental, bushfire and access constraints (KI23).

The Dalyellup District Centre is currently being developed and this will provide significant retail, business and community services for the large population emerging in Dalyellup and Gelorup and will become the main activity centre in the Shire (KI19).

Current estimates for the retail core of the district centre indicate that ultimately there is a need for up to 20,000m² retail floorspace and the balance for commercial non-retail, consistent with the current provisions of TPS7 (TME, 2012). The proposed mix includes two supermarkets, a discount department store, a tavern and specialty shops.

Outside of the district retail core, there is planned provision for a mix of service commercial, leisure and restaurant uses (Dalyellup Business Precinct), along with mixed-use residential, a civic precinct and town square.

To date, development in the district centre has included one supermarket, around 20 individual shop units, a trampoline centre, child day care and two drive-through restaurants. However, commercial development of the District Centre has been slower than anticipated and it is considered that a review of the existing Dalyellup District Centre Outline Development Plan (TME, 2012) should be reviewed and updated as an activity centre plan to ensure the delivery of commercial development in the rest of the centre.

A summary of the main commercial development opportunities in the Shire is shown in Figure 2.23.

4.3.4 Tourism

The South West has significant native forests, established wine regions and a pristine coastline with some of the best beaches in Australia. The region's mild climate and diverse natural attractions draw more domestic and international visitors than any other part of regional Western Australia (SoC, 2018e) (Map B2.3).

The caravan park in Peppermint Grove Beach has recently reopened and is undergoing significant refurbishment and expansion with plans approved to replace the existing 54 caravan and camping sites with an additional 100 cabins, caravan and tent sites accommodating up to 400 people (KI24). Accommodation for tourists is also available at 'Tren Creek Chalets' near Capel and half a dozen 'bed and breakfast' establishments around the Shire. The full scale of private 'home stays' in the Shire is unknown, but research on Airbnb and Stayz, indicates there are around 50 properties available for shortstay accommodation in the shire, with the majority (around 30) in Peppermint Grove Beach (KI25, KI26).

A tourism precinct is currently proposed within the Dalyellup Beach

Estate Structure Plan area, with 7 hectares of land identified for a range of commercial, short-stay accommodation and community uses linked to its location next to the beach (KI24). However, the removal of tourism uses is being considered through an amendment to the Dalyellup Beach Structure Plan. With an international reputation as a producer of premium wines, opportunities for growth in wine tourism are emerging. Nature based holidays and eco-tourism are also emerging as areas with significant potential for growth. New attractions e.g. recreation trails will become potentially significant future contributors to tourism. Issues for tourism include the provision of caravan parks and other holiday accommodation, tourist information and road side rest areas. Improved public transport and connections to Busselton Regional Airport would also assist regional tourism outcomes in the long term.

Figure 2.23 - Commercial Development Areas

Development Area	Land Area (Ha)	Estimated Lot Yield			Strategic Planning	Development Issues
		Short Term (0-5)	Medium Term (5-15)	Long Term (15+)		
Infill Allowance	-	3	5	-	GBRS Urban LPS8 Commercial / Light Industrial	Market demand; Infrastructure capacity.
B4: Boyanup Enterprise Park	17.3	0	60	-	Boyanup Townsite Strategy - ST/MT2 GBRS Rural LPS Strategic Plan – SP2 LPS8 SCA1 – Development Area	Staging of subdivision; Buffer to regional road / railway reserve; Bushfire; Market demand;
C6: Capel LIA Expansion	26.6	0	30	-	Capel Townsite Strategy – MT3 GBRS Rural LPS Strategic Plan – SP3 LPS8 SCA1 – Development Area	Staging of subdivision; Buffer to regional road / railway reserve; Bushfire; EPP Wetland; Market demand;
D6: Dalyellup Business Precinct	4.0	7	3	-	GBRS Urban LPS Strategic Plan – SP4 LPS8 Service Commercial Dalyellup District Centre ACP	Staging of subdivision; Buffer to regional road reserve; Market demand;
Total	47.9	10	168	-		

4.4 Leadership

Direction 4 in the Shire's Strategic Community Plan relates to Leadership and ensuring open and transparent decision making.

Evidence from the Shire's latest community perceptions survey (Catalyse, 2017) indicates the Council is scoring below the Industry Standard in some areas, including in leadership, community vision, understanding of needs and explanation of the decisions it makes.

It is essential that community members understand the value that Council places in involving them in decision making, are prompted to become involved and continue that involvement. Educating the community about the decision-making process creates a greater understanding of the feedback process and reduces skepticism towards how feedback is used (KI27; KI28).

4.5 Infrastructure

The maps in Appendix B4 provide an overview of the Shire's strategic infrastructure.

4.5.1 Transport and Accessibility

The Shire of Capel is well located between Bunbury and Busselton to provide access to employment and services as well as regional airports, a port and strategic road infrastructure (Map B4.1). However, access is almost exclusively by private vehicles via the Bussell and South Western Highways along with regional roads such as Railway Road, Goodwood Road, etc. (KI29)

Airport facilities to service and promote the Shire and the region are provided within the Cities of Bunbury and Busselton.

The City of Busselton is upgrading the existing Airport facilities in preparation for air services to interstate destinations including Melbourne and Sydney and international destinations as far away as China (BMRRA, 2018). The development project works include:

- lengthening, widening and strengthening of the existing runway to facilitate B737/A320 jet aircraft operations
- four new aircraft parking aprons and connecting taxiways
- a new terminal building and entry statement that embodies the character of the South West region
- a new internal road network and parking facilities
- freight and commercial opportunities and
- a new general aviation precinct.

Bunbury Airport is located 8km south east of Bunbury CBD and is owned and operated by the City of Bunbury (CoB, 2018). The airports users include: General Aviation – approximately 70 hangars and 100 aircraft permanently based;

- two Pilot Training organisations; and
- Emergency Services – permanent RAC rescue helicopter base, seasonal Water Bomber base along with significant RFDS traffic.

Port facilities to service and promote trade within the Shire and region are provided within the City of Bunbury (BPA, 2018). The Port is a pivot point for worldwide distribution of products from the South West of Australia. Good rail and road links enable the Port to capitalise on cargo throughput and the strategic location provides a logical distribution point, which embraces mining, manufacturing, agricultural and pastoral areas. Trade grew to 16.7 million tonnes in 2017. A number of passenger vessels have made visits and the Port has the potential to become a container location. In July 2012, Southern Ports - Bunbury was granted \$1.5 million in funding and received approval to spend \$1.5 million of internal funds to commence the engineering design phase for the realignment of the Preston River.

This strategic step will ensure the Port's future development progresses in agreement with the Inner Harbour Structure Plan.

The proposed Bunbury Outer Ring Road (BORR) is in three sections with the southern section proposed between South Western Highway and Bussell Highway through the Shire of Capel (MRWA, 2018). Constructing the northern and southern sections of the BORR will further improve access to Bunbury Port. Travel times, freight efficiency and road safety will be enhanced, with regional traffic better separated from local movements. Access to existing and proposed industrial areas east of Bunbury will also be improved.

In May 2017, \$12.5 million of joint funding announced by the Australian and the State governments to complete the planning and project development for the unbuilt sections (northern and southern) of the BORR. In April 2018, the Australian and State governments jointly announced the construction of the remainder of the Bunbury Outer Ring Road with the Australian Government committing \$560 million. This has subsequently been extended with a total of \$852 million now committed for the delivery of the project.

On 04 June 2019, the WA Transport Minister announced the preferred alignment for the southern section of the BORR, which will be as planned for along the regional road reserve identified in the GBRS. The construction of the BORR is anticipated to commence in 2020 with completion by 2025. A number of new local road links and extensions are proposed as part of the BORR South project and have been identified on the Strategic Plan (SP4) as future road links.

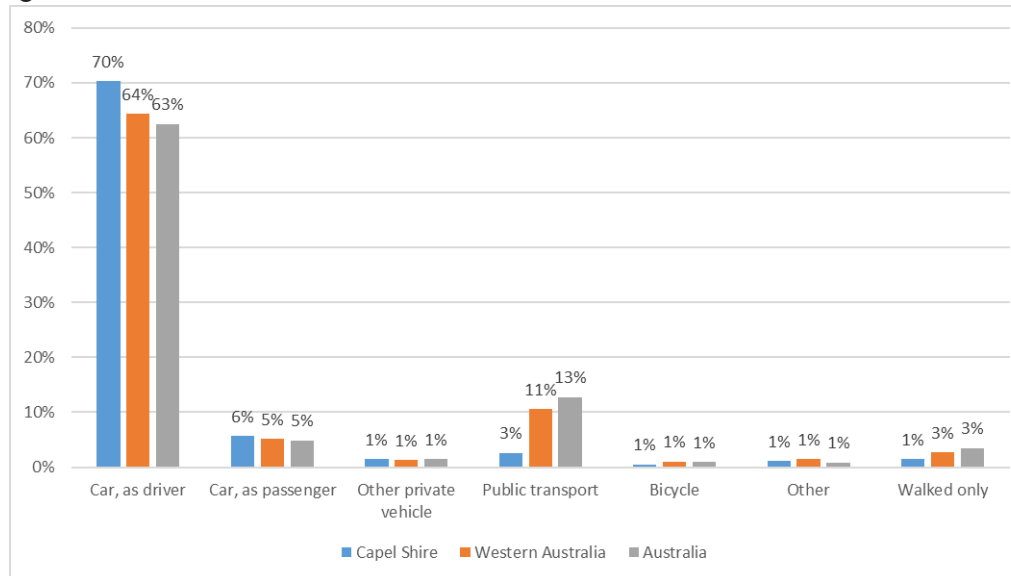
Also, as part of the BORR South announcement, there is a planned upgrade to Bussell Highway to dual carriageway south of Capel to Hutton Road. This will be undertaken in 2020/21. No further duplication of Bussell Highway or upgrade to freeway standard is currently proposed.

The proposed Boyanup Bypass is identified as a regional road reserve in the GBRS and will, upon construction, allow upgrading of the Boyanup main street to occur, and provide access to the future enterprise park. The bypass is unfunded with no set timeframe as of 2019.

Dalyellup is the only area within the Shire serviced by public transport, provided by TransBunbury, with regular bus services linking the suburb to Bunbury Health Campus and the Bunbury CBD. There is also an extensive network of school buses covering most parts of the Shire. The privately-operated South West Coach Lines stops in Capel with connections to Busselton, Bunbury, Perth and Perth Airport. The Shire contains two closed or suspended railway lines including three suspended railway stations.

Data from the Census (ABS, 2018a) (Figure 2.25) shows that a higher proportion of people in the Shire drive to work rather than use public transport, compared to the state or national average. Consequently, only 3% of the Shire population gets to work on public transport compared to 11% in WA and 13% nationally.

A network of formal walking and cycling trails exists around and between the settled areas of the Shire. Strategic connections between Dalyellup and the City of Bunbury and a regional cycling route between Bunbury and Busselton are in development (DoT, 2018).

Figure 2.25 - Travel to Work Method 2016

4.5.2 Infrastructure Services

The Department of Water and Environmental Regulation (DWER) is responsible for managing and protecting Western Australian water resources. To protect the catchment and recharge areas of drinking water reservoirs and bore fields, DWER gazette water reserves, catchment areas and underground water pollution control areas. Collectively, these are known as public drinking water source areas (PDWSAs) (DoW, 2007b).

The Shire of Capel contains four PDWSAs (DoW, 2007a) (KI10, KI33) (Map B4.2):

1. Bunbury Water Reserve (the southern portion, all P3, with one Wellhead Protection Zone (WHPZ)
2. Capel Water Reserve (the entire water reserve, a mix of P1 and P3 and WHPZ)
3. Peppermint Grove Beach Water Reserve (the entire water reserve, P1)
4. Boyanup Water Reserve (the entire water reserve, which has two portions, both P1).

The PDWSAs in the Shire, along with associated wellheads, are protected through the Local Planning Scheme No.8.

There are also a number of identified Sewage Sensitive Areas in the Shire, where development needs to be carefully controlled in line with Government Sewerage Policy.

Reticulated water is available within the urban settlements of Dalyellup, Capel, Boyanup and Peppermint Grove Beach (Map B4.3).

The Water Corporation supplies drinking water for the Capel and Peppermint Grove areas, as well as Dalyellup and Boyanup. Aqwest provides potable water services to north Dalyellup. The Water Corporation is currently replacing deep bores that supply Capel's drinking water. It also provides sewerage services to Dalyellup, Boyanup and Capel (not north of the river).

The Water Corporation does not own or manage drainage facilities for towns in the South West, but it does manage some rural drainage in the Elgin Plains area, Peppermint Grove Beach and Five Mile Brook Diversion Drain.

There are three wastewater treatment plants (WWTPs) in the Shire at Dalyellup, Capel and Boyanup. The WWTP in Dalyellup also serves most of Bunbury and was upgraded in 2017 to increase the treatment capacity of the plant from 11 million litres of wastewater a day to 13 million litres a day. The upgrades will ensure the plant has the capacity to safely process wastewater into the future as the population continues to grow in the region. An odour buffer around the WWTP has been established through the Greater Bunbury Region Scheme (KI32).

The Shire is serviced with sufficient power utility infrastructure (Map B4.4) with a 132 / 110 kV Transmission Line and two 66kV transmission lines passing north/south through the Shire (Western Power, 2018). Capel and Dalyellup are serviced by existing high/medium pressure gas mains.

Mobile phone coverage across the shire is generally good with most parts able to access the 4G network although improvements will be necessary as demand starts to exceed existing capacity and to address identified black spots (Map B4.5).

The Waste Transfer Station at Capel provides a service for Shire residents and property owners to dispose of various wastes and recycling they can't dispose of via other means. It includes facilities for the disposal of general waste, scrap metal, electronic waste, organic waste, rubble, tyres and cardboard. (KI31).

4.5.3 Public Open Space and Recreational Facilities

The Shire has opportunities for all ages to participate in sport and recreation (Map B4.6) and strategies are being formulated to ensure that facilities are available to service the growing population (SoC, 2018e).

The Shire's Community Facilities and Services Plan (SoC, 2013a) gives direction on the development of new facilities, the upgrading of existing facilities, highlights gaps in facilities provision and addresses issues of access and equity. The Trails Master Plan (Transplan, 2009) provides a framework to direct the planning of trails in the Shire to ensure they are well planned, managed, resourced, promoted, and maintained (KI34, KI35).

Sporting activities in the Shire are centred on popular ball sports and informal recreation such as bush walking, fishing and swimming at the beach. There are a number of formal recreation facilities in the Shire including sports grounds in Dalyellup, Boyanup and Capel. Active sports clubs include:

- Football (soccer) (senior and junior);
- AFL (senior and junior);
- Cricket (senior and junior);
- Hockey (senior and junior);
- Netball;

- Tennis;
- Basketball;
- Equestrian and polocross;
- Lawn bowls - Boyanup and Capel;
- Capel Golf Club – Stratham;
- Dalyellup Surf Life Saving Club;
- Coolilup rifle range – Capel; and
- South West Associated Radio Modelers Society.

Other activities include walking, running, cycling, BMX, skate-boarding, sail-boarding, surfing, canoeing, boating, fishing, diving and taekwondo.

The formal and informal recreation facilities available in the Shire include:

- Capel Sports Ground/Capel Country Club;
- Erle Scott Reserve, Capel;
- Boyanup Memorial Park;
- Boyanup and Capel skate parks;
- Fettle's Park, Boyanup;
- Dalyellup beach, parks, lakes and recreation trails;
- Dalyellup Sports Pavilions
- Capel Golf Club, Stratham;
- Capel Equestrian Centre;
- Peppermint Grove Beach foreshore;
- Tuart Forest National Park;
- Ironstone Gully Falls; and
- Preston River Ramble, Boyanup.

4.5.4 Community Facilities

A range of community facilities are provided within the Shire (Map B4.7). The state government primarily provides justice, community safety/policing, education, major transport services and major health services including some services that are only provided in neighbouring local government areas.

The Shire is serviced by a range of public and private schools that cater for current demands. Tertiary and technical education facilities are provided within the City of Bunbury. Additional primary school sites have been identified within structure plans covering Dalyellup South (LB Planning, 2018) and East Boyanup (TME, 2017). The provision of any additional schools to cater for projected population growth will be determined by the Department of Education.

The State Government has developed a new \$8 million Capel police station to service the town and surrounds. The new police station provides a dedicated local police presence for Capel town and the surrounding shire, including the areas of Boyanup, Gelorup, Peppermint Grove Beach and Dalyellup. Ambulance sub centres are provided in Capel and Boyanup. Bush Fire Bridges are provided within Capel, Gelorup, Elgin and Stirling.

With no hospital the Shire is serviced by the Bunbury Regional Hospital / St John of God Hospital and the Busselton Health Campus. Infant health clinics are located in Capel and Boyanup. The Capel townsite and Dalyellup are each serviced by a pharmacy and doctors surgery. Continued development of the Dalyellup District Centre, Capel townsite and Boyanup townsite provide opportunities for additional medical health services to be established as population increases.

Specialist aged care facilities and services within the Shire are generally limited and accessible within the City of Bunbury. There are two retirement villages – one in Dalyellup and one in Boyanup. Demand is likely to exist for further retirement or lifestyle villages to be located in the Shire.

The Capel townsite is the administrative centre of the Shire, consolidated by the recent expansion of the Shire offices and ongoing development of the Capel Civic Precinct. Library services are provided in Capel, Boyanup and Dalyellup. The Shire has two cemeteries (Capel and Boyanup) with the capacity to service projected community needs.

Figure 2.26 - Proposed Community Facilities/Services

Location	Proposed services
Capel	Additional active green space (new oval) at Capel RecreationGround.
Dalyellup	Beach Multi-Purpose Community Recreation Centre Feasibility and design for Multi-Purpose Community Resource Centre Multi-Purpose Community Resource Centre and Public Open Space Development;

Community/cultural organisations active in the Shire include:

- Capel Country Club;
- Country Women’s Association;
- Youth Advisory Council;
- Lions Clubs;
- Apex Clubs;
- Playgroups;
- Senior citizens;
- Meals on Wheels;
- Men’s Shed;
- Over 50s social club;
- Scouts;
- Girl Guides;
- Community associations;
- Music - school/singing groups;
- Arts groups;
- Garden clubs;
- Chamber of Commerce;
- Returned and Services League;
- Land Conservation DistrictCommittee;

The Shire's Community Facilities and Services Plan (SoC, 2013a) provides a framework for the provision of community facilities and services required to address identified growth over strategic time frames. The CFSP forecasts the community facilities required to be established in the Shire over the period to 2031 and indicates the services necessary to help activate and build a strong, cohesive community.

The Shire has prepared a Developer Contributions Plan (SoC, 2020) as a mechanism to implement the CFSP and ensure the timely provision of appropriate community facilities and services in Capel and Dalyellup. Key identified new local community facilities and issues for settlements that will likely have implications for structure planning are set out in Figure 2.26 (K133).

4.6 Communication

Direction 6 in the Shire's Strategic Community Plan relates to Communication and engagement with communities. This is a planned process with the specific purpose of working with identified groups of people, whether they are connected by geographic location, special interest or affiliation, to address issues affecting their wellbeing.

The Shires' Local Planning Strategy has a role to play in introducing provisions aimed at improving community engagement and collaboration in plan-making.

The operation of the Shire's planning function has a key role to play in improving community engagement. This can occur through the development of strategic plans and consultation on development proposals (K139; K140).

5 | Analysis of Key Issues

This strategy highlights all the opportunities that exist in the Shire to encourage sustainable growth. However, it also highlights the issues that exist which could hinder development. The issues below are organised by the six Future Directions set out in Part 1, Section 2. Each issue includes an analysis and a strategic response. The strategic responses are each enabled by a Strategy or Action identified in Part 1, Sections 3 and 4 of this Strategy.

5.1 Community

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI1: High population growth in the Shire over the last 15 years	Significant urban growth has occurred, particularly in Dalyellup, and is projected to continue. Need to manage residential densities in order to reduce urban sprawl, better utilise infrastructure and support existing and planned commercial centres.	ST1: To consolidate existing urban residential areas through appropriate residential coding and the promotion of higher densities around commercial centres	AC1: Review existing urban residential zones and density coding within Scheme 8 and update to reflect relevant townsite strategies and structure plans	SP1; SP2; SP3; SP4; SP5.
KI2: Shire population projected to increase by 37% between 2016 and 2031	Significant urban growth potential identified for Dalyellup, Capel and Boyanup, with over 15 years zoned residential land supply available in these three areas. Structure planning has been undertaken over many of the development areas in Dalyellup, Capel and Boyanup, which will guide infrastructure provision and development staging.	ST2: To identify residential growth precincts in Boyanup, Capel and Dalyellup	AC2: Identify land in Boyanup East, around Capel and in Dalyellup South as Urban Development Zones in Scheme 8	SP2; SP3; SP4.
KI3: Adequate provision for community infrastructure required	Need to identify priority staging for growth areas and provide mechanism to implement staged development. Lack of reticulated sewer network within northern areas of Capel and Boyanup limits residential infill development and subdivision. Inclusion of Scheme provisions to ensure equitable development contributions to community facilities and services is needed.	ST3: To ensure residential growth is managed effectively in terms of amenity and infrastructure impacts	AC3: Produce implementation strategy for growth precincts detailing staging and links to Development Contribution Plan	SP2; SP3; SP4.

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI4: Market pressure for additional 'rural lifestyle' lots	There is a general presumption against additional rural residential subdivision. However, limited opportunities do exist for additional development and subdivision in existing rural residential areas.	ST4: To manage future subdivision and development within rural residential communities in Gelorup, Stratham and North Boyanup	AC4: Identify as rural residential zones in Scheme 8 and include appropriate subdivision and development requirements	SP1; SP4.
KI5: The Shire contains a number of places customarily used by and traditional to the original inhabitants of Australia	The Shire needs to identify places of significance to the original inhabitants of the area in its Local Planning Strategy in order to better understand and protect their significance.	ST5: To recognise and protect the Shire's places of Aboriginal heritage	AC5: Identify Aboriginal heritage places in the Strategic Plan	SP1.
KI6: The Shire contains heritage sites and assets that need to be conserved	The Shire's Heritage List was updated in 2018 along with a new Local Planning Policy for heritage protection. Ongoing monitoring and management of heritage assets required.	ST6: To protect the Shire's existing heritage assets and encourage sensitive reuse	AC6: Establish and maintain a heritage list and include provisions to encourage appropriate use and development of heritage properties in Scheme 8; Promote establishment of rail heritage precinct in Boyanup.	SP1; SP2; SP3.

5.2 Environment

Key Issue	Discussion	Strategy	Action	Strategic Plan
K17: There are a number of species of flora and fauna in the Shire that may require protection	There are various flora and fauna in the Shire listed under the EPBC Act, BC Act and migratory fauna agreements. The presence of these species and the habitat they rely on will not necessarily restrict development but will need to be considered when proposing significant changes to the landscape.	ST7: To protect areas of environmental significance within the Shire	AC7: Identify areas and corridors of environmental significance in the LPS and through the identification of regional and local reserves and Regional Ecological Linkages Special Control Area in Scheme 8	SP1; SP2; SP3; SP4; SP5.
K18: Need to protect existing vegetation and promote tree planting and landscaping in developed areas	There are examples of individual tree specimens and groups of trees or remnant vegetation which are significant in heritage, cultural or ecological terms and may need to be protected from clearing and/or development. Planting in new urban areas is also necessary.	ST8: To protect significant trees and other vegetation within the Shire	AC8: Introduce a supplemental provision to the Deemed Provisions in Scheme 8 to establish a register of significant trees for protection of significant trees	SP1; SP2; SP3; SP4; SP5.
K19: There are a number of key waterways in the Shire that need to be protected and managed in terms of natural elements and processes	Development and land uses such as stock grazing can cause negative impacts upon the natural operation and water quality of the Preston and Capel Rivers and other significant waterways in the Shire.	ST9: To protect and manage land adjacent to waterways and wetlands to improve water quality, biodiversity and land capability	AC9: Identify land along waterways and wetlands as a Regional Ecological Linkages Special Control Area with associated provisions to manage development and vegetation clearing / rehabilitation	SP1; SP2; SP3.
K110: The Shire's residents and businesses need access to a safe and sufficient supply of potable and non-potable water	There are significant sources of public drinking water in the Shire, principally at Dalyellup and Capel that need to be protected from contamination or over-consumption. There is also a need for a sufficient supply of non-potable water to support the environment, public open space, industry and agriculture.	ST10: To ensure protection for and good management of water resources, including public drinking water	AC10: Identify public drinking water source areas and wellhead protection zones around drinking water bores within a Special Control Area in Scheme 8	SP1; SP3; SP4.
K111: There are significant natural deposits of titanium-zircon mineral sands as well as basic raw materials such as basalt, gravel and sand in the Shire	There is a need to identify and protect mineral sands deposits from incompatible land uses and sterilization by development encroachment. This will ensure that access to, and mining of these resources, can occur in the future.	ST11: To protect deposits of strategic minerals and basic raw materials from incompatible land uses and sterilization by development	AC11: Identify land with strategic mineral and basic raw materials deposits within a Special Control Area in Scheme 8 with associated provisions in accordance with the GBRS Strategic Minerals and Basic Raw Materials Policy	SP1; SP2; SP3; SP4.

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI12: The coastal strip along the western boundary of the Shire is well used but is subject to a range of coastal processes	There is significant demand for use and recreation of the Shire's coastal areas and beaches. A significant amount of strategic infrastructure and development has occurred along the coast, particularly at Dalyellup and Peppermint Grove Beach. Future use and development needs to take account of coastal processes such as erosion, climate change and sea level rise.	ST12: To manage coastal areas;	AC12: Identify land along the coast to be reserved as Regional and Public Open Space in Scheme 8 and undertake Coastal Hazard Risk Management and Adaptation Planning (CHRMAP) study to inform future review of LPS;	SP1; SP4; SP5.
KI13: There are significant areas within the Shire identified as being valuable in terms of agricultural production	Land around Capel has been identified as valuable for dairy, grazing and horticultural purposes and there is a need to protect the land from incompatible uses and manage it sustainably in order maintain its quality and capability	ST13: To protect areas of Priority Agricultural land in the Shire for food production	AC13: Identify land to be zoned for Priority Agriculture in Scheme 8 with appropriate provisions to manage land uses and promote food production, in line with GBRS Priority Agricultural Land Policy	SP1; SP3; SP5.
KI14: Most of the land in the Shire is rural and there are development and land use pressures which may undermine the quality and quantity of rural land	The Local Planning Strategy and Scheme 8 should help balance complementary or conflicting land uses e.g. rural tourist accommodation, farm stay, etc. and limit rural subdivision in accordance with State planning policy	ST14: To restrict further rural subdivision and manage rural land for a range of agriculture, rural pursuits and compatible uses	AC14: Identify land to be zoned Rural in Scheme 8 with appropriate provisions to manage land use and development, including supplemental provisions to enable certain types of ancillary agricultural development to be exempt from the need for development approval. Only support subdivision of rural land in accordance with State planning framework	SP1; SP2.
KI15: Most of the land in the Shire is within a Bushfire Prone Area	Bushfire presents a serious risk to many existing and planned communities in the Shire and the development needs to be planned carefully in order to minimise the risk to people and property.	ST15: To protect existing and proposed communities from the threat of bushfire	AC15: Consider bushfire hazard in the planning of new and infill development, in accordance with the Bushfire Hazard Level Assessment, relevant Bushfire Management Plans and State Planning Policy No.3.7 – Planning in Bushfire Prone Areas	SP1; SP2; SP3; SP4; SP5.

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI16: Occasional flooding from the Capel and Preston Rivers can affect communities in the Shire	Need to ensure future development is in the right location and of the right design to provide an acceptable level of flood protection for people, property and community infrastructure. Need to assist the natural flood carrying capacity of floodplains by ensuring any use or development maintains the free passage and temporary storage of floodwaters.	ST16: To protect existing and proposed communities from flooding from the Capel and Preston Rivers	AC16: Identify Flood-Prone Land Special Control Areas in Scheme 8 with appropriate provisions to manage development and flooding	SP2; SP3.
KI17: Some land uses can have negative environment effects on other sensitive land uses	Certain types of development and land use such as mines or wastewater treatment plants can have negative effects on the amenity of residential or other sensitive landuses due to noise, odour, vibration, or air/water/soil pollution. Need to establish buffers around these potentially polluting uses in order to protect nearby sensitive land uses.	ST17: To protect sensitive land uses from the effects of intensive farming, mining and industrial activities;	AC17: Identify special control areas in Scheme 8 with appropriate provisions to manage/control sensitive land uses and development within the SCAs in proximity to intensive agriculture, mining, extractive industries and industrial activities	SP1; SP2; SP3; SP4; SP5.
KI18: Development in the Shire needs to respond to the challenges of global climate change in order to be sustainable	Global climate change threatens the availability of land, water and other resources in the Shire. New and existing development in the Shire needs to adapt in order to maintain the necessary supply of land, water and energy, etc.	ST18: To reduce the impact of existing and proposed development on global climate change	AC18: Identify opportunities for the use of land within the Shire for renewable energy facilities through the addition of an appropriate land use in the Zoning Table in Scheme 8. Promote energy and water efficient design through the production of a Local Planning Policy	SP1.
KI19: Need to establish and promote development of Kaatijinup Biodiversity Park	The Shire of Capel in partnership with FAWNA Inc., Iluka and DBCA is creating a 300 ha Open Plan Biodiversity Park, surrounded by a predator proof fence, to restore the habitat and provide an environment to protect and reintroduce historical endemic species of plants and animals. The park will be developed as an Eco-Tourism destination with funds raised from commerce to be utilised in the ongoing management of the Regional Wildlife Hospital and conservation activities.	ST19: To promote establishment and development of Kaatijinup Biodiversity Park	AC19: Work with stakeholders to restore habitat for native wildlife and create eco-tourism destination	SP1

5.3 Economy

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI20: Need to provide shops and services for new residential population in Dalyellup	The further development of Dalyellup District Centre will help to generate employment opportunities and also increase patronage for public transport. The existing Dalyellup District Centre Outline Development Plan dates from 2012 and is due for review, given the market has not delivered the extent or form of planned development.	ST20: To develop Dalyellup as a District Centre serving a sub-regional catchment	AC20: Identify land within Dalyellup as a District Centre Zone in Scheme 8 and include relevant development requirements in line with Greater Bunbury Activity Centres Policy. Review existing Dalyellup District Centre Outline Development Plan	SP4.
KI21: Need for existing centres to respond to changing markets and commercial opportunities	Need for a broader range of permissible commercial land uses to accommodate and facilitate contemporary and emerging business trends.	ST21: To consolidate and expand the town centres of Boyanup and Capel	AC21: Identify land within Boyanup and Capel Town Centres as Commercial Zone in Scheme 8, in line with relevant townsite strategies;	SP2; SP3.
KI22: Need for existing centres to respond to changing commercial and residential opportunities. Lack of vitality and viability in existing centres due to lack of resident population	Need for Local Planning Scheme to accommodate and facilitate a broader range of contemporary land use permissibility to accommodate residential development.	ST22: To promote mixed-use areas adjoining existing district and town centres	AC22: Identify land adjoining Dalyellup District Centre and Boyanup and Capel Town Centres as Mixed-Use Residential Zone in Scheme 8, in line with relevant activity centre plan and townsite strategies	SP2; SP3; SP4.
KI23: Limited provision of local convenience retail or services in some parts of the Shire	Existing and planned local centre sites available in Dalyellup, Gelorup and Peppermint Grove Beach have the capacity to cater for demand.	ST23: To consolidate existing and promote new local centres in Dalyellup, Gelorup and Peppermint Grove Beach	AC23: Identify land within Dalyellup Beach, Gelorup and Peppermint Grove Beach as a Commercial Zone in Scheme 8, in line with relevant structure plans, activity centre plans and land use strategies;	SP4; SP5.

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI24: Relatively few employment generators exist within the Shire, with most in Bunbury and Busselton	Potential for substantial growth in dairying, food production and agri-business. Potential for the Shire to accommodate regional facilities in association with existing rural centres.	ST24: To promote creation of Boyanup Enterprise Park and consolidation / expansion of Capel Light Industrial Area	AC24: Identify land within the existing Capel LIA as Light Industry Zone in Scheme 8 and identify land for the creation of the Boyanup Enterprise Park and expansion of Capel LIA as Future Industrial land in the LPS, in line with respective townsite strategies, to support future rezoning	SP2; SP3.
KI25: The market for visitor accommodation in Capel remains subsidiary and complementary to the major offer of Busselton/Bunbury	Visitor accommodation is limited in the Shire but there is an opportunity to strengthen and expand existing facilities in order to improve the tourist experience.	ST25: To support development of Peppermint Grove Beach Holiday Park and Dalyellup Tourism Precinct	AC25: Identify land at Lot 105, 48 Peppermint Grove Beach Road in Scheme 8. Identify land at Dalyellup Beach for tourism precinct in LPS	SP5.
KI26: Increasing trend to various forms of home-based businesses	Need to cater for more flexible employment by enabling people to work and run businesses from home whilst still protecting residential amenity.	ST26: To support low-key commercial operations within residential properties	AC26: Identify appropriate land use permissibility in Zoning Table and produce a Local Planning Policy to manage home occupation, home business or holiday accommodation uses within residential properties	SP1.
KI27: The tourist offer in Capel remains subsidiary and complementary to the major offer of Busselton/ Bunbury	The tourist offer is limited in the Shire but there is an opportunity to strengthen and expand existing facilities and rural businesses in order to improve the tourist experience.	ST27: To support tourism and rural diversification in the Shire	AC27: Identify appropriate land uses and definitions in Scheme 8 with most uses being a 'D' or 'A' use in the Rural Zone	SP1.

5.4 Leadership

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI28: The community encourages improvements in the explanation about the decisions that the Council makes	This could be improved by making sure written reasons are included in every planning decision the Shire makes.	ST28: To ensure that the reasons for a planning decision are clear and easily understood	AC28: Require all strategic and statutory planning decisions made by the Council to include the reasons for the decision	N/A
KI29: The community encourages improvements in transparency about the decisions that the Council makes	This could be improved by making sure there is greater community engagement in the processing of development proposals and applications. For example, all submitters could be informed of the outcome of a planning decision.	ST29: To ensure the operation of the planning service is open and transparent	AC29: Publish regular lists of current planning proposals in the Shire and provide regular monitoring reports on the Shire's planning service	N/A

5.5 Infrastructure

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI30: Existing and planned strategic road network in the Shire is essential for the accessibility and connection between communities, homes, jobs and services	Use of private vehicles will remain the dominant mode of transport within and through the Shire for the life of the LPS. The road and (currently unused) railway network in the Shire needs to be protected to maintain their integrity as infrastructure.	ST30: To protect existing and proposed road and railway network in the Shire	AC30: Identify Primary, District and Local Distributor Roads, Local Roads and Railways as Reserves in Scheme 8. Include future road links such as the Bunbury Outer Ring Road as Regional Reserves in Scheme 8;	SP1; SP2; SP3; SP4; SP5.
KI31: The community has highlighted concerns with safety and connectivity of Bussell Highway through Capel	There are concerns about the safety of crossing Bussell Highway between Capel and Peppermint Grove Beach and there is a need to rationalize the number of highway intersections for Capel townsite in the future.	ST31: To promote improvements to safety and access of Bussell Highway through the Shire, including the provision of a new intersection for Capel Townsite	AC31: Identify future road links and promote safety improvements on Bussell Highway	SP1; SP3; SP4;

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI32: Need to create a strategic dedicated cycle link between Bunbury and Busselton	The Bunbury – Wellington 2050 Cycling Strategy identified an inter-regional primary route through the Tuart Forest linking Dalyellup to Capel, Peppermint Grove Beach and ultimately Busselton.	ST32: To promote the creation of a strategic cycle link through the Shire of Capel linking Bunbury and Busselton along with connections to local townsites	AC32: Identify key elements and upgrade infrastructure to enable creation of strategic cycle link.	SP1; SP4; SP5
KI33: Existing and planned strategic public infrastructure is essential for the functioning of communities and businesses	There are essential infrastructure elements related to major utilities in many parts of the Shire which need to be identified and protected from incompatible development. Essential infrastructure to service proposed growth areas also needs to be identified.	ST33: To protect existing and proposed public infrastructure such as power, water, communications and community facilities	AC33: Identify key utility and community infrastructure facilities as Reserves in Scheme 8	SP1; SP2; SP3; SP4; SP5.
KI34: Essential infrastructure such as roads, or wastewater treatment plants can have adverse impacts on nearby residents in terms of noise, odour etc.	There is a need for consistent development setbacks from existing and proposed highways as well as a consistent approach to signage and access along highways in order to protect amenity and road safety. The identification of odour buffers around wastewater treatment plants can help protect communities from unpleasant smells, etc.	ST34: To protect residents and users from potential adverse impacts from essential infrastructure	AC34: Identify land adjoining highways, railways, wastewater treatment plants and other essential infrastructure as Special Control Areas in Scheme 8 with appropriate provisions to manage any adverse effects such as noise or pollutants, in accordance with the State planning framework	SP1; SP2; SP3; SP4; SP5.
KI35: New development creates increased demand for shared community services such as libraries and sport and recreation facilities.	The Shire has identified a number of key community, sport and recreation facilities that are needed in order to meet increased demand generated by new development in Boyanup, Capel and Dalyellup. The cost of these facilities can be partially met by contributions from developers through the Shire's Development Contribution Plan.	ST35: To ensure new development contributes a fair share towards community facilities and infrastructure;	AC35: Identify Development Contribution Special Control Areas for Capel and Dalyellup in Scheme 8 in line with the Shire's Development Contribution Plan (DCP).	SP3; SP4.

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI36: Community infrastructure such as sport and recreation grounds is essential for public health and needs to be protected	There is an extensive network of existing and planned sporting and recreational infrastructure in the Shire, particularly in Dalyellup, Capel and Boyanup that needs to be identified and protected from incompatible uses or development.	ST36: To protect and enhance the sport and recreation grounds in Boyanup, Capel and Dalyellup and plan for future provision.	AC36: Identify land within Boyanup, Capel and Dalyellup for public open space and recreation and develop long term strategy for the supply of water for green space irrigation	SP1; SP2; SP3; SP4; SP5.
KI37: There is a need for opportunities for informal recreation in order to support physical and mental health and community well-being	There is an increasing focus on community connectivity and non-motorised transport with a focus on footpaths, dual use paths, cycle paths, tracks and trails. Informal public open space and greenspaces have a significant benefit for individuals and communities.	ST37: To protect areas of informal recreation and open space within the Shire	AC37: Identify land as Regional and Public Open Space Reserve in Scheme 8	SP1; SP2; SP3; SP4; SP5.
KI38: Young people in the Shire have a need for specific types of land uses, development and infrastructure.	The age profile of the Shire is tilted towards younger people so there is a need to address their specific requirements for facilities and recreation.	ST38: To provide appropriate spaces for youth activity and engagement	AC38: Identify multi-purpose youth centres and recreational spaces within Capel and Dalyellup in the Strategic Plan	SP3; SP4.
KI39: Aged people in the Shire have a need for specific types of land uses, development and infrastructure.	Carefully designed and located residential accommodation, often closely associated with care and associated services, is required to meet the needs of older people within the Shire.	ST39: To provide precincts within residential areas for senior living and residential care to enable people to age-in-place	AC39: Identify specific residential zones in Scheme 8 restricted for aged persons dwellings and/or associated care facilities	SP2; SP3; SP4.
KI40: There is a need to ensure that all development and infrastructure is accessible to everyone.	Carefully designed and located development and infrastructure is required to ensure universal accessibility of services and infrastructure.	ST40: To promote universal accessibility and to allow people from all abilities access and use of essential infrastructure	AC40: Include specific provisions in Local Planning Policies to ensure universal accessibility in new development	N/A

5.6 Communication

Key Issue	Discussion	Strategy	Action	Strategic Plan
KI41: The community encourages improvements in leadership in the Shire and in a community vision for the area	A greater engagement with the community in the production and development of planning strategies for the Shire would help to improve this perception.	ST41: To promote greater participation of all communities in the strategic land use planning of the Shire	AC41: Seek to collaborate with the community on future reviews of the Shire's Local Planning Strategy and Local Planning Scheme and on Complex Scheme Amendments	N/A
KI42: The community encourages improvements in engagement by the Council in finding out what the Communities' needs are in terms of land use and development	A greater engagement with the community in the production and development of Local Structure Plans and Activity Centre Plans would help to improve this perception. This would require a greater commitment from landowners to undertake pre-application consultation on structure plan proposals as well as for the Shire.	ST42: To promote greater participation of all communities in the spatial planning of the Shire;	AC42: Seek to collaborate with landowners and the community in the production of new Local Structure Plans and/or Precinct Plans	N/A

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7 Appendices

Appendix A: State and Local Planning Framework

State Planning Policies

Local Planning Strategy

State Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
State Planning Policy No.1 - State Planning Framework (SPP1) (WAPC, 2014d)	<p>This policy sets the overall framework for planning within Western Australia. The five key principles to be applied when preparing a local planning framework such as local planning strategies and schemes are:</p> <ul style="list-style-type: none"> • Community: To enable diverse, affordable, accessible and safe communities. • Economy: To facilitate trade, investment, innovation, employment and community betterment. • Environment: To conserve the State's natural assets through sustainable development. • Infrastructure: To ensure infrastructure supports development. • Regional Development: To build the competitive and collaborative advantages of the regions. • Governance: To build community confidence in development processes and practices. 	All	All	All	All
State Planning Policy No.2 – Environment and Natural Resources (SPP 2.0) (WAPC, 2003a)	<p>This policy examines how the environment and natural resources should be considered in land use planning and decision-making. The policy provides specific guidelines related to air quality, soil and land quality, biodiversity, agricultural land and rangelands, minerals, petroleum and basic raw material resources, marine resources and aquaculture, landscape, greenhouse gas emissions and energy efficiency.</p>	KI7- KI18	ST7; ST8; ST9; ST18;	AC7; AC8; AC9; AC18;	All
State Planning Policy No.2.4 –Basic Raw Materials (SPP2.4) (WAPC, 2000a)	<p>This policy sets out the matters which are to be taken into account and given effect to by the WAPC and local governments in considering zoning, subdivision and development applications for extractive industries. The policy seeks to protect priority resource locations, key extraction areas and extraction areas from being developed for incompatible land uses which could limit future exploitation and to ensure that the use and development of land for the extraction of basic raw materials does not adversely affect the environment or amenity in the locality of the operation during or after extraction.</p>	KI11; KI17	ST11; ST17	AC11; AC17;	SP1; SP2; SP3; SP4;

State Planning Policies

Local Planning Strategy

State Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
State Planning Policy No.2.5 – Land Use Planning in Rural Areas (SPP 2.5) (WAPC, 2016c)	<p>The policy seeks to protect and preserve rural land for rural purposes including primary production, basic raw materials, regional facilities, and protection of biodiversity and landscape.</p> <p>The location of rural land should be appropriately planned for and land identified as priority agricultural land should be indicated in local planning strategies and schemes. The policy provides some detailed guidance on intensive agricultural uses and on managing any land use conflicts. The policy also provides guidance on rural living areas and rural subdivision.</p>	KI4, KI13, KI14	ST4; ST13; ST14; ST17;	AC4; AC13; AC14; AC17	SP1; SP2; SP3; SP5;
State Coastal Planning (SPP2.6)	<p>The State Coastal Planning Policy provides for the long-term sustainability of WA's coast. There are pressures on the coastal zone for land use and development for a variety of purposes including a mix of recreational, residential, industrial and commercial uses. The policy provides a balanced approach to these often competing needs and desires in a way that takes into account the values of the coastal zone.</p> <p>Guidance is provided for land use and development decision-making within the coastal zone including managing development and land use change; establishment of coastal foreshore reserves; and to protect, conserve and enhance coastal values. The policy requires that coastal hazard risk management and adaptation is appropriately planned for; encourages innovative approaches to managing coastal hazard risk; and provides for public ownership of coastal foreshore reserves.</p> <p>The objectives of the policy are to:</p> <ul style="list-style-type: none"> • Ensure that development and the location of coastal facilities takes into account coastal processes, landform stability, coastal hazards, climate change and biophysical criteria. • Ensure the identification of appropriate areas for the sustainable use of the coast for housing, tourism, recreation, ocean access, maritime industry, commercial and other activities. • Provide for public foreshore reserves and access to them on the coast; and • Protect, conserve and enhance coastal values, particularly in areas of landscape, nature conservation, indigenous and cultural significance. 	KI12	ST12;	AC12;	SP1; SP4; SP5;

State Planning Policies

Local Planning Strategy

State Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
State Planning Policy No.2.7 – Public Drinking Water Source (SPP2.7) (WAPC, 2003b)	<p>The policy addresses land use and development in public drinking water supply areas.</p> <p>The policy seeks to protect and manage public drinking water source areas from incompatible land uses and pollution in order to maintain the quality of the drinking water. Land uses that are detrimental to the quality and quantity of the water supply will not be permitted unless it can be demonstrated that such impacts can be managed.</p>	KI10	ST10;	AC10;	SP1; SP3; SP4;
State Planning Policy No.2.9 - Water Resources (SPP2.9) (WAPC, 2006c)	<p>The <i>Water Resources Policy</i> is directly related to the overarching <i>SPP 2 Environment and Natural Resources Policy</i> and provides clarification and additional guidance to planning decision makers for consideration of water resources in land use planning.</p> <p>The objectives of this policy are to:</p> <ul style="list-style-type: none"> • protect, conserve and enhance water resources that are identified as having significant economic, social, cultural and/or environmental values. • assist in ensuring the availability of suitable water resources to maintain essential requirements for human and all other biological life with attention to maintaining or improving the quality and quantity of water resources; and • promote and assist in the management and sustainable use of water resources. 	KI9	ST9; ST10;	AC9; AC10;	SP1; SP2; SP3;

State Planning Policies

Local Planning Strategy

State Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
State Planning Policy No.3.0 - Urban Growth and Settlements (SPP 3.0) (WAPC, 2006b)	<p>This policy sets out the principles and considerations which apply to planning for urban growth and settlements in Western Australia. The objectives of this policy are:</p> <ul style="list-style-type: none"> To promote a sustainable and well-planned pattern of settlement across the State, with sufficient and suitable land to provide for a wide variety of housing, employment, recreation facilities and open space To build on existing communities with established local and regional economies, concentrate investment in the improvement of services and infrastructure and enhance the quality of life in those communities To manage the growth and development of urban areas in response to the social and economic needs of the community and in recognition of relevant climatic, environmental, heritage and community values and constraints To promote the development of a sustainable and liveable neighbourhood form which reduces energy, water and travel demand while ensuring safe and convenient access to employment and services by all modes, provides choice and affordability of housing and creates an identifiable sense of place for each community and To coordinate new development with the efficient, economic and timely provision of infrastructure and services. 	KI1; KI2; KI3; KI18;	ST1; ST2; ST3; ST20; ST21; ST22; ST23; ST30; ST33; ST35; ST37; ST38; ST39; ST40	AC1; AC2; AC3; AC20; AC21; AC22; AC23; AC30; AC33; AC36; AC37; AC38; AC39; AC40	All

State Planning Policies

Local Planning Strategy

State Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
State Planning Policy No.3.4 - Natural Hazards and Disasters (SPP3.4) (WAPC, 2006a)	<p>The purpose of this policy is to inform and guide planning authorities in the undertaking of their planning responsibilities, and in integrating and coordinating the activities of State agencies that influence the use and development of land that may be affected by natural hazards such as floods, cyclones, storm surge, severe storms, landslide, bush fires and earthquakes.</p> <p>The objectives of this policy are to:</p> <ul style="list-style-type: none"> • Include planning for natural disasters as a fundamental element in the preparation of all statutory and non-statutory planning documents, specifically town planning schemes and amendments, and local planning strategies; and • Through the use of these planning instruments, to minimise the adverse impacts of natural disasters on communities, the economy and the environment. 	KI15; KI16;	ST15; ST16; ST17;	AC15; AC16; AC17;	All
State Planning Policy No.3.5 - Historic Heritage Conservation (SPP3.5) (WAPC, 2007)	<p>This policy sets out the principles of sound and responsible planning for the conservation and protection of Western Australia's historic heritage. The objectives of this policy are:</p> <ul style="list-style-type: none"> • To conserve places and areas of historic heritage significance. • To ensure that development does not adversely affect the significance of heritage places and areas. • To ensure that heritage significance at both the State and local levels is given due weight in planning decision-making. • To provide improved certainty to landowners and the community about the planning processes for heritage identification, conservation and protection. <p>SPP 3.5 sets out policy measures including identification and assessment, designation of heritage areas, differentiation between heritage areas and urban character areas, establishment of heritage lists, considerations for development assessment, development control principles and considerations for planning schemes and strategies.</p> <p>Scheme 8 includes deemed provisions for heritage places in accordance with the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>.</p>	KI6;	ST6;	AC6;	SP1; SP2; SP3; SP5;

State Planning Policies

Local Planning Strategy

State Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
State Planning Policy No.3.6 - Development Contributions for Infrastructure (SPP3.6) (WAPC, 2009b)	<p>The policy sets out the principles and considerations that apply to development contributions for the provision of infrastructure in new and established urban areas, and the form, content and process to be followed. The objectives of this policy are:</p> <ul style="list-style-type: none"> to promote the efficient and effective provision of public infrastructure and facilities to meet the demands arising from new growth and development to ensure that development contributions are necessary and relevant to the development to be permitted and are charged equitably among those benefiting from the infrastructure and facilities to be provided to ensure consistency and transparency in the system for apportioning, collecting and spending development contributions to ensure the social well-being of communities arising from, or affected by, development. <p>This Policy forms part of the local planning scheme.</p>	KI33;	ST3; ST35;	AC3; AC35;	SP2; SP3; SP4;
State Planning Policy 3.7 – Planning for Bushfire Risk Management (SPP3.7) (WAPC, 2015b)	<p>This policy directs how land use should address bushfire risk management in Western Australia. It applies to all land which has been designated as bushfire prone by the Fire and Emergency Services (FES) Commissioner as highlighted on the Map of Bush Fire Prone Areas.</p> <p>SPP 3.7 seeks to guide the implementation of effective risk-based land use planning and development to preserve life and reduce the impact of bushfire on property and infrastructure. The objectives of this policy are to:</p> <ul style="list-style-type: none"> Avoid any increase in the threat of bushfire to people, property and infrastructure. Reduce vulnerability to bushfire through the identification and consideration of bushfire risks in decision-making at all stages of the planning and development process. Ensure that higher order strategic planning documents, strategic planning proposals, subdivision and development applications take into account bushfire protection requirements and include specified bushfire protection measures; and Achieve an appropriate balance between bushfire risk management measures and, biodiversity conservation values, environmental protection and biodiversity management and landscape amenity, with consideration of the potential impacts of climate change. 	KI15;	ST15;	AC15;	All

State Planning Policies

Local Planning Strategy

State Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
State Planning Policy No.4.1 – State Industrial Buffer (SPP4.1) (WAPC, 1997)	<p>The purpose of the policy is to provide a consistent statewide approach for the protection and long-term security of industrial zones, transport terminals (including ports), other utilities and special uses.</p> <p>It also provides for the safety and amenity of surrounding land uses while having regard to the rights of landowners who may be affected by residual emissions and risk. The objectives of this policy are:</p> <ul style="list-style-type: none"> To provide a consistent statewide approach for the definition and securing of buffer areas around industry, infrastructure and some special uses To protect industry, infrastructure and special uses from the encroachment of incompatible land uses To provide for the safety and amenity of land uses surrounding industry, infrastructure and special uses and To recognise the interests of existing landowners within buffer areas who may be affected by residual emissions and risks, as well as the interests, needs and economic benefits of existing industry and infrastructure which may be affected by encroaching incompatible land uses. 	KI17;	ST17;	AC17;	SP1; SP3;
State Planning Policy No.5.2 – Telecommunications Infrastructure (SPP5.2) (WAPC, 2015d)	<p>This planning policy aims to balance the need for effective telecommunications services and effective roll-out of networks, with the community interest in protecting the visual character of local areas. Using a set of land use planning policy measures, the policy intends to provide clear guidance pertaining to the siting, location and design of telecommunications infrastructure.</p> <p>The objectives of this policy are to:</p> <ul style="list-style-type: none"> facilitate the provision of telecommunications infrastructure in an efficient and environmentally responsible manner to meet community needs manage the environmental, cultural heritage, visual and social impacts of telecommunications infrastructure ensure that telecommunications infrastructure is included in relevant planning processes as essential infrastructure for business, personal and emergency reasons and promote a consistent approach in the preparation, assessment and determination of planning decisions for telecommunications infrastructure. 	KI33;	ST33;	AC33;	All

State Planning Policies

Local Planning Strategy

State Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
State Planning Policy No.5.4 - Road and Rail Transport Noise and Freight Considerations in Land Use Planning (SPP5.4) (WAPC, 2019f)	<p>This policy aims to promote a system in which sustainable land use and transport are mutually compatible.</p> <p>The objectives of this policy are to:</p> <ul style="list-style-type: none"> protect people from unreasonable levels of transport noise by establishing a standardised set of criteria to be used in the assessment of proposals protect major transport corridors and freight operations from incompatible urban encroachment encourage best-practice design and construction standards for new development proposals and new or redeveloped transport infrastructure proposals facilitate the development and operation of an efficient freight network and facilitate the strategic co-location of freight handling facilities. <p>It should be noted that the policy applies to proposals for new noise-sensitive developments, new railways or major roads, major redevelopments of existing railways or major roads, etc. It does not apply to noise from existing railways or major roads in the vicinity of an existing noise-sensitive land use, or an increase in traffic along an existing railway or major road in the absence of a major redevelopment.</p>	KI30; KI31	ST34;	AC34;	SP1
State Planning Policy 7.0 – Design of the Built Environment (SPP7.0) (WAPC, 2019b)	<p>This is the lead policy for the Design WA initiative that elevates the importance of design quality across the whole built environment. It includes 10 principles for good design and establishes the framework for integrating design review as a part of the evaluation process.</p>	KI1; KI6; KI38; KI39; KI40	ST1; ST22;	AC1; AC22;	SP2; SP3; SP4; SP5;
State Planning Policy 7.3 - Residential Design Codes (SPP7.3) (WAPC, 2019c)	<p>SPP3.1 Residential Design Codes has been renamed State Planning Policy 7.3 Residential Design Codes Volume 1, with all existing content except for Part 6 to remain.</p> <p>The new State Planning Policy 7.3 R-Codes Volume 2 – Apartments replaces the content of Part 6 of the R-Codes, focusing on improved design outcomes for apartments (multiple dwellings).</p>	KI1; KI6; KI38; KI39; KI40	ST1; ST22;	AC1; AC22;	SP2; SP3; SP4; SP5;

Operational Policies

Local Planning Strategy

State planning framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Government Sewerage Policy (WAPC, 2019e);	<p>The Government Sewerage Policy promotes the sustainable use and development of land in the State through the following objectives:</p> <ul style="list-style-type: none"> to generally require connection of new subdivision and development to reticulated sewerage to protect public health and amenity to protect the environment and the State's water and land resources to promote the efficient use of infrastructure and land to minimise costs to the broader community including by ensuring an appropriate level and form of sewage servicing is provided and to adopt the precautionary principle to on-site sewage disposal. 	KI3; KI4; KI9; KI10; KI33; KI34;	ST3; ST33;	AC3; AC33	SP2; SP3; SP4; SP5;
Liveable Neighbourhoods (WAPC, 2009a);	Liveable Neighbourhoods is a Western Australian Planning Commission (WAPC) operational policy that guides the structure planning and subdivision for greenfield and large brownfield (urban infill) sites. Its purpose is to promote an urban structure of walkable neighbourhoods to ensure that employment, activity centres and commercial and community facilities and services are accessible by a choice of means of transport.	KI1; KI2; KI20; KI22; KI36; KI37;	ST1; ST23; ST37;	AC1; AC22; AC37;	SP2; SP3; SP4; SP5;
Subdivision of Land – General Principles (DCP 1.1) (WAPC, 2004b);	This policy sets out the general principles, which will be used by the WAPC in determining applications for the subdivision of land. It indicates the WAPC's basic requirements for the creation of new lots as well as the procedures it will follow in processing subdivision applications. The policy has a general application for the LPS and Scheme 8 whereby it will be applied when dealing with subdivision proposals.	KI1; KI2; KI3; KI4;	ST1;ST2; ST3;ST4;	AC1; AC2; AC3; AC4;	SP2; SP3; SP4; SP5;
Development Control – General Principles (DCP 1.2) (WAPC, 2004a);	The policy states in plain terms the development requirements in respect of land the subject of the relevant region schemes as well as the procedures that are followed for submitting an application for approval to commence development for determination by the WAPC. Therefore, it is only indirectly applicable to the Shire, to be used only when providing advice to the WAPC when applications are referred to the local government under the Greater Bunbury Region Scheme.	KI1; KI2; KI3; KI4;	ST1; ST2; ST3; ST4;	AC1; AC2; AC3; AC4;	SP2; SP3; SP4; SP5;
General Road Planning (DCP 1.7) (WAPC, 1998a);	The policy establishes requirements for land contributions and the construction of various categories of roads and outlines principles that apply to aspects of the planning and provision of all types of roads. It also clarifies the role of roads as service corridors for public utilities. It is applied generally within the LPS and Scheme 8 when considering the provision of new roads.	KI30; KI33;	ST30; ST33;	AC30; AC33;	All

Operational Policies

Local Planning Strategy

State planning framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Freeway service centres and roadhouses (DCP 1.10) (WAPC, 2016a);	<p>The policy outlines the location and design measures related to the establishment of freeway service centres and roadhouses throughout the State. It addresses the visual impacts of signage and provides details of acceptable facilities and services.</p> <p>This policy only applies in Capel in relation to Roadhouses as there are no Freeways in the Shire at present.</p>	KI30;	ST30;	AC30;	All
Residential Subdivision (DCP 2.2) (WAPC, 2017d);	<p>This policy sets out the WAPC's requirements for landowners intending to subdivide residential land. It assists to create a diversity of lot and housing types throughout the State. It seeks to:</p> <ul style="list-style-type: none"> • establish a consistent and coordinated approach to the creation of residential lots throughout Western Australia • adopt criteria for residential lots that will ensure each lot has a suitable level of amenity, services and access • facilitate the supply of residential lots in regular shapes and size ranges that reflect the statutory provisions of local planning schemes – including the R-Codes, the availability of reticulated sewerage, electricity and water and the need for frontage to public streets for access <p>This policy would apply generally in the LPS and Scheme 8 in relation to the planning of new residential lots.</p>	KI1; KI2; KI3; KI4;	ST1; ST2; ST3; ST4;	AC1; AC2; AC3; AC4;	SP2; SP3; SP4; SP5;
Public Open Space in Residential Areas (DCP 2.3) (WAPC, 2002);	<p>In order to preserve amenity and contribute to the quality of life in urban areas, including country towns, the policy requires suitable provision of public open spaces which can be used by people living and/or working in those areas. It seeks to:</p> <ul style="list-style-type: none"> • ensure that all residential development in the State is complemented by adequate, well-located areas of public open space that will enhance the amenity of the development and provide for the recreational needs of local residents • In appropriate cases, facilitate the provision of land for community facilities - such as community centres, branch libraries and day-care centres – in conjunction with land ceded for public open space • To protect and conserve the margins of wetlands, watercourses and the foreshores adjacent to residential development. <p>This policy is reflected in the LPS and Scheme 8 through the identification and reservation of land for community facilities and public open space.</p>	KI35; KI36;	ST35; ST36;	AC35; AC36;	SP2; SP3; SP4; SP5;

Operational Policies

Local Planning Strategy

State planning framework	Summary	Key Issue	Strategy	Action	Strategic Plan
School Sites (DCP 2.4) (WAPC, 1998c);	<p>This Policy Statement sets out general criteria and design standards for the provision of school sites in residential districts. It seeks to:</p> <ul style="list-style-type: none"> • make provision for school sites and other education facilities related to community needs • indicate school site requirements, specify criteria for selecting new sites, and to establish guide- lines for their design and location in new subdivisions <p>This policy is reflected in the LPS and Scheme 8 through the identification and reservation of land for existing and proposed new schools.</p>	KI35; KI38;	ST35; ST38;	AC35; AC38;	SP2; SP3; SP4; SP5;
Subdivision of Rural Land (DCP 3.4) (WAPC, 2016e);	<p>Rural zones are generally flexible and permit a range of agricultural, commercial and industrial land uses. This policy aims to support the range of land uses that are appropriate for rural settings, while limiting the loss of this land to incompatible uses such as housing.</p> <p>This policy sets out the principles that will be used by the WAPC in determining applications for the subdivision of rural land. It applies generally in relation to the LPS and Scheme 8 and specifically interms of development requirements on Rural, Priority Agriculture and Rural Residential zoned land.</p>	KI4; KI13; KI14;	T4; ST13; ST14;	AC4; AC13; AC14;	All
Industrial Subdivision (DCP 4.1) (WAPC, 1998b);	<p>This policy provides guidance on the matters considered by the WAPC when determining applications for industrial subdivision throughout the state. These include such matters as the design and shape of industrial lots, road layout, servicing and open space requirements.</p>	KI24	ST24;	AC24;	SP2; SP3;
Planning for Hazards and Safety (DCP 4.2) (WAPC, 1991);	<p>This policy seeks to provide guidance to planners, local authorities and developers in planning to prevent the occurrence of potentially hazardous events and to mitigate the effects of any such events, should they occur and in ensuring that the appropriate procedures are followed in the consideration of proposals. It seeks to:</p> <ul style="list-style-type: none"> • ensure that developments are reviewed with a view to maintaining appropriate public safety • maintain acceptably low risk exposure through appropriate planning procedures • provide guidelines for the consideration of the influence of existing risk levels in the planning process • provide for the development of industries and activities which are hazardous, but which are desirable for the benefit of the wider community 	KI34;	ST34;	AC34;	All

Guidelines

Local Planning Strategy

State planning framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Local Planning Strategy Guidelines (WAPC, 2021)	The guidelines outline the need and purpose of a local planning strategy, guiding principles, procedural steps and recommended content for a local planning strategy. Whilst the LPS was drafted before these guidelines were published, it is considered that the LPS is broadly in line with them.	N/A	N/A	N/A	N/A
State Coastal Planning Policy Guidelines (WAPC, 2013c)	This provides further guidance to assist in the implementation of SPP2.6 State Coastal Planning Policy. It provides guidance in relation to coastal hazard risk management and adaptation planning, infill development, coastal protection, foreshore reserves and management and community engagement. The guidelines have informed the LPS in a general way in relation to the Shire's coastal area.	KI12; KI37;	ST12; ST37;	AC12; AC37;	SP1; SP4; SP5;
Better Urban Water Management (WAPC, 2008b)	Better Urban Water Management has been designed to facilitate better management of urban water resources by ensuring an appropriate level of consideration is given to the total water cycle at each stage of the planning system. Based on the guidance in this document, the LPS identifies regional and local water management issues and helps set the objectives and policies for the protection and enhancement of these resources through the Local Planning Scheme No. 8, for example.	KI9; KI10; KI33;	ST9; ST10; ST33;	AC9; AC10; AC33;	All
Rural Planning Guidelines (WAPC, 2016d)	<p><i>State Planning Policy 2.5: rural planning (SPP 2.5) and Development Control Policy 3.4: subdivision of rural land (DC 3.4) govern planning decision-making for rural land in Western Australia. The Rural Planning Guidelines (Guidelines) provide explanatory detail to assist the implementation of SPP 2.5 and DC 3.4 and explain the context of the policies.</i></p> <p>The Guidelines include interpretation relevant to the subdivision of rural zoned land, for development proposals on rural zoned land and for rural land uses on land zoned for other purposes, in accordance with region and local scheme requirements.</p> <p>Consideration has been given in the LPS to the location of:</p> <ul style="list-style-type: none"> existing rural land uses that may require separation from proposed sensitive land uses such as intensive agriculture, wastewater treatment plants or mine sites remnant vegetation, waterways, wetlands or known environmental values that are on private land and therefore not reserved in the scheme and known tourist developments or tourist land uses such as holiday houses and bed and breakfast accommodation. 	KI4; KI7; KI13; KI14; KI17;	ST4; ST7; ST13; ST14; ST17;	AC4; AC7; AC13; AC14; AC17;	SP1;

Guidelines

Local Planning Strategy

State planning framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Planning in Bushfire Prone Areas (WAPC, 2018a)	<p>The Guidelines for Planning in Bushfire Prone Areas provide supporting information to assist in the interpretation of the objectives and policy measures outlined in SPP 3.7. They provide advice on how bushfire risk is to be addressed when planning, designing or assessing a planning proposal within a designated bushfire prone area.</p> <p>Specifically, they assist in:</p> <ul style="list-style-type: none"> determining appropriate land use planning in relation to bushfire prone areas across the State of Western Australia specifying the requirements to be met at each stage of the planning process and ensuring that necessary bushfire protection measures are incorporated into development. <p>The LPS identifies land for development in accordance with the advice in these guidelines, for example through the identification of Emergency Access points in development sites.</p>	KI15;	ST15;	AC15;	All
Road and Rail Noise Implementation Guidelines (WAPC, 2014c)	<p>These Guidelines assist with the implementation of <i>State Planning Policy 5.4 – Road and Rail Transport Noise and Freight Considerations in Land Use Planning</i>, providing supporting information on identifying, assessing and managing transportation noise impacts. It is intended for use by planners and proponents of future proposals where transport infrastructure and noise-sensitive development are in close proximity.</p> <p>In line with the guidelines, the LPS and Scheme 8 seek to:</p> <ul style="list-style-type: none"> Provide appropriate noise separation around transport areas of influence, appropriate segregation of noise-sensitive uses from major transport corridors; Identify suitable land use density options adjacent to major transport corridors. 	KI17; KI30;	ST17; ST30;	AC17; AC30;	SP1; SP2; SP3; SP4.
Acid Sulfate Soils Planning (WAPC, 2008a)	<p>The guidelines outline the range of matters which need to be addressed at various stages of the planning process to ensure that the subdivision and development of land containing acid sulfate soils is planned and managed to avoid potential adverse effects on the natural and built environment.</p> <p>The LPS takes account of the identified acid sulfate soils in the Shire (Map B3.16) in the proposed settlement pattern in the LPS.</p>	KI17;	ST17;	AC17;	All

Guidelines

Local Planning Strategy

State planning framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Tourism Planning (WAPC,2014e)	<p>The intent of the guidelines is to assist with the development of the tourism component of a local planning strategy. A tourism component of a local planning strategy provides local governments with a rationale for determining the future land allocation, planning controls and infrastructure needs for tourism, based on sound planning principles.</p> <p>The LPS is informed by these guidelines in a number of ways, but specifically in terms of tourist precincts, zoning, rural tourism, holiday homes and caravan parks.</p>	KI25; KI27;	ST25; ST27;	AC25; AC27;	All
Planning Safer Communities: Land Use Planning for Natural Hazards Manual 7 (AIDR, 2002)	<p>The purpose of the guidelines is to demonstrate how integrated land use planning can be used to reduce the impact of natural hazards and, where possible, avoid risk to life, property and environmental systems from natural hazards.</p>	KI15; KI16; KI17	ST15; ST16; ST17	AC15; AC16; AC17	All

Appendix A2: Local Planning Framework

Shire Corporate Strategies

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Strategic Community Plan 2021-2031 (SoC, 2021)	As outlined in Part 1, Section 2 of this Strategy, the Shire's Strategic Community Plan is the overarching strategy which sets the vision and objectives for the Local Planning Strategy. Given that it reflects the communities' aspirations for the Shire, it will continue to be the principal guide for all local plans and strategies	N/A	All	All	All
Corporate Business Plan 2021 – 2025 (SoC, 2022a)	The Shire of Capel Corporate Business Plan 2021-2025 is a rolling four-year service and project delivery plan. It has been developed to align with the Shire's Strategic Community Plan and provides the basis for the implementation of the various Actions prioritised by Council and the community. The purpose of the Plan is to demonstrate the operational capacity of the Shire to achieve the aspirations of the community through the Strategic Objectives and priorities established by Council. The production of a Local Planning Strategy and Scheme 8 is one of the key Actions set out in the Plan.	KI35; KI38;	ST3; ST33; ST35; ST36; ST37; ST38; ST39;	AC3; AC33; AC35; AC36; AC37; AC38; AC39;	All
Long Term Financial Plan 2021 – 2031 (SoC, 2022b)	The Long-Term Financial Plan is a key element of the Integrated Planning and Reporting Framework and enables Council to set priorities based on resourcing capabilities, for the delivery of short-, medium- and long-term community needs. The Long-Term Financial Plan (LTFP) is a ten-year rolling plan that informs the Corporate Business Plan, and from this planning process the annual budget is developed. The LTFP also indicates the long-term sustainability of the Shire of Capel and shows linkages between the specific plans and strategies adopted by Council. The LTFP includes a number of infrastructure projects relevant to planning, such as the creation of a new civic precinct, community centre and skate park in Dalzellup.	KI35; KI38;	ST3; ST33; ST35; ST36; ST37; ST38; ST39;	AC3; AC33; AC35; AC36; AC37; AC38; AC39;	All
Age Friendly Communities Strategy 2018 – 2022 (SoC, 2018a)	This report includes a strategic plan with objectives and actions to guide Council's decision-making in ensuring the Shire of Capel develops as an age-friendly community. The strategy included a number of recommendations of relevance to the Local Planning Framework, including improvements to pedestrian accessibility and public transport, and for planning policies to enable aged housing development and ancillary accommodation.	KI39;	ST39;	AC39;	SP2; SP3; SP4; SP5;

Local Planning Strategies

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Capel Shire Land Use Strategy (SoC, 1999)	<p>This Strategy outlines a set of objectives for particular Planning Units of the Shire that will be applied to land use allocation, as follows:</p> <ul style="list-style-type: none"> • Encourage the use of good agricultural land by economically active farmers and to maximise the productivity of the Shire • To provide for long term increase in settlement areas which provide a range of lifestyles within the context of a settlement strategy that will minimise effects on adjoining agricultural and industrial activities and the environment values of the District • Recognise the principles and objectives set out in the State Planning Strategy and the Bunbury/Wellington Region Plan and • Provide for compatible and sustainable use of land in keeping with the key existing land uses in the Shire including Agricultural Mining, Industry, Residential, Rural Residential and Public Reserves. <p>The Land Use Strategy has been used to guide structure planning, zoning and development in the Shire. It is reflected in but is replaced by this Local Planning Strategy.</p>	KI13; KI14;	ST1; ST2; ST3; ST4; ST5; ST6; ST21; ST25; ST27; ST7; ST8; ST9; ST10; ST11; ST12; ST13; ST14; ST16; ST31; ST33	AC1; AC2; AC3; AC4; AC5; AC6; AC21; AC25; AC27; AC7; AC8; AC9; AC10; AC11; AC12; AC13; AC14; AC29; AC16; AC30; AC33	All
Capel Shire Coastal Strategy (Belton-Taylforth, 2005)	<p>The Capel Coastal Strategy provides a management framework by identifying coastal management issues within the Shire and providing recommendations to address these. A range of coastal management strategies have been identified to provide a context for more detailed, location-based recommendations. The strategies provide a broad direction for coastal management over the entirety of the Shire's coastal areas. They provide guidance on issues such as coastal administration and tenure, environmental management, access and use conflict, facilities and signage/design.</p>	KI12;	ST12;	AC12;	SP1; SP4; SP5;

Local Planning Strategies

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
<p>Capel Shire Urban Landscape Strategy (SoC, 2011c)</p>	<p>This Strategy is a landscape policy for new urban areas (including industrial areas) to address landscape, amenity, environmental and management objectives. The Strategy applies to the urban areas of Dalyellup, Capel, Boyanup, Peppermint Grove Beach and Gelorup, including land in the Recreation and Public Purpose reserves. The Strategy also applies to land in the Shire that is subject to a rezoning or a structure plan that proposes urban development.</p> <p>The matters addressed in the Strategy relate to:</p> <ul style="list-style-type: none"> • Public open space (parks and reserves) and new subdivision roads • Development of privately owned land - commercial; tourist; industrial; residential; and public purpose development and • Existing road and street verges (public nature strips) in urban areas. 	KI8;	ST7; ST8; ST9; ST12; ST15; ST18; ST37;	AC7; AC8; AC9; AC12; AC15; AC18; AC37;	SP2; SP3; SP4; SP5;
<p>Capel Shire Drainage Strategy (Emerge, 2018)</p>	<p>The Strategy investigates the Shire values, threats and challenges to drainage management in the Shire, and provides a management toolkit outlining potential Water Sensitive Urban Design (WSUD) measures, engineering measures and asset management tools. A risk management-based approach was taken to identify locations within the Shire with the most values, where the threats are greatest from a drainage management perspective and identified areas of priority for future works.</p> <p>The key action items to be implemented include:</p> <ul style="list-style-type: none"> • Update the Shire's asset register with all available drainage management information • Prepare a District Water Management Strategy (DWMS) for Boyanup • Prepare a rural drainage policy to manage runoff from rural properties • Updating the existing water management strategies for Capel and Gelorup and • Update the Shire's local planning scheme provisions, policies, guidelines and design standards, or develop these where none exists. 	KI9; KI33;	ST9; ST10; ST16; ST33;	AC9; AC10; AC16; AC33;	All

Local Planning Strategies

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Capel Shire Trails Strategy (Transplan, 2009)	The Trails Master Plan sets out a simple project-focused program of activity designed to deliver the maximum benefits to the widest cross-section of the community through facilitating opportunities for walking, cycling and canoeing. It does not focus solely on developing new trails but recognises the existence of a number of trails already in the Shire (Map B4.1).	KI37;	ST36; ST37	AC36; AC37;	All
Boyanup Townsite Strategy (SoC, 2010)	This Strategy sets out the key long-term planning directions for the Boyanup townsite. In particular, it establishes objectives, policy statements and recommended actions associated with residential, community, environmental, recreation, social, economic and other issues over the next 25+ years. These outcomes are represented in the Boyanup Townsite Structure Plan which gives direction on the sustainable size, form and nature of the town (Map B1.5). This structure plan and the other outcomes of the Townsite Strategy are the key basis upon which the elements of the Local Planning Strategy and Scheme 8 that relate to Boyanup are derived. For example, the Reserves, Zones and Special Control Areas identified in Scheme 8 largely reflect the Boyanup Townsite Structure Plan.	KI2; KI21; KI24;	ST1; ST2; ST3; ST6; ST21; ST22; ST24; ST9; ST16; ST30; ST33; ST36; ST37;	AC1; AC2; AC3; AC6; AC21; AC22; AC24; AC9; AC16; AC30; AC33; AC36; AC37;	SP2;
Boyanup Public Open Space Strategy (SoC, 2011b)	This Strategy seeks to create a linked network of functional and attractive public open space within Boyanup that will broaden recreation opportunities for all sectors of the community and satisfy open space needs in an equitable and sustainable manner. The Strategy is a framework document to guide the provision and development of all POS within Boyanup between 2011 and 2021. It includes an assessment of recreation needs, identifies any gaps in provision, and provides guidance on the planning and development of public open space and facilities.	KI36;	ST36; ST37; ST38	AC36; AC37; AC38	SP2;
Boyanup Transport Infrastructure Study (SoC, 2015)	This study seeks to implement some of the recommendations of the Boyanup Townsite Strategy in terms of ensuring better management of heavy and regional traffic and improvements in local traffic and pedestrian safety and the amenity of the town centre. The Study recommends a number of key actions related to South Western Highway improvements, intersection upgrades, a bypass road, a shared path network, parking provision and the use of railway reserve.	KI30	ST30; ST33;	AC30; AC33;	SP2;

Local Planning Strategies

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Capel Townsite Strategy (SoC, 2008)	<p>This Strategy sets out the key long-term planning directions for the Capel townsite. In particular it establishes objectives, policy statements and recommended actions associated with residential, community, environmental, recreation, social, economic and other issues over the next 10-15 years.</p> <p>These outcomes are represented in the Capel Townsite Structure Plan which gives direction on the sustainable size, form and nature of the town (Map B1.6). This structure plan and the other outcomes of the Townsite Strategy are the key basis upon which the elements of the Local Planning Strategy and Scheme 8 that relate to Capel are derived. For example, the Reserves, Zones and Special Control Areas identified in Scheme 8 largely reflect the Capel Townsite Structure Plan.</p>	KI2; KI21; KI24;	ST1; ST2; ST3; ST6; ST21; ST22; ST24; ST9; ST16; ST30; ST33; ST36; ST37;	AC1; AC2; AC3; AC6; AC21; AC22; AC24; AC9; AC16; AC30; AC33; AC36; AC37;	SP3;
Capel Townsite Public Open Space Strategy (SoC, 2011d)	This Strategy seeks to create a linked network of functional and attractive public open space within Capel that will broaden recreation opportunities for all sectors of the community and satisfy open space needs in an equitable and sustainable manner. The Strategy is a framework document to guide the provision and development of all POS within Capel between 2011 and 2021. It includes an assessment of recreation needs, identifies any gaps in provision, and provides guidance on the planning and development of public open space and facilities.	KI36;	ST36; ST37; ST38	AC36; AC37; AC38	SP3;
Capel Townsite Transport Study (DVC, 2011)	This study seeks to implement some of the recommendations of the Capel Townsite Strategy in terms of ensuring better management of heavy and regional traffic and improvements in local traffic and pedestrian safety and the amenity of the town centre. The Study recommends a number of key actions related to improvements to certain key roads and intersections, the rerouting of heavy haulage along Goodwood Road and Spurr Street, a shared path network and the use of railway reserve.	KI30;	ST30; ST33;	AC30; AC33;	SP3;

Local Planning Strategies

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Capel Townsite District Water Management Strategy (Cardno, 2013)	This strategy seeks to implement some of the recommendations of the Capel Townsite Strategy in terms of providing guidance on the management of drinking water, groundwater, storm water and wastewater and in the preparation of Local and Urban Water Management Strategies. It also seeks to demonstrate that the water resources in areas to be developed can be managed in such a way that the risks posed by development and the surface water and groundwater characteristics of the proposed development are acceptable.	KI9; KI33;	ST9; ST10; ST16; ST33;	AC9; AC10; AC16; AC33;	SP3;
Peppermint Grove Beach Land Use Strategy (SoC, 2013b)	This Strategy provides the strategic direction for land use planning in Peppermint Grove Beach to 2031 (Map B1.7). The Land Use Strategy identifies that Peppermint Grove Beach has been subdivided and developed almost to its ultimate capacity, apart from some additional subdivision north of Hayfield Drive. In view of the physiographic constraints evident (including landform, wetlands and access) the Strategy recommends that no further residential zoning occurs other than minor amendments to reflect already approved residential development outcomes.	KI23; KI25;	ST1; ST23; ST25; ST7; ST12; ST33; ST37;	AC1; AC23; AC25; AC7; AC12; AC33; AC37;	SP5;
Shire of Capel Bushfire Hazard Level Assessment (SoC, 2022)	<p>This Bushfire Hazard Level (BHL) assessment has been prepared to assist in the formulation of the Shire of Capel Local Planning Strategy and Local Planning Scheme No 8. State Planning Policy 3.7 Planning in Bushfire Prone Areas requires that the preparation of the Local Planning Strategy should include high level consideration of relevant bushfire hazards when identifying or investigating land for future development.</p> <p>The objectives for this BHL assessment are:</p> <ul style="list-style-type: none"> to examine those areas which were identified for development in the earlier draft of the Local Planning Strategy, to determine their suitability for development. to identify areas that require a more detailed analysis before any development / subdivision occurs. to identify any bushfire management issues and any spatial impact of such issues which should be considered in the preparation of a structure plan; and to document how the recommendations of this BHL assessment can be implemented in the relevant planning stages. 	KI15;	ST15;	AC15;	SP2; SP3; SP4; SP5;

Local Planning Schemes and Statutory Tools

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Capel Shire Town Planning Scheme No.3 (SoC, 1976)	TPS 3 relates only to the northern part of Gelorup and deals with the provision of land for future public use as reserves and with coordinating infrastructure and contributions to support development. It is not a comprehensive town planning scheme with zones or special control areas and, as such, sits outside of the Strategy and Scheme 8.	KI35;	ST35;	AC35;	SP4;
Capel Shire Town Planning Scheme No.7 (SoC, 1998d)	This is a comprehensive, Shire-wide planning scheme dealing with local reserves, zones and development control. Scheme 8 is a review and replacement of TPS7.	All	All	All	All
Capel Shire Development Contribution Plan (SoC, 2020)	<p>The Development Contribution Plan for the Shire (<i>the DCP</i>) is part of a comprehensive local planning framework that seeks to more equitably fund community infrastructure and facilities and adequately provide for the current and future needs of the community.</p> <p>The DCP has been prepared to:</p> <ul style="list-style-type: none"> • identify the required community infrastructure, facilities and services to reflect growth • establish a mechanism to achieve the equitable sharing of costs for the provision of the facilities and services required by growth and • ensure ongoing access to an appropriate range of community facilities and services for residents and visitors. <p>The DCP, in conjunction with enabling provisions in the local planning scheme, enables the Shire to seek contributions from development proponents to assist with the provision of community facilities and services that are reasonably required as a result of ongoing subdivision and development in the urban areas of the Shire.</p>	KI35; KI36;	ST3; ST35;	AC3; AC35;	SP3; SP4;
Capel Shire Heritage List (SoC, 2018b)	<p>The <i>Heritage Act 2018</i> requires that local authorities prepare, and regularly review, a Local Government Heritage Survey. The survey is considered to be the foundation of sound local heritage planning and identifies all places within the local government area which are considered to have cultural heritage value.</p> <p>Those places of heritage value within Capel are identified on the Shire of Capel Heritage List, adopted in 2018.</p>	KI6;	ST6;	AC6;	All

Local Planning Schemes and Statutory Tools

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Ancillary Dwellings	This Local Planning Policy (LPP) provides guidance on the use and siting of ancillary dwellings, particularly within rural areas.	KI1;	ST1;	AC1;	N/A
Community Engagement	This LPP provides further guidance on how the Shire engages and collaborates with local communities in the production of strategic planning documents and how it operates its planning service in an open and accountable way.	KI28; KI29; KI41; KI42;	ST28; ST29; ST41; ST42;	AC28; AC29; AC41; AC42;	N/A
Extractive Industries	The LPP provides guidance on Shire requirements and process in dealing with proposals for Industry – Extractive land uses.	KI11; KI17;	ST11; ST17;	AC11; AC17;	SP1;
Heritage Places	Places with identified cultural heritage significance within the Shire of Capel are listed on the Local Government Heritage Survey, Heritage List and/or State Register of Heritage Places. The purpose and intent of this Local Planning Policy is to provide guidance on development assessment processes for these places of cultural heritage significance.	KI6	ST6	AC6	All
Home Business	This LPP provides further guidance on the use of residential properties for commercial purposes, including home business, home occupation, home office, home store and family day care land use classifications.	KI26;	ST26;	AC26;	N/A
Landscaping	This LPP provides guidance on the amount and type of landscaping required for different types of development.	KI8;	ST8;	AC8;	N/A
Minor Structures	This LPP provides guidance on the use and siting of minor structures such as sheds and outbuildings, particularly within rural areas.	N/A	N/A	N/A	N/A
Rural Pursuits	This LPP provides further guidance on the use of land for Rural Pursuits/Hobby Farms and the management of animals within residential or rural residential areas.	KI2; KI4;	ST2; ST4	AC2; AC4;	SP2; SP3; SP4; SP5
Short-stay Accommodation	This LPP provides further guidance on the use of properties for short-stay visitor accommodation such as bed and breakfasts, holiday houses, hotels, serviced apartments and tourist development.	KI25;	ST25;	AC25;	All
Signage and Advertising	This LPP provides guidance on the location and design of different types of signage and advertisements in different zones within the Shire.	KI21;	ST21;	AC21;	N/A
Significant Trees	This LPP provides advice on the operation of the Register of Significant Trees and guidance on dealing with development applications affecting significant trees.	KI8;	ST8;	AC8;	All

Local Planning Schemes and Statutory Tools

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Sustainable Design	This LPP provides guidance on improving sustainability and energy efficiency in the design of residential and non-residential buildings. It also seeks to protect residential amenity in terms of emissions such as noise, odour, fumes, etc., particularly in relation to mixed use development.	KI13; KI18; KI22; KI23	ST18; ST22;	AC18; AC22;	N/A
Tiny Houses	This LPP provides further guidance on the development of 'Tiny Houses' of less than 120sqm in area, particularly in terms of ensuring appropriate residential amenity.	KI1;	ST1;	AC1;	N/A
Vehicle Access and Parking	This LPP provides guidance on dealing with vehicle parking to serve a development including minimum standards for parking spaces.	N/A	N/A	N/A	N/A

Structure Plans

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Boyanup East (TME, 2017)	This Local Structure Plan (LSP) seeks to create a major new community as an eastwards expansion of the Boyanup townsite, yielding approximately 1700 residential lots, an ultimate population of 4000 people with new open space, school and local centre.	KI1; KI2; KI3;	ST1; ST2; ST3;	AC1; AC2; AC3;	SP2;
Capel Central (SoC, 2011a)	The Capel Central Structure Plan seeks to guide the subdivision and development of three residential precincts to the west of Capel Town Centre.	KI1; KI2; KI3;	ST1; ST2; ST3;	AC1; AC2; AC3;	SP3;
Lots 225 & 226 Range Road Capel (Harley Dykstra, 2014)	This LSP is to guide a small subdivision of approximately 64 residential lots including open space on the site of the Shire's works depot in south west Capel.	KI1; KI2; KI3;	ST1; ST2; ST3;	AC1; AC2;AC3;	SP3;
South East Capel (TME, 2014b)	This LSP seeks guide a major expansion of the Capel townsite to the southeast including approximately 500 residential lots including a retirement village and public open space.	KI1; KI2; KI3; KI39;	ST1; ST2; ST3; ST39;	AC1; AC2; AC3; AC39;	SP3;
Portion of Lot 90/91 Vickery Road Elgin (SoC, 2009)	This LSP guides subdivision and use of the lot for a model aircraft facility	KI14;	ST14;	AC14;	SP1;

Structure Plans

Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Loc 871 Goodwood Road & Lot 1181 Hawley Road, Capel (TME, 2008)	This LSP guides the subdivision and development of a southern extension to the Capel townsite for approximately 250 residential lots and public openspace.	KI1; KI2; KI3;	ST1; ST2; ST3;	AC1; AC2; AC3;	SP3;
Lot 19 Weld Road, Capel (Planscape, 2009)	This LSP guides a small subdivision of 35 residential lots on the north side of Capel River	KI1; KI2; KI3;	ST1; ST2; ST3;	AC1; AC2; AC3;	SP3;
Lot 2 Prowse Road, Capel (Harley Dykstra, 2019)	This LSP guides a small subdivision of 24 residential lots in the south west of the Capel townsite.	KI1; KI2; KI3;	ST1; ST2; ST3;	AC1; AC2; AC3;	SP3;
Dalyellup Beach Estate (TME, 2015)	The Dalyellup Beach Estate LSP guides the subdivision and development of a major suburban expansion on the coast in Dalyellup providing for around 3000 dwellings, a primary school, public open space, foreshore reserve, local centre and a tourism precinct.	KI1; KI2; KI3; KI23; KI25; KI12; KI33; KI34; KI35; KI36; KI37;	ST1; ST2; ST3; ST23; ST25; ST12; ST33; ST34; ST35; ST36; ST37	AC1; AC2; AC3; AC23; AC25; AC12; AC33; AC34; AC35; AC36; AC37;	SP4;
Dalyellup East (TME, 2014a)	The Dalyellup East LSP guides the subdivision and development of a major suburban expansion along the Bussell Highway in Dalyellup providing for around 2000 dwellings, three schools, public open space, sporting facilities, district centre and two aged care and lifestyle facilities.	KI1; KI2; KI3; KI23; KI33; KI35; KI36; KI37; KI38; KI39;	ST1; ST2; ST3; ST23; ST33; ST35; ST36; ST37; ST38; ST39;	AC1; AC2; AC3; AC23; AC33; AC35; AC36; AC37; AC38; AC39;	SP4;
Dalyellup Aged Persons Accommodation Site (TME, 2010)	This LSP guides the development of a seniors living village within Dalyellup East incorporating community housing, aged care, independent living and communal facilities.	KI1; KI2; KI3; KI39;	ST1; ST2; ST3; ST39;	AC1; AC2; AC3; AC39;	SP4;

Structure Plans

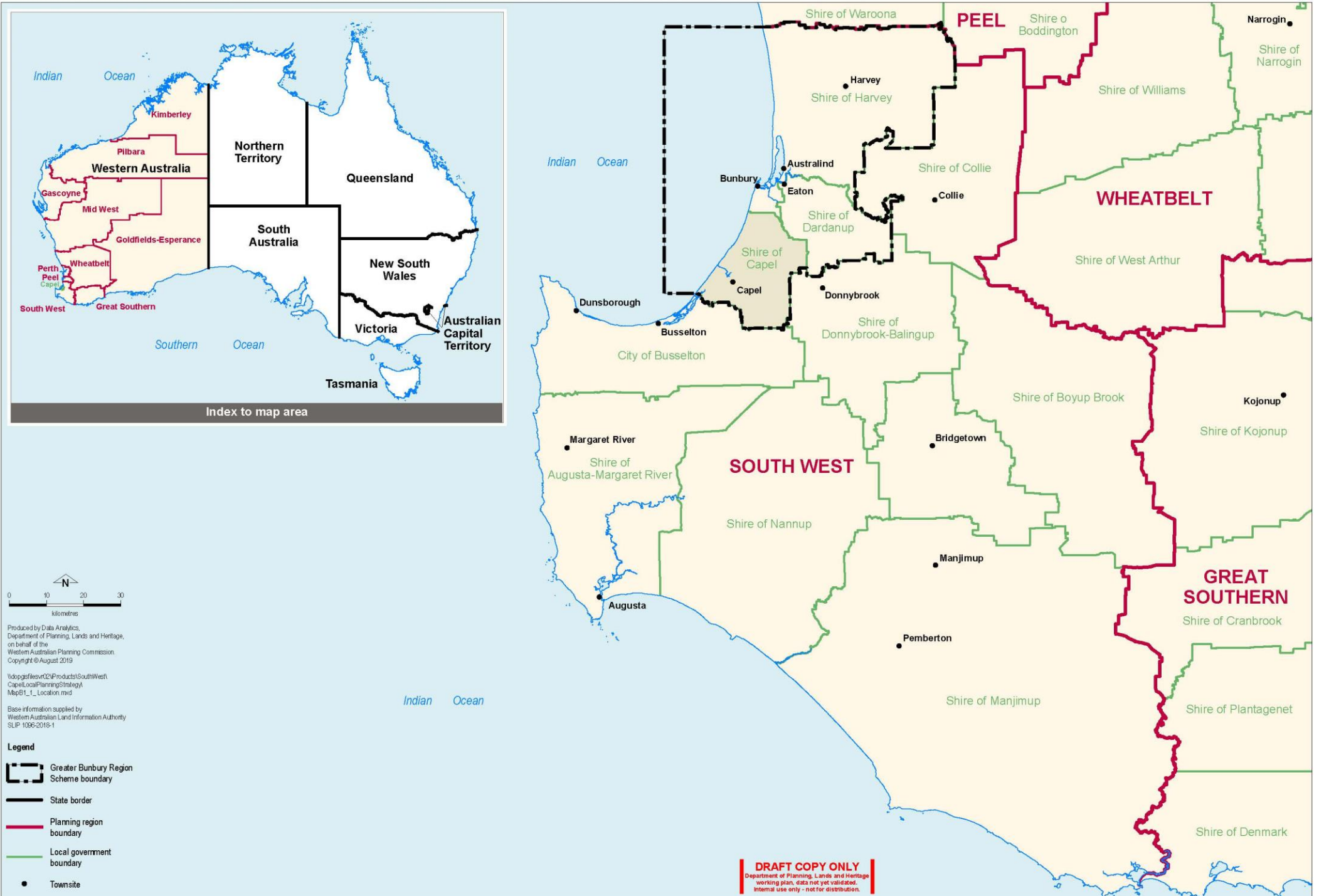
Local Planning Strategy

Local Planning Framework	Summary	Key Issue	Strategy	Action	Strategic Plan
Dalyellup District Centre (TME, 2012)	<p>This Activity Centre Plan seeks to guide the development of Dalyellup District Centre around a traditional main shopping street with pedestrian-friendly streets lined by attractive buildings and with convenient, comfortable and attractive public spaces. It will contain shops, offices, showrooms, cafés, restaurants and community activities located near each other to enhance the vitality and attractiveness of the centre. A variety of housing types, including housing mixed with office uses, will offer a range of housing choice. The centre comprises five precincts as follows:</p> <ul style="list-style-type: none"> • main street retail core • business precinct • civic and community precinct • residential and mixed-use precinct and • residential precinct. 	KI1; KI2; KI3; KI19; KI22; KI33; KI38; KI39;	ST1; ST2; ST3; ST19; ST22; ST33; ST38; ST39;	AC1; AC2; AC3; AC19; AC22; AC33; AC38; AC39;	SP4;
Dalyellup South (LB Planning, 2018)	The Dalyellup South LSP guides the subdivision and development of a major suburban expansion to the south of Dalyellup providing for around 1100 dwellings, 2800 people, a primary school, public open space, sporting facilities, and a local centre.	KI1; KI2; KI3; KI23; KI33; KI35; KI36; KI37;	ST1; ST2; ST3; ST23; ST33; ST35; ST36; ST37	AC1; AC2; AC3; AC23; AC33; AC35; AC36; AC37;	SP4;
Gelorup North West (Martin Richards Town Planning, 2015)	This LSP guides a small subdivision of 30 residential lots in Gelorup.	KI1; KI2; KI3;	ST1; ST2; ST3;	AC1; AC2; AC3;	SP4;
Lots 11, 12 and 70 Fisherman's Road, Stratham (TME, 2011)	This LSP guides a small subdivision of 30 rural residential lots on the south side of Stratham.	KI4;	ST4;	AC4;	SP1;
Lots 900 & 101 Loretta Ave Pt Lots 2 & 901 Bussell Hwy (RPS, 2015)	This Activity Centre Plan guides the commercial development of a site on Bussell Highway in Gelorup.	KI23; KI30;	ST23; ST30;	AC23; AC30;	SP4
Lot 104 & Pt Lot 16 Bussell Highway Gelorup (OKArch, 2010).	This Activity Centre Plan guides the commercial development of a site on Bussell Highway in Gelorup.	KI23; KI30;	ST23; ST30;	AC23; AC30;	SP4

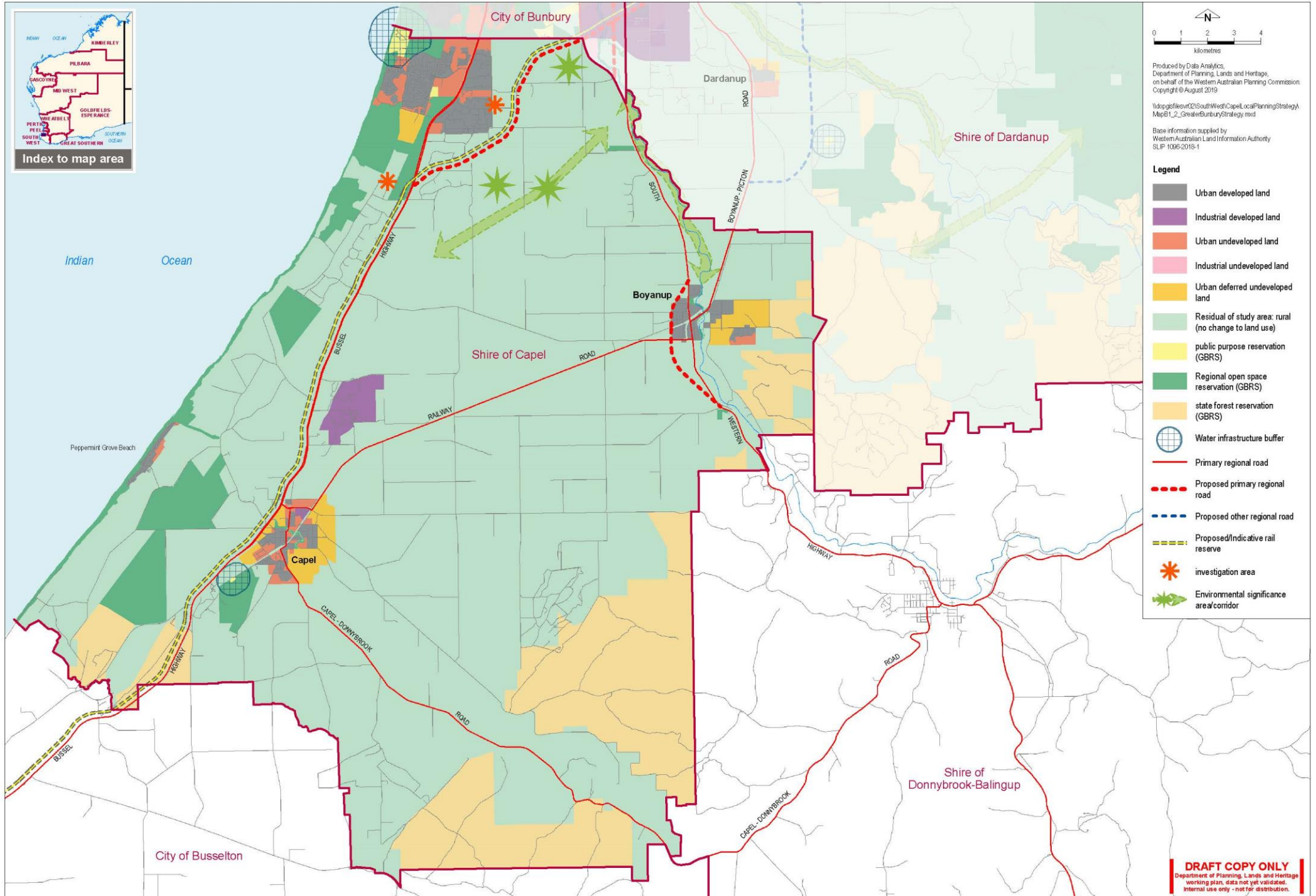
Appendix B: Local Profile Maps





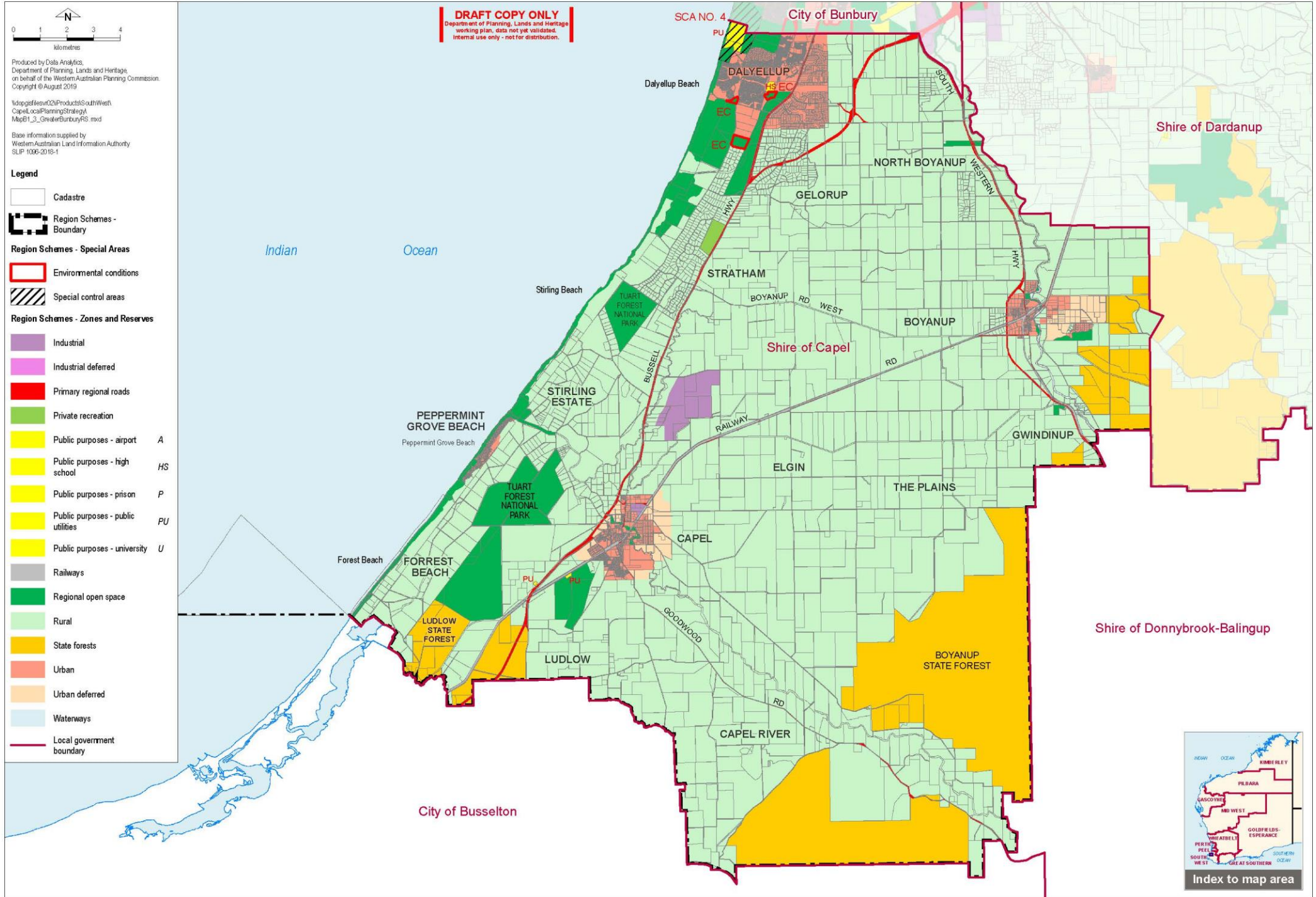


Map B1.1 – Location

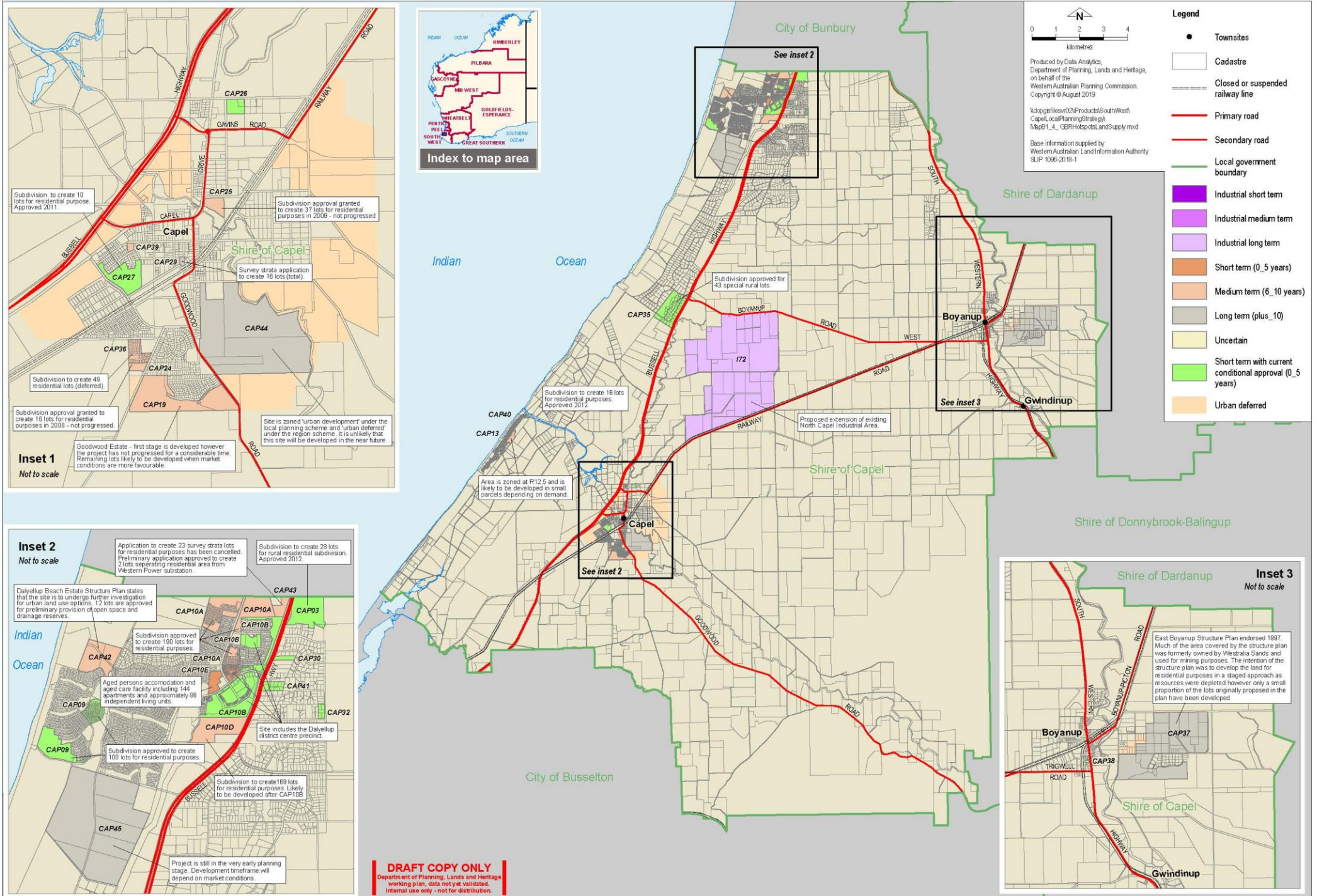


Map B1.2 - Greater Bunbury Strategy Map - Caple

Shire of Capel Local Planning Strategy

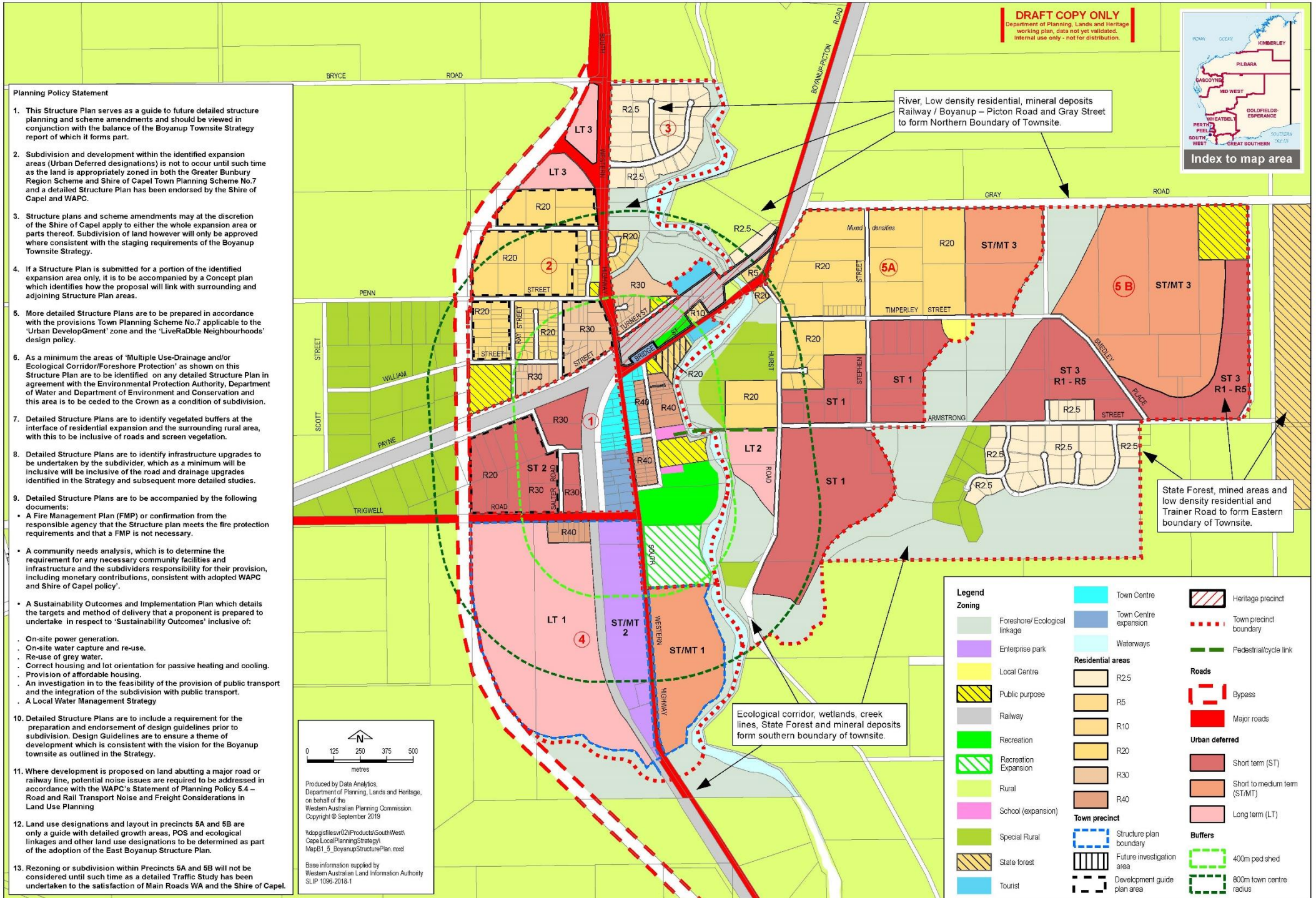


Map B1.3 - Greater Bunbury Region Scheme Map - Capel

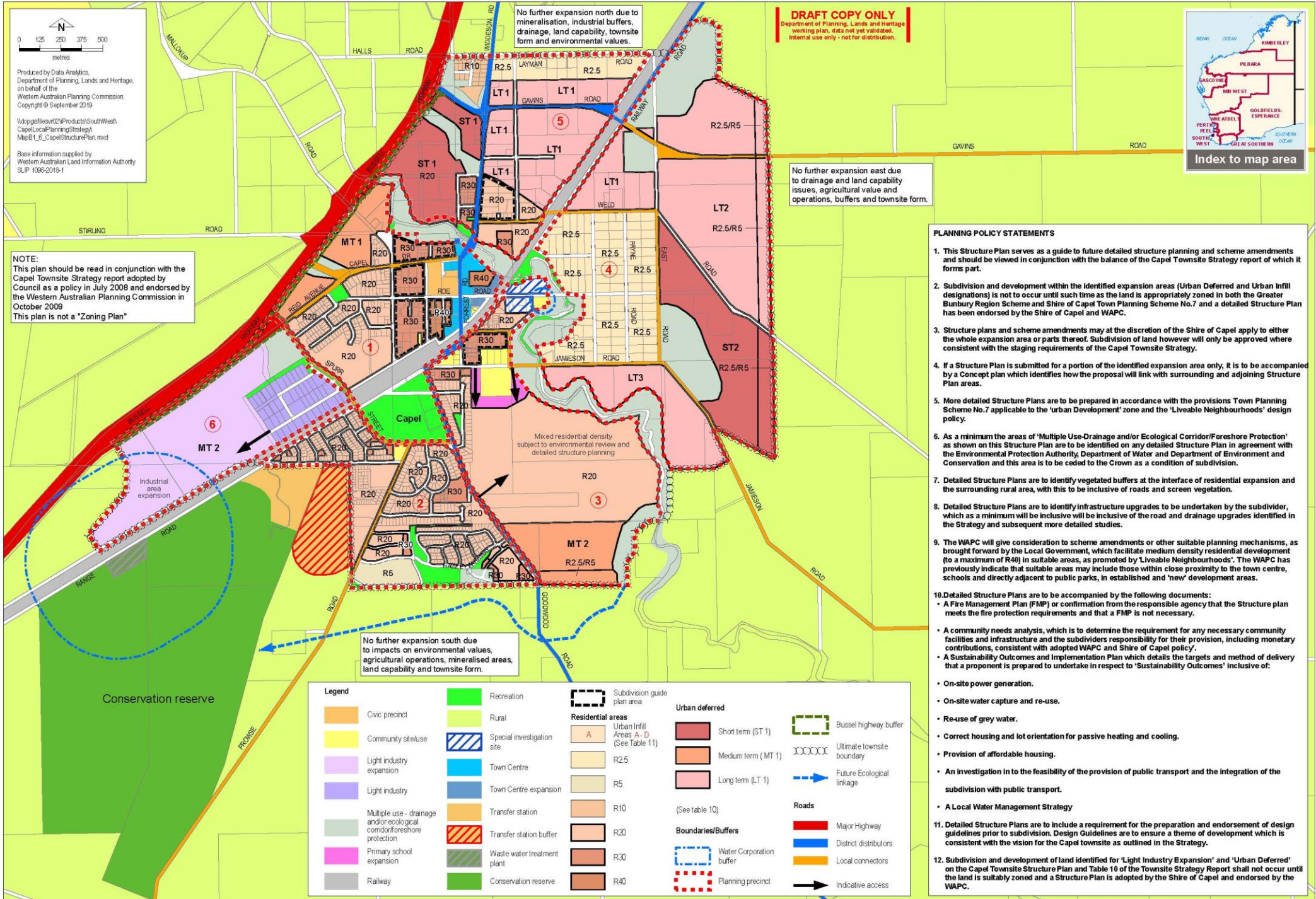


Map B1.4 – Greater Bunbury Regional Hotspots Land Supply - Capel

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Map B1.5 - Boyanup Townsite Structure Plan



Map B1.6 - Capel Townsite Structure Plan

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 working plan, data not yet validated.
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Planning Policy Statements

1. This Structure Plan is a guide to future land use and development in the locality and should be read in conjunction with the provisions of the Peppermint Grove Beach Land Use Strategy.
2. Future subdivision and development is to be limited to the identified Precincts and outcomes identified in the Town Planning Scheme and the Peppermint Grove Beach Land Use Strategy.
3. Subdivision in Precincts 1 and 2 for residential purposes shall be generally in accordance with an adopted Local Structure Plan and/or an approved plan of subdivision.
4. Subdivision and development is to address mosquito habitat and any health issues related to the adjacent EPP wetlands. If necessary, a Mosquito Management Plan is to be prepared by the proponent and implemented to the satisfaction of the Shire - development proposals are to incorporate mechanisms to ensure that management of mosquito habitat and breeding sites is addressed in the design and ongoing management of urban drainage systems and wetlands.
5. A Fire Management Plan may be required as a condition of subdivision to address the management of any identified fire risk in the locality.
6. Development of Precincts 3 and 4 shall be in accordance with an adopted Development Guide Plan prepared pursuant to the Town Planning Scheme and the Peppermint Grove Beach Land Use Strategy.
7. Subject to the provision of clear justification and adequate controls being incorporated into the Development Guide Plan for Precinct 3 relating to the coordination of development, the Shire will consider subdivision of the land into two lots.
8. Prior to the approval of development within Precincts 3 and 4 a detailed Landscape Plan shall be prepared to address sustainable landscaping proposals in accordance with the Shire's Urban Landscape Strategy.
9. Prior to the approval of development within Precincts 2, 3 and 4, the Shire may require the preparation of 'design guidelines' (reflecting the principles of the 'Visual Landscape Planning in Western Australia' manual) to outline how the development is to be addressed in terms of design themes and coordination of staging.
10. Development proposals for Precincts 2, 3 and 4 are to address the provision of dual use paths which provide for connectivity to community focal nodes and the existing path network.



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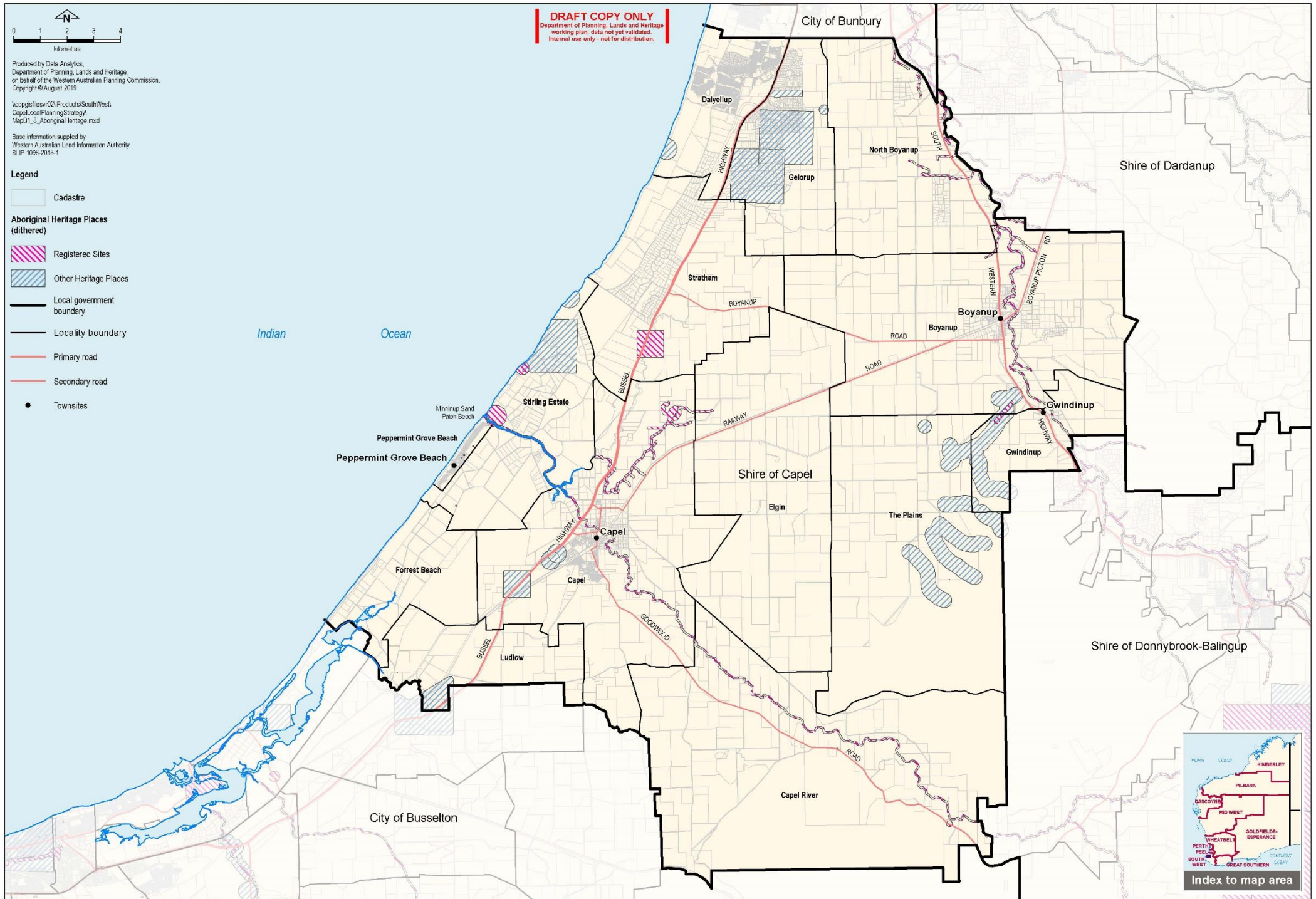
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Base information supplied by
 Western Australian Land Information Authority
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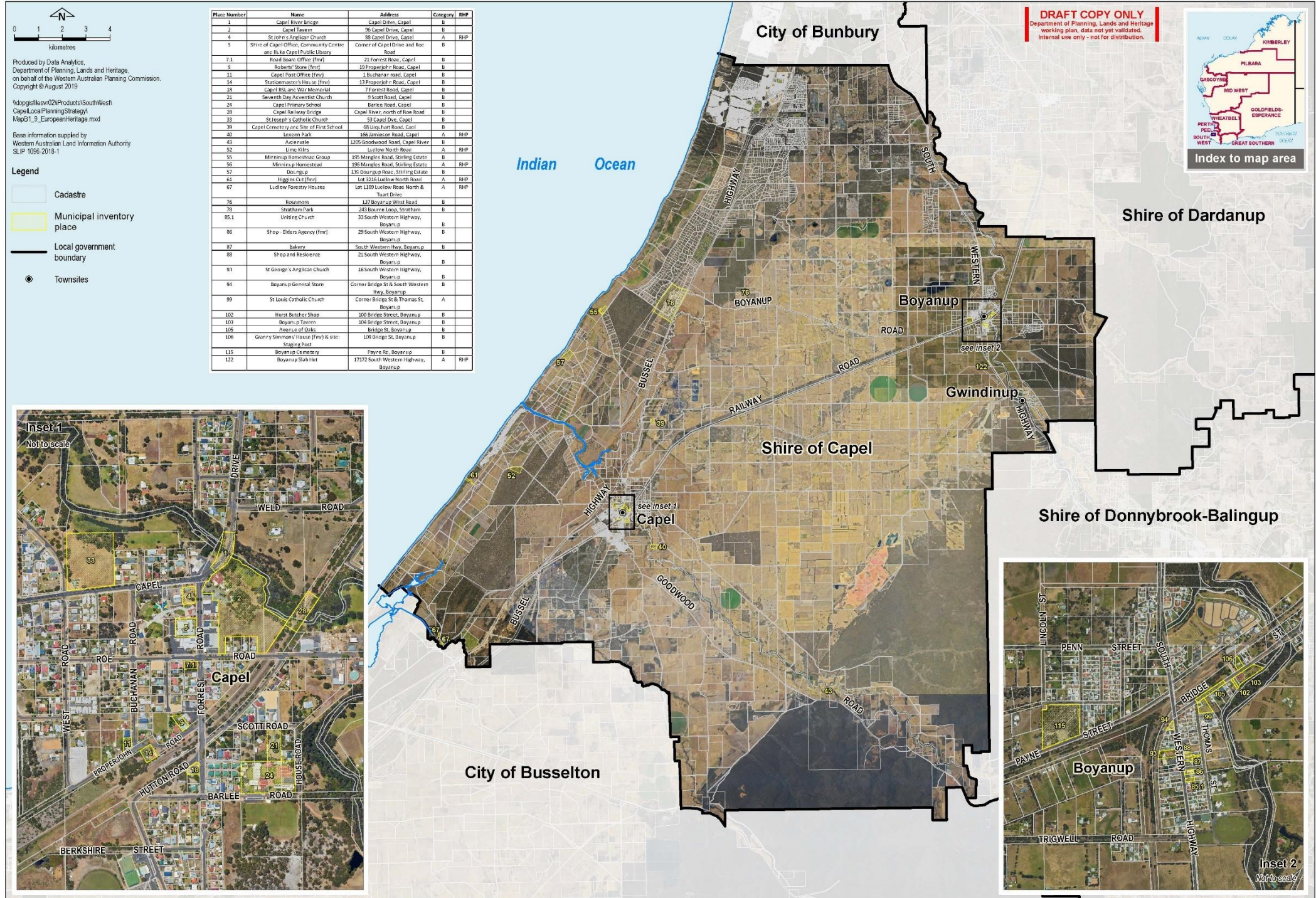
- 1 Planning precinct
- Reserve**
 - Regional open space
 - Recreation
 - Public purpose
- Zones**
 - Residential
 - Special use
 - Rural

Map B1.7 – Peppermint Grove Beach Structure Plan

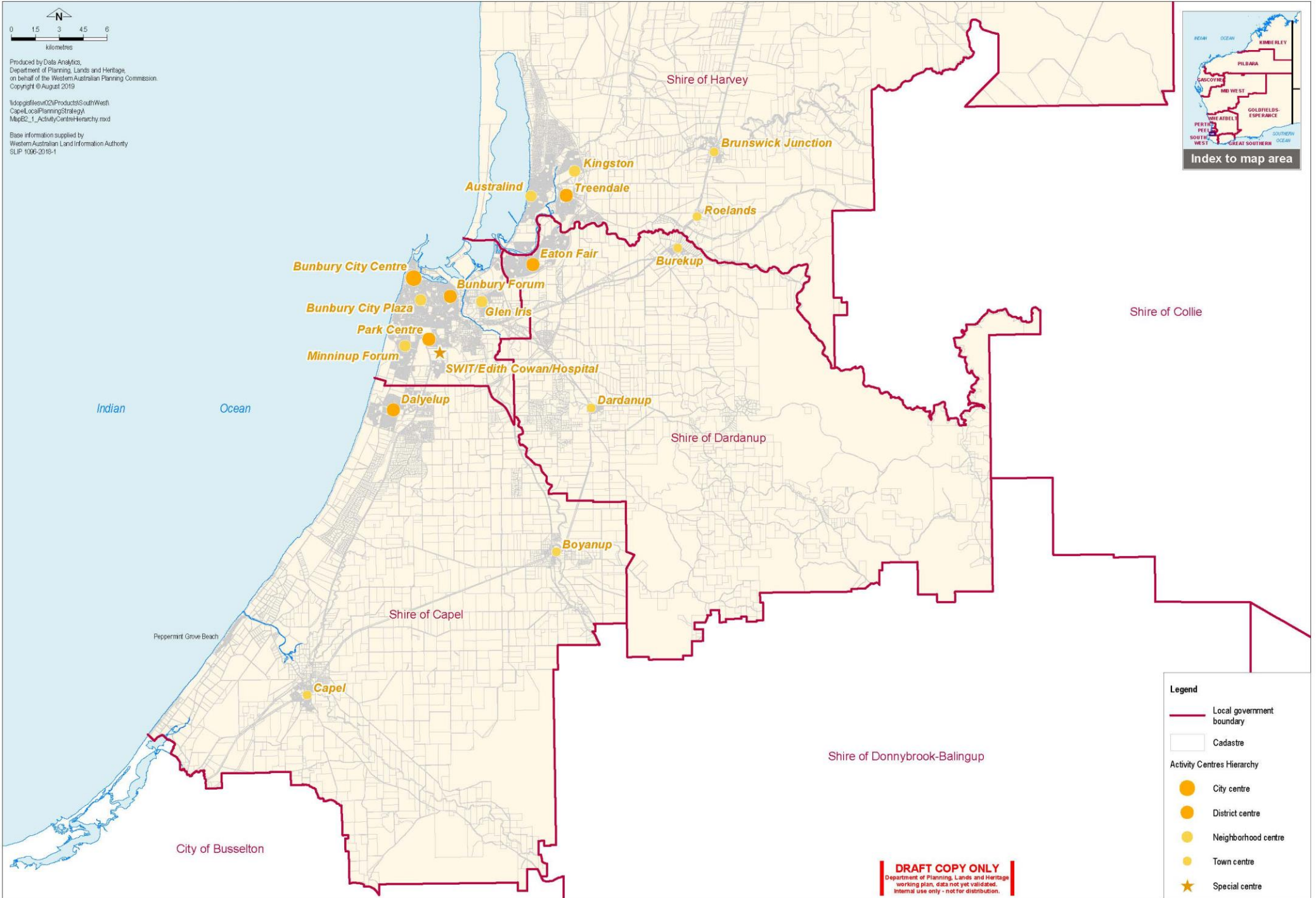


Map B1.8 - Aboriginal Heritage

Shire of Capel Local Planning Strategy



Map B1.9 - European Heritage



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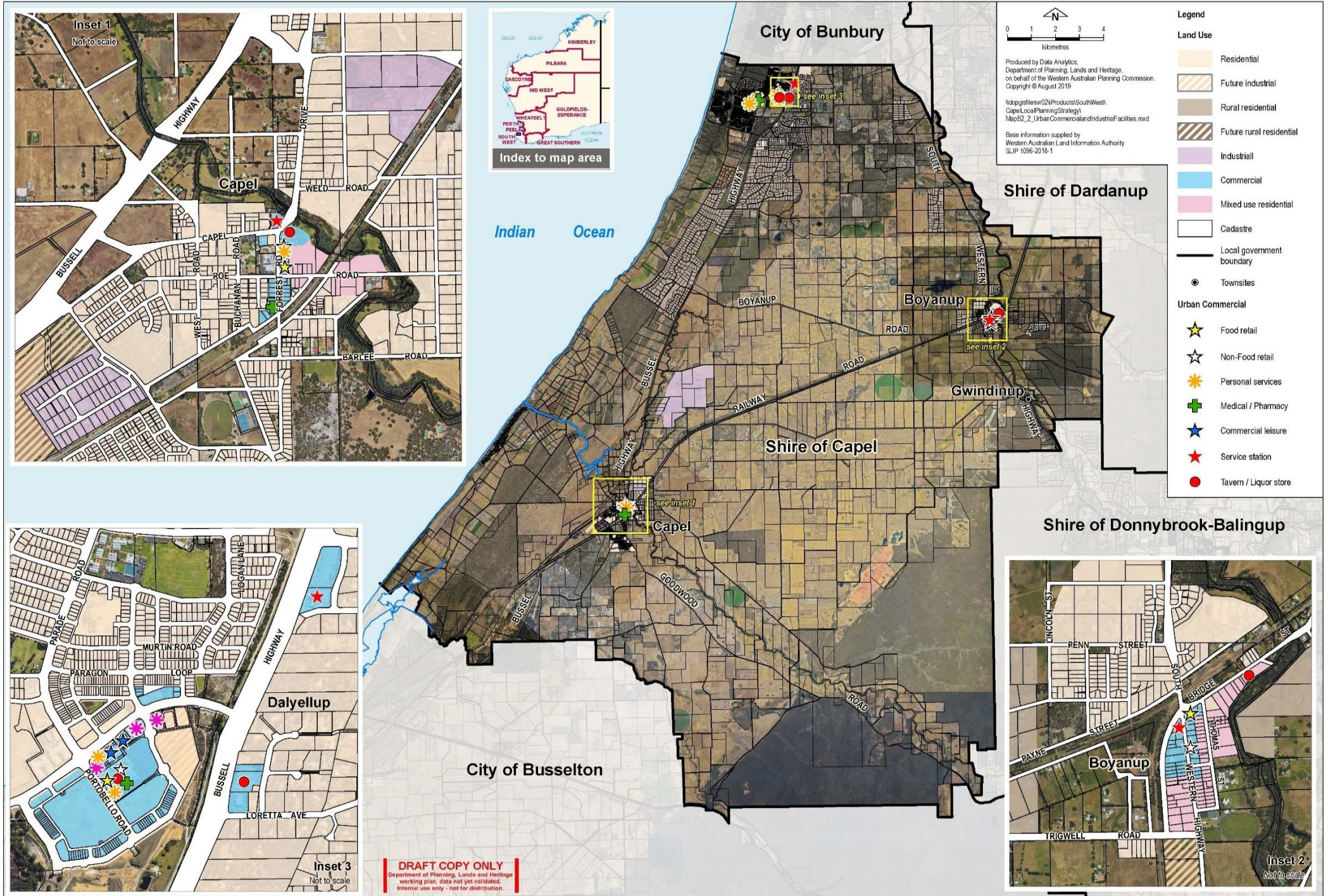
- Local government boundary
- Cadastre

Activity Centres Hierarchy

- City centre
- District centre
- Neighborhood centre
- Town centre
- ★ Special centre

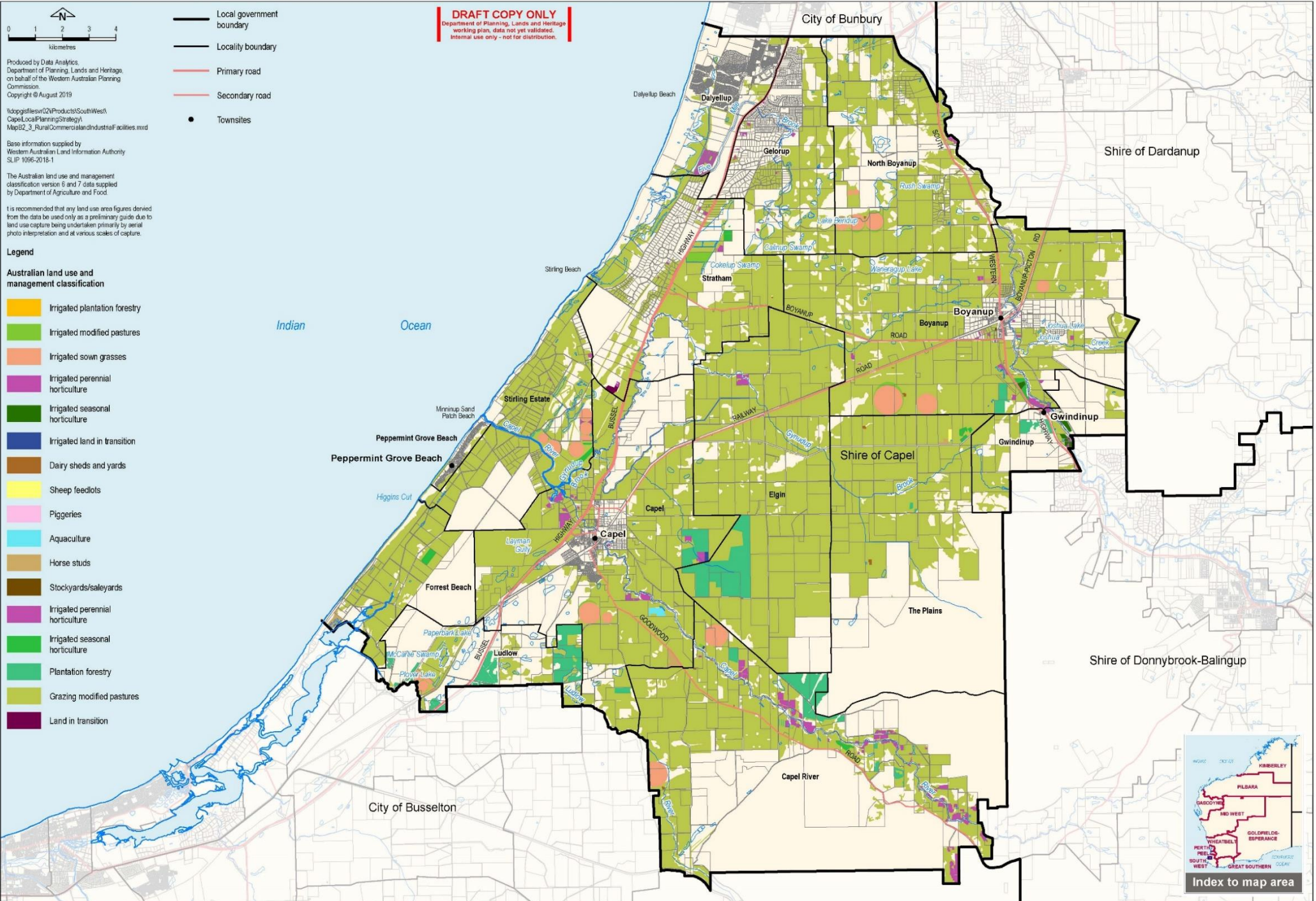
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Map B2.1 Activity Centre Hierarchy (from Greater Bunbury Activity Centres policy)



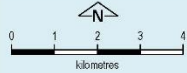
Map B2.2 – Urban Commercial and Industrial Facilities

Shire of Capel Local Planning Strategy



Map B2.3 – Rural Commercial and Industrial Facilities

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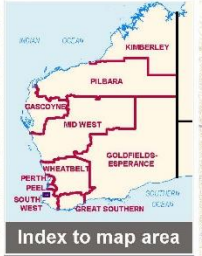
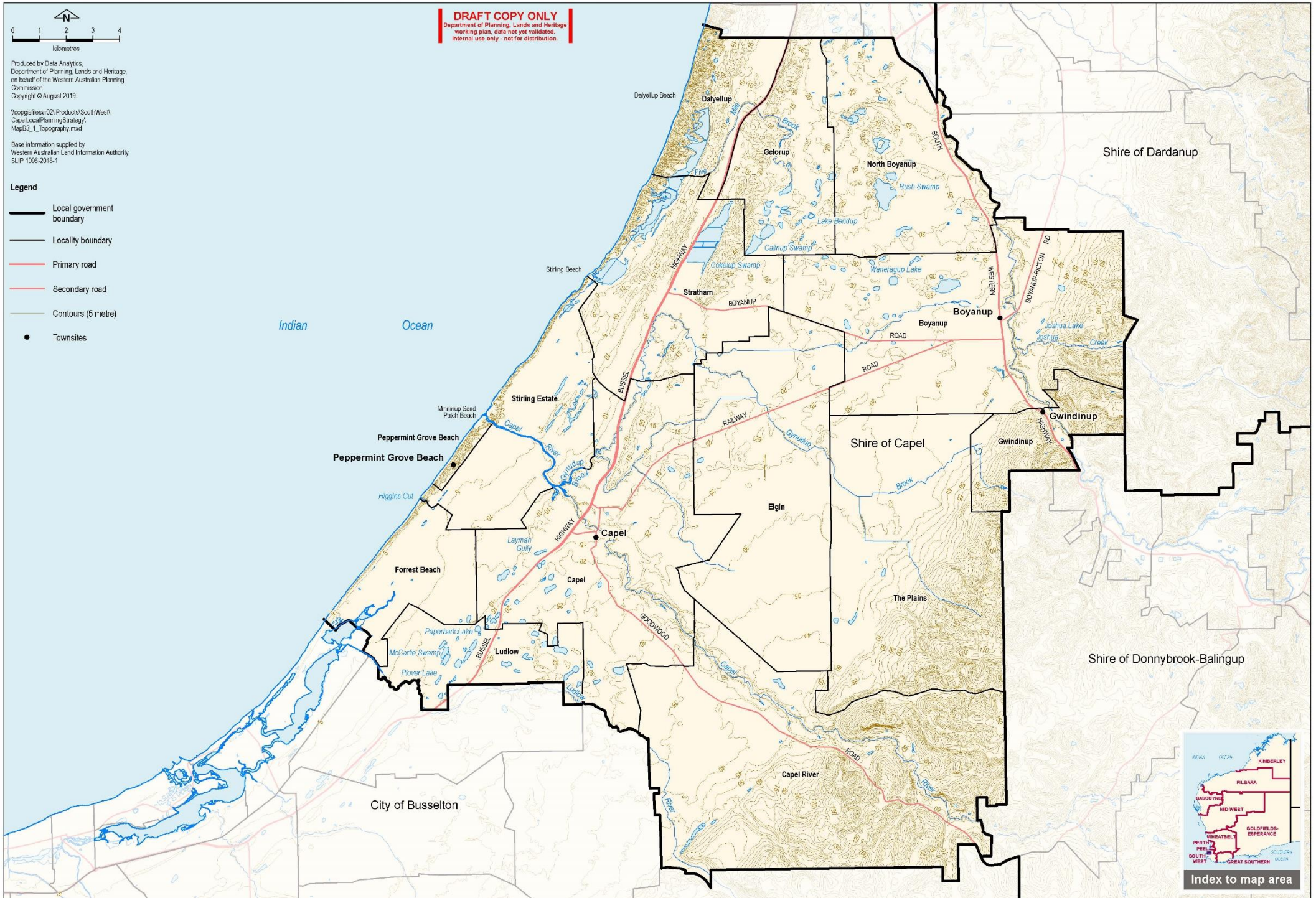


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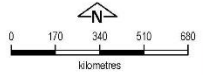
\\dopgsfilesv02\Products\SouthWest\
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 MapB3.1_Topography.mxd

Base information supplied by
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- Legend**
- Local government boundary
 - Locality boundary
 - Primary road
 - Secondary road
 - Contours (5 metre)
 - Townsites



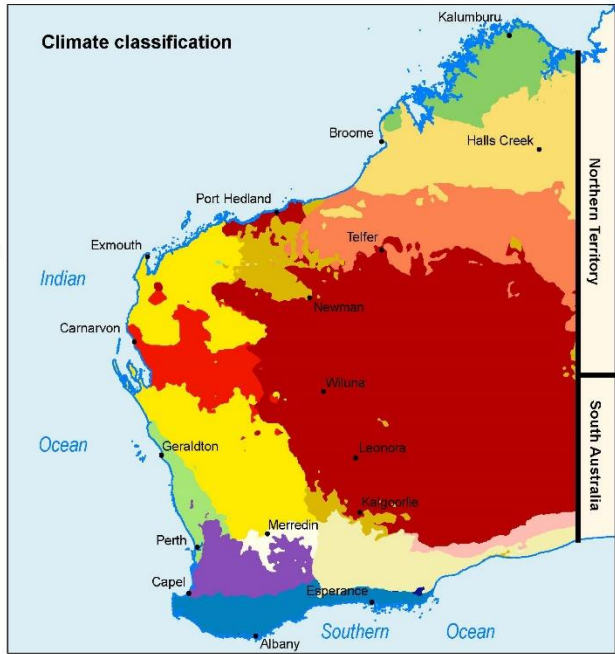
Map B3.1 - Topography



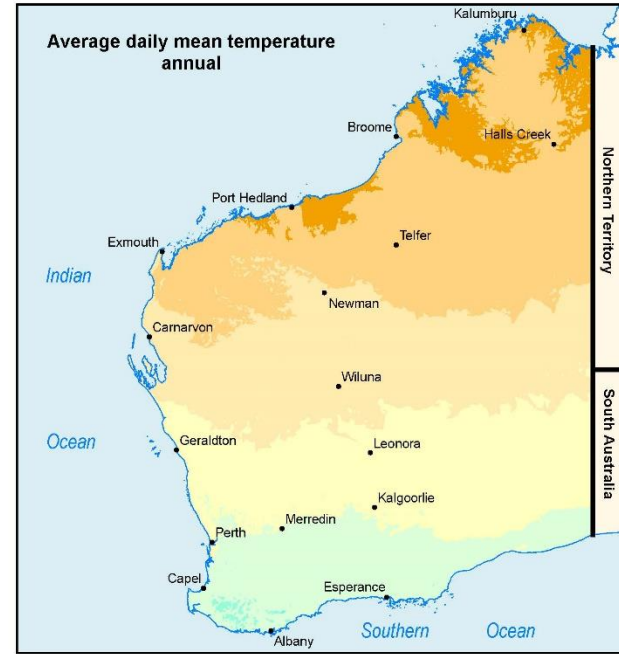
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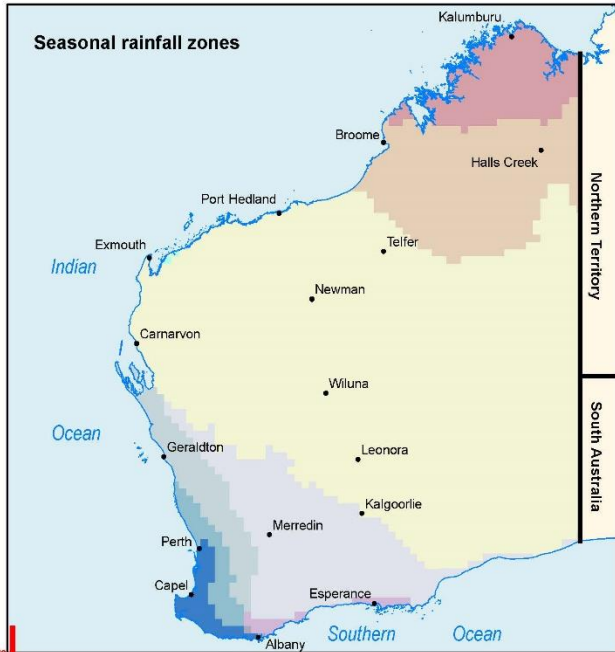
Climate data supplied by Bureau of Meteorology



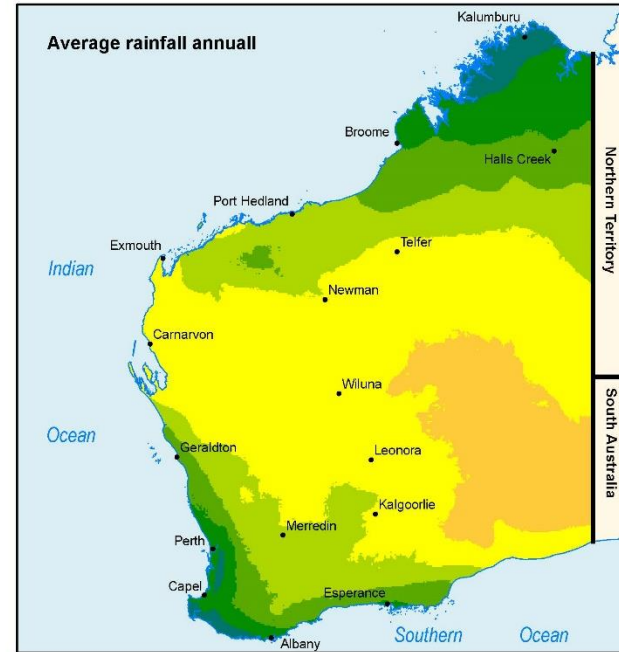
- Legend**
- Climate Classification**
- Tropical**
- savanna
- Subtropical**
- distinctly dry summer
- Desert**
- hot (persistently dry)
 - hot (summer drought)
 - hot (winter drought)
 - warm (persistently dry)
- Grassland**
- hot (persistently dry)
 - hot (summer drought)
 - hot (winter drought)
 - warm (persistently dry)
 - warm (summer drought)
- Temperate**
- distinctly dry (and hot) summer
 - no dry season (warm summer)
 - distinctly dry (and warm) summer



- Legend**
- Degrees Celcius**
- 9-12
 - 12-15
 - 15-18
 - 18-21
 - 21-24
 - 24-27
 - 27+



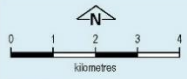
- Legend**
- Climate Classes**
- Summer Dominant**
- 650 - 1200
 - 350 - 650
- Winter**
- more than 800
 - 500 - 800
 - 250 - 500
- Winter dominant**
- more than 800
 - 500 - 800
 - 250 - 500
- Arid**
- less than 350



- Legend**
- Millimetres**
- 100-200
 - 200-300
 - 300-400
 - 400-600
 - 600-1000
 - 1000-1500

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Geology data supplied by
 Geoscience Australia

Legend

Geological Units 1M - Polygons

Quaternary

- Qa
- Qd
- Qe
- Qrc

Cenozoic

- Czc
- Czl

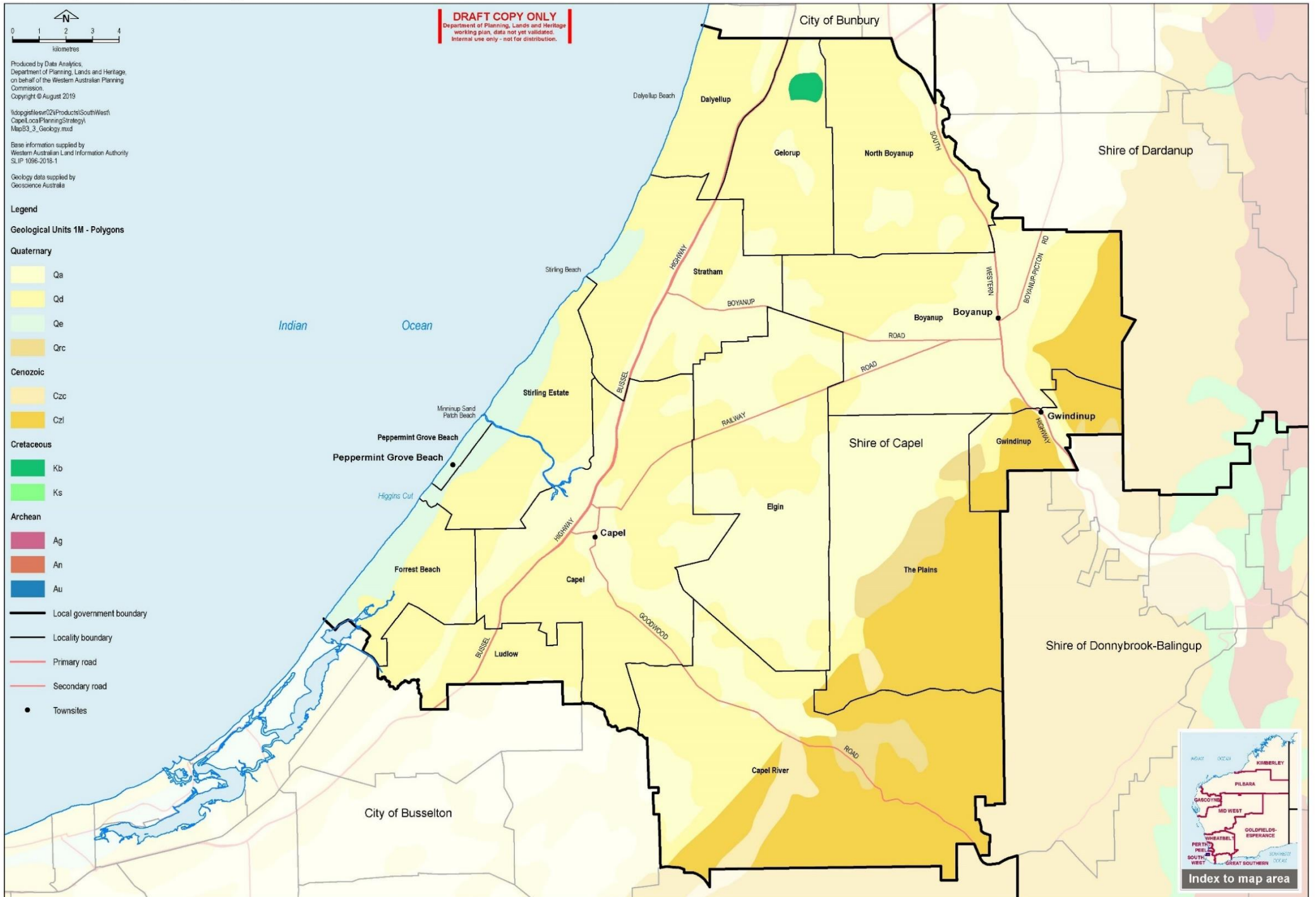
Cretaceous

- Kb
- Ks

Archean

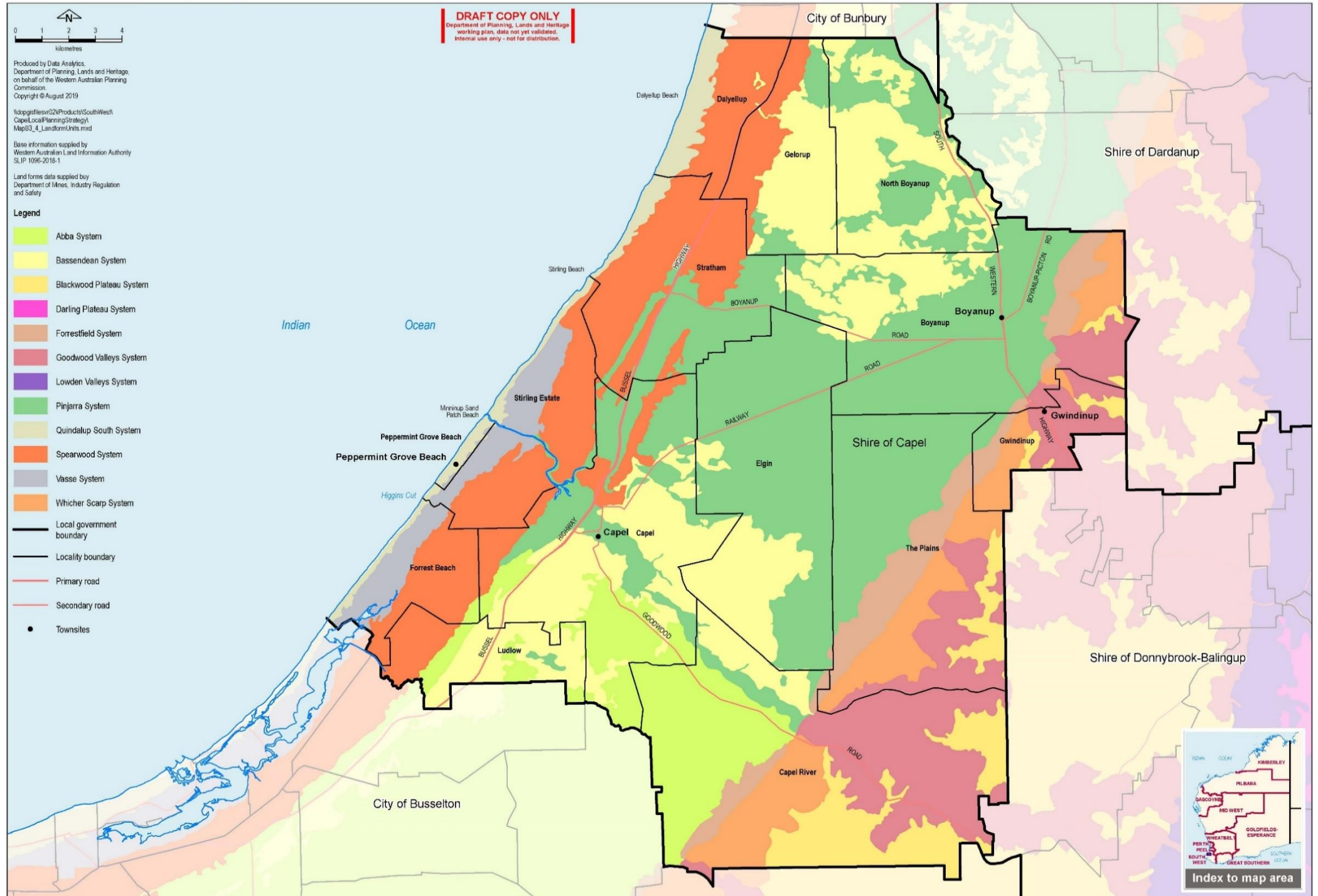
- Ag
- An
- Au

- Local government boundary
- Locality boundary
- Primary road
- Secondary road
- Townsites

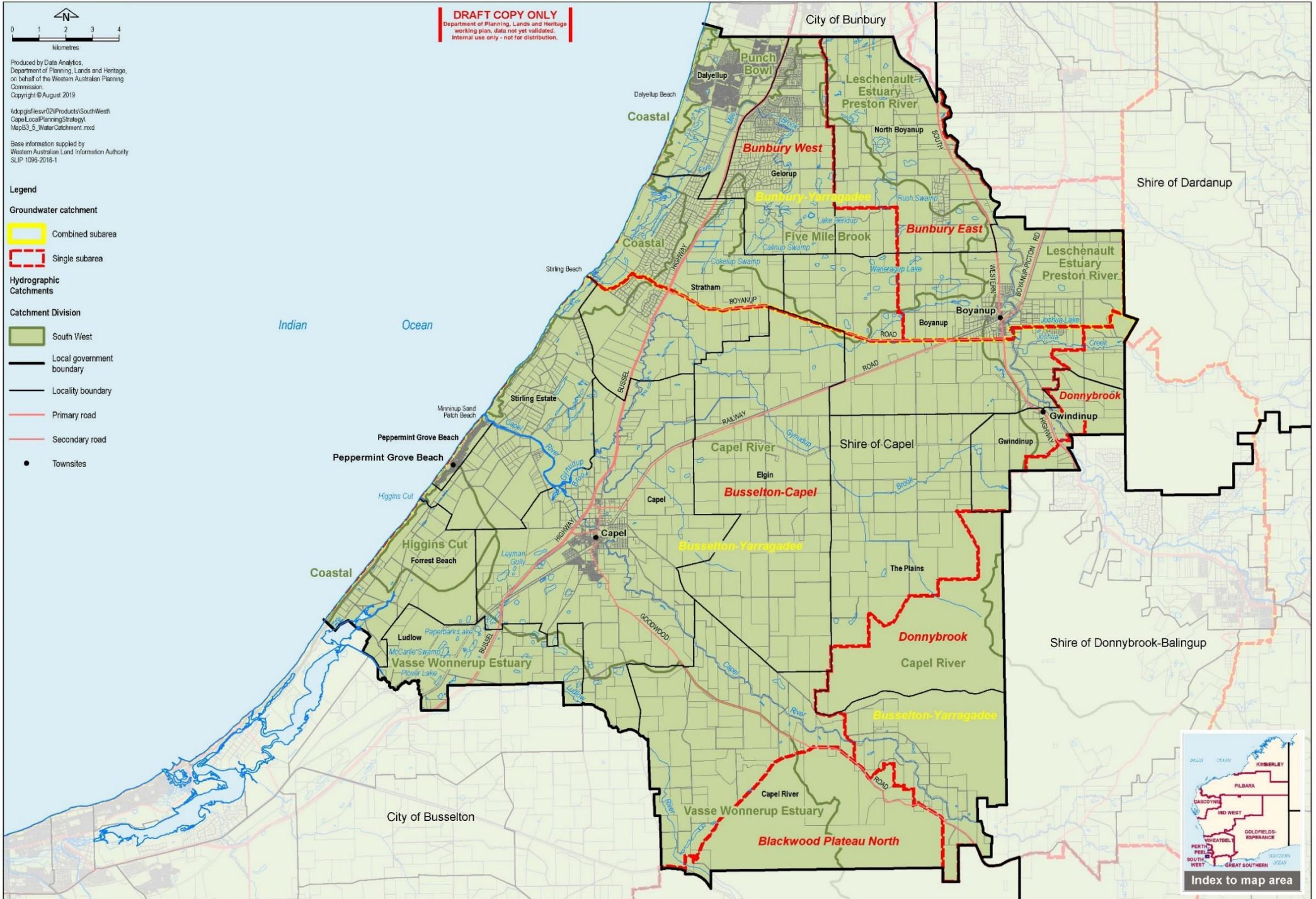


Map B3.3 – Geology

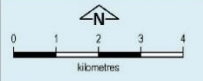
Shire of Capel Local Planning Strategy



Map B3.4 – Landform Units



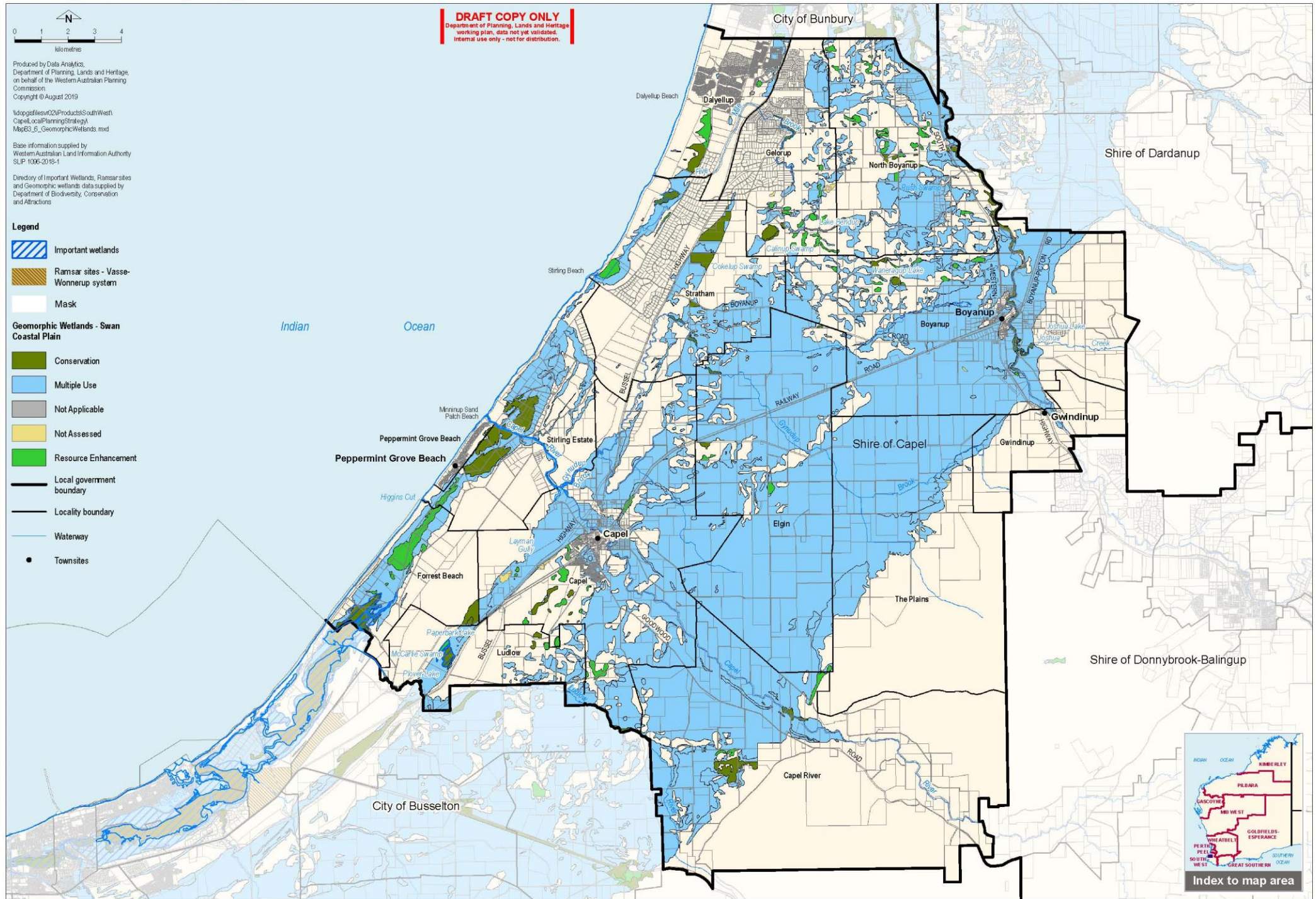
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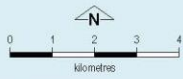
- Legend**
- Groundwater catchment**
- Combined subarea
 - Single subarea
- Hydrographic Catchments**
- South West
- Catchment Division**
- Local government boundary
 - Locality boundary
 - Primary road
 - Secondary road
 - Townsites

Map B3.5 - Water Catchments – Hydrographic / Groundwater



Map B3.6 - Geomorphic Wetlands

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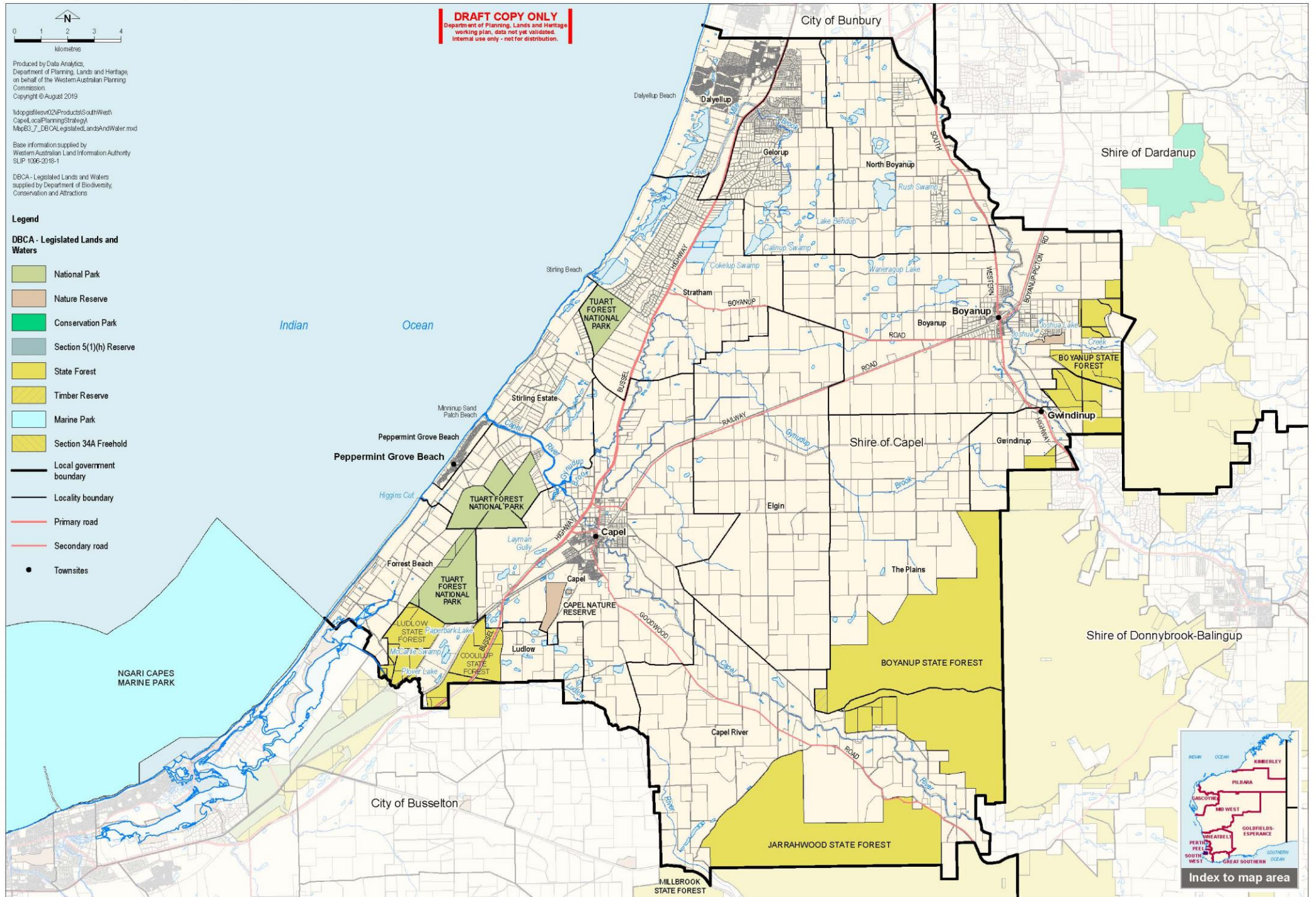
Base information supplied by
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 SLIP 1066-2018-1

DBCA - Legislated Lands and Waters
 supplied by Department of Biodiversity,
 Conservation and Attractions

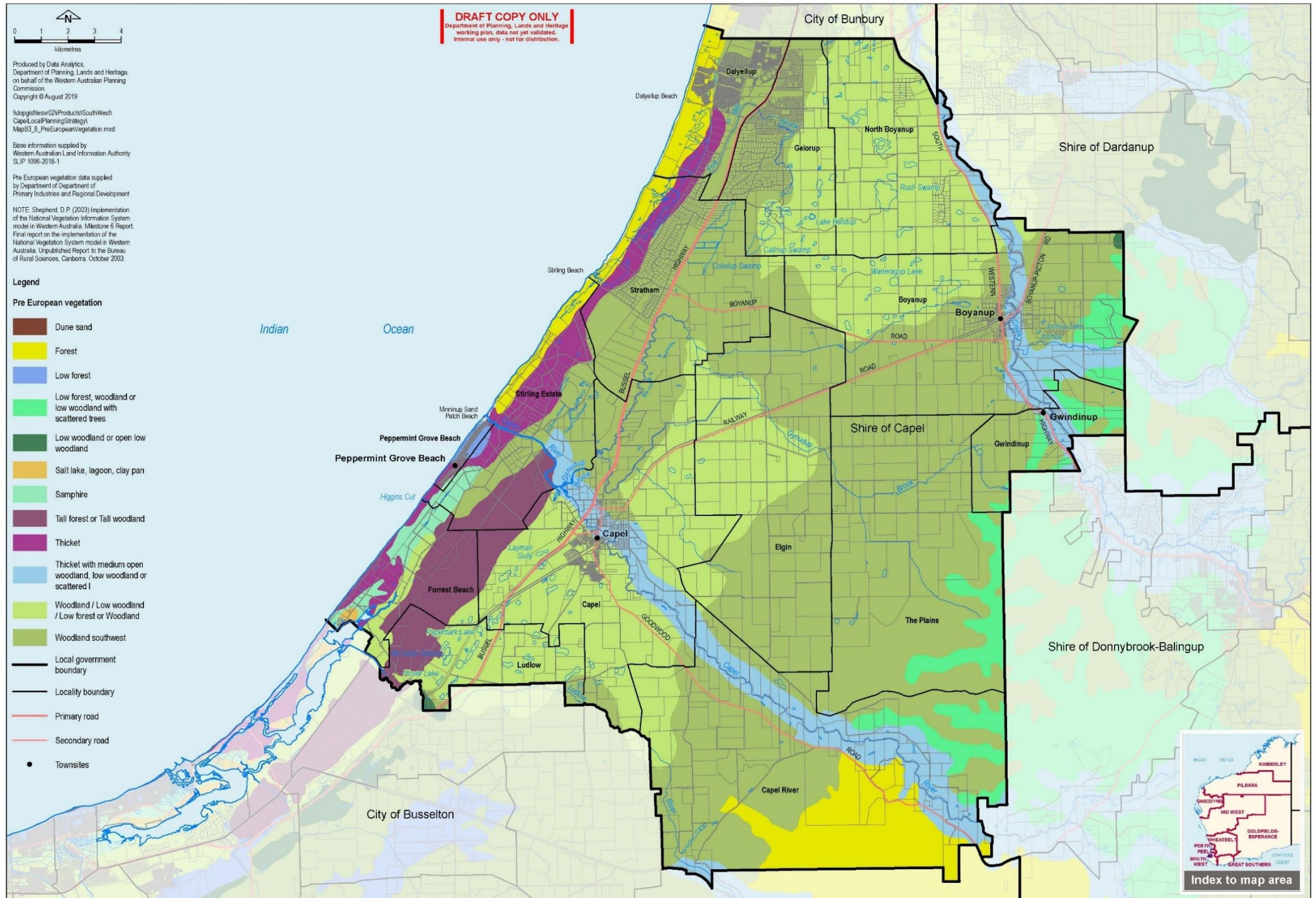
Legend

DBCA - Legislated Lands and Waters

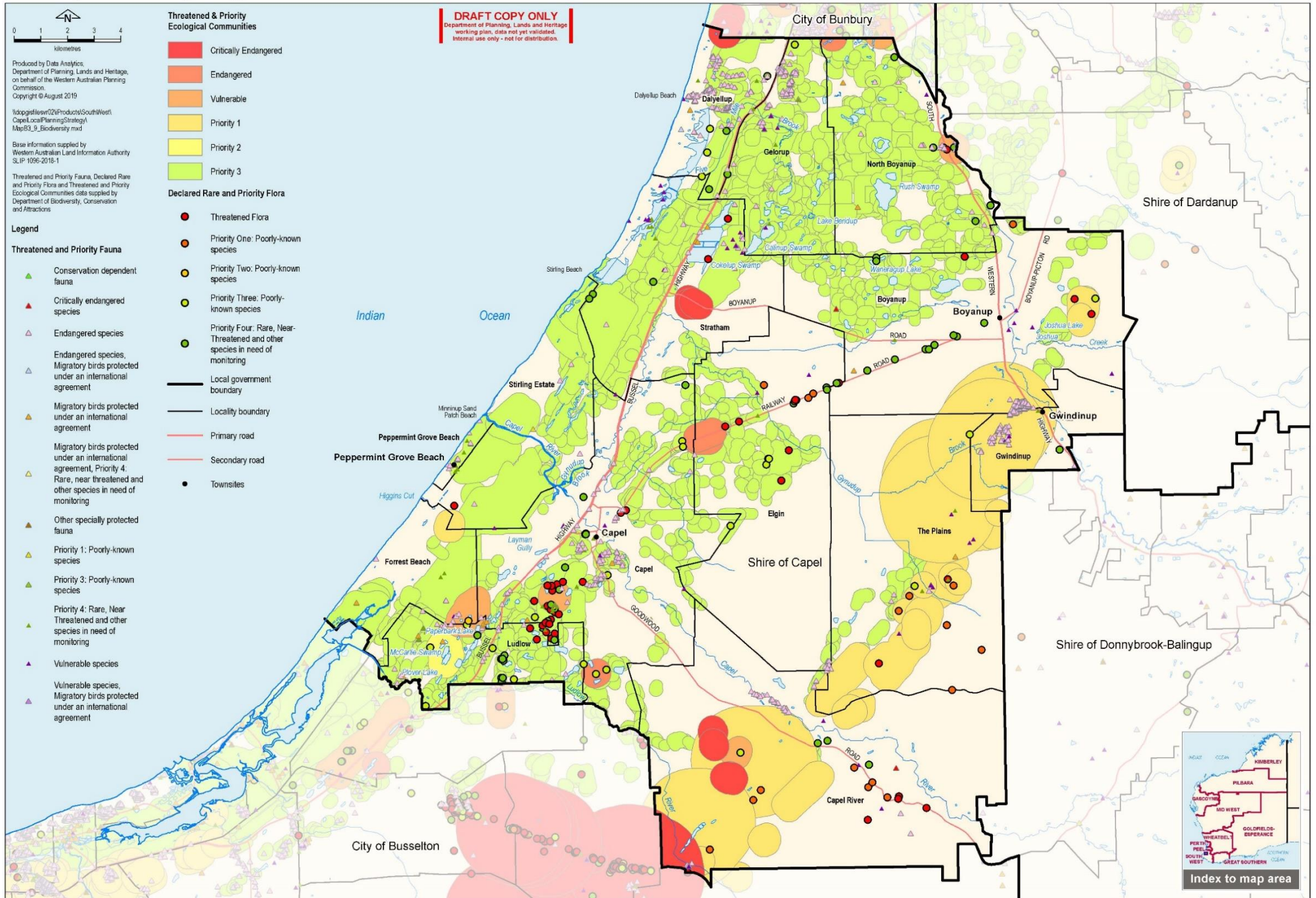
- National Park
- Nature Reserve
- Conservation Park
- Section 5(1)(h) Reserve
- State Forest
- Timber Reserve
- Marine Park
- Section 34A Freehold
- Local government boundary
- Locality boundary
- Primary road
- Secondary road
- Townsites



Map B3.7 - DBCA - Legislated Lands and Waters

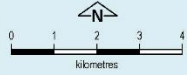


Map B3.8 - Pre-European Vegetation



Map B3.9 - Biodiversity - Threatened / Priority Species/Ecological Communities

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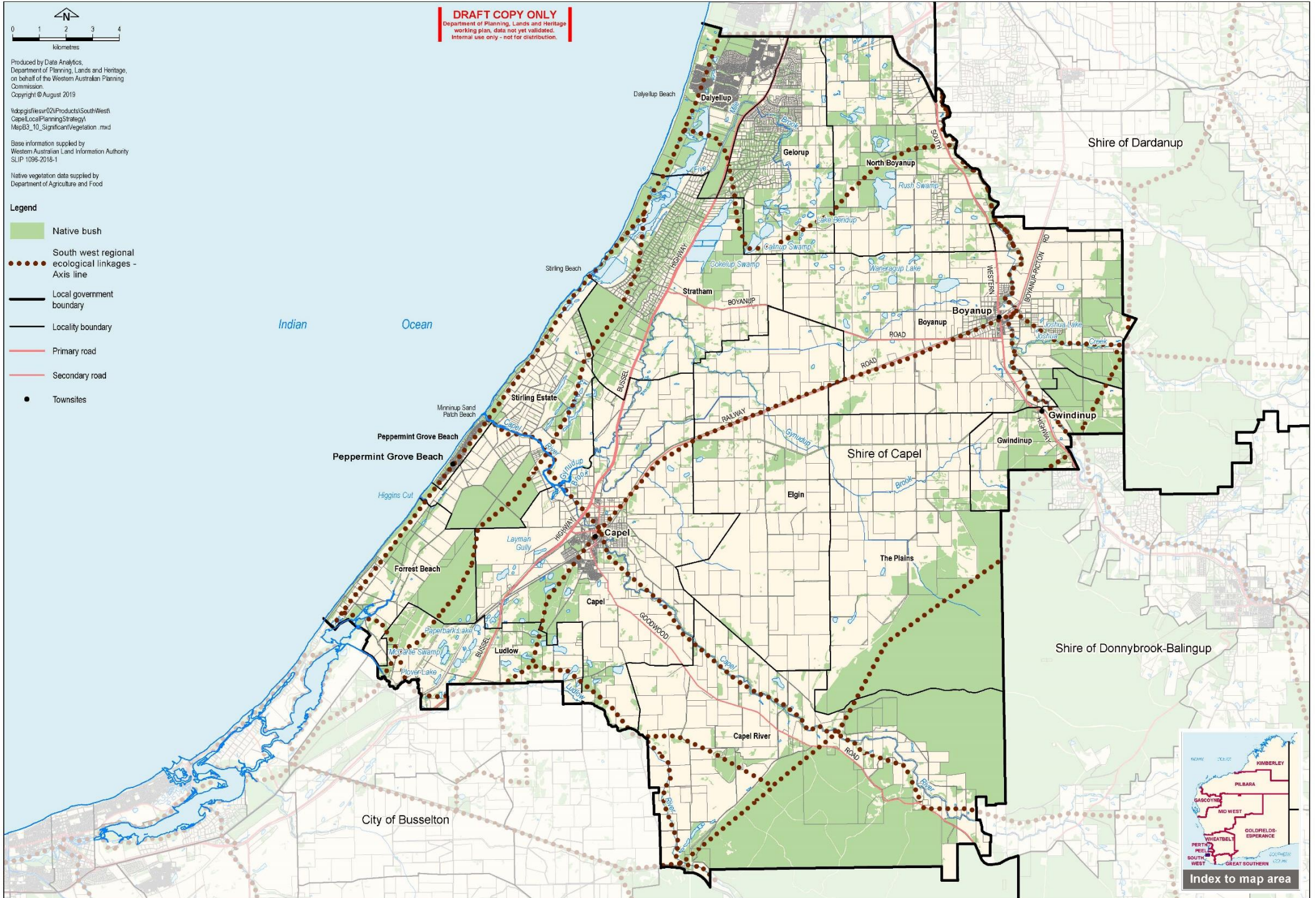
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 MapB3_10_SignificantVegetation.mxd

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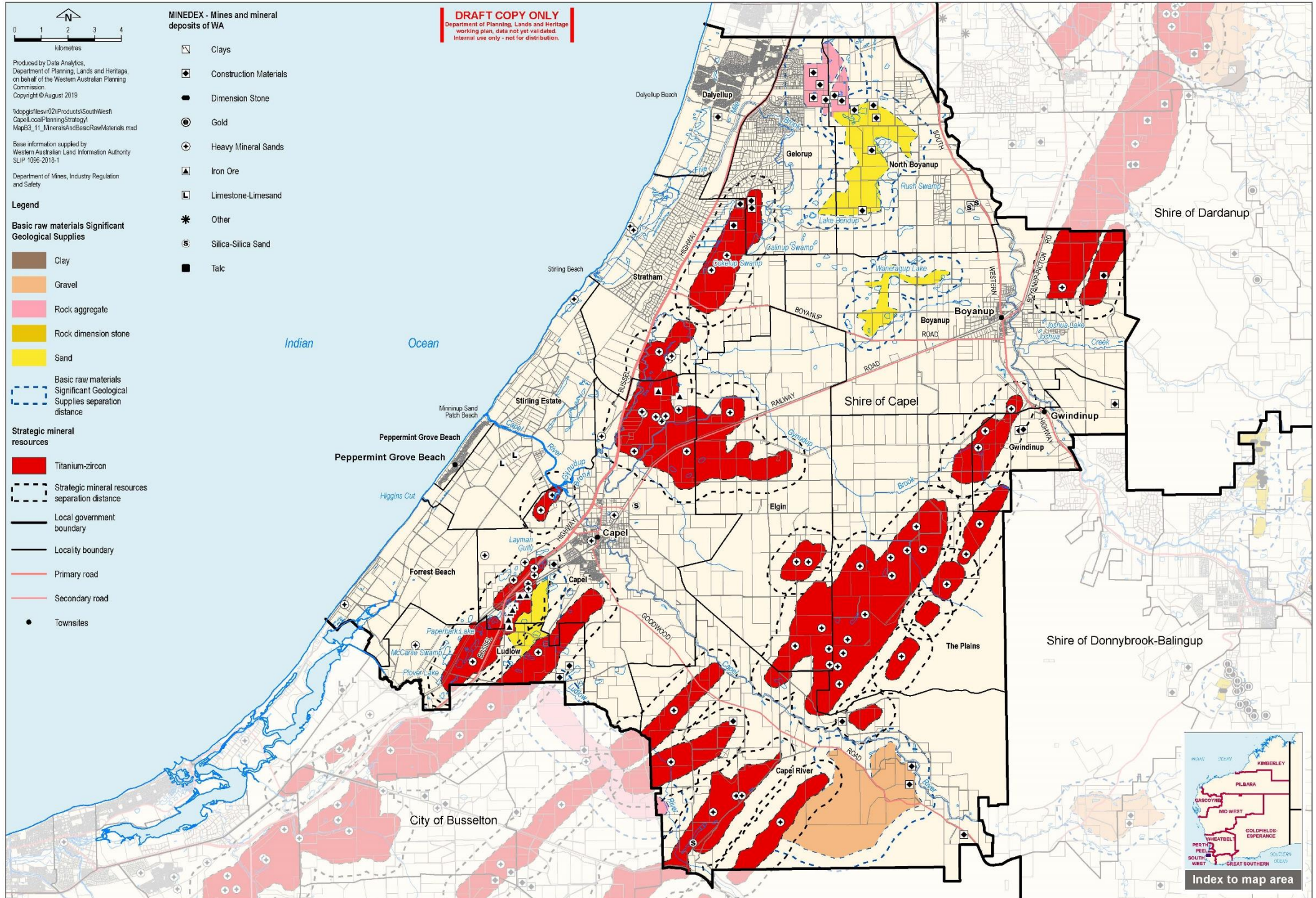
Native vegetation data supplied by
 Department of Agriculture and Food

- Legend**
- Native bush
 - South west regional ecological linkages - Axis line
 - Local government boundary
 - Locality boundary
 - Primary road
 - Secondary road
 - Townsites

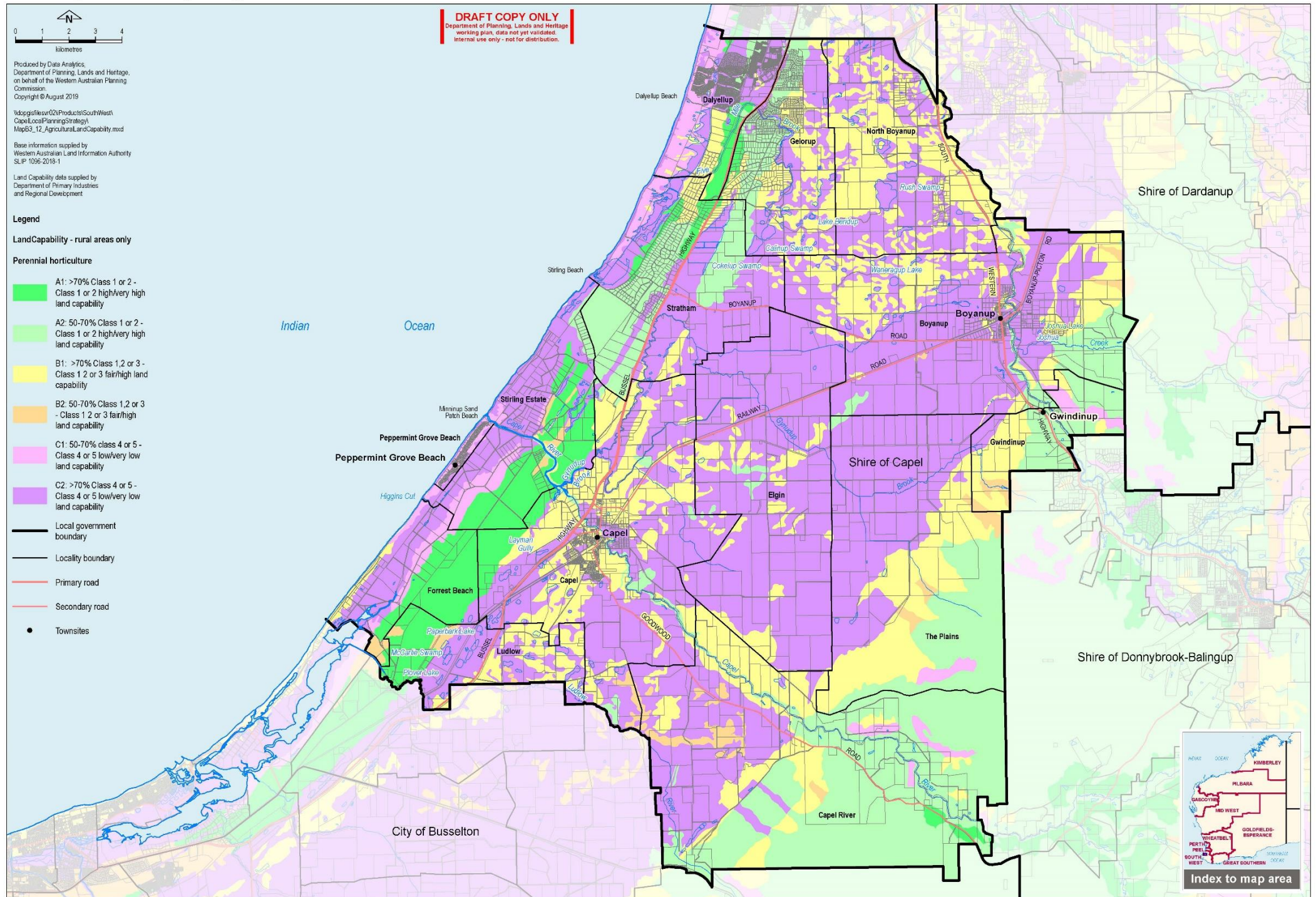


Map B3.10 - Significant Vegetation and South West regional ecological linkages

Shire of Capel Local Planning Strategy

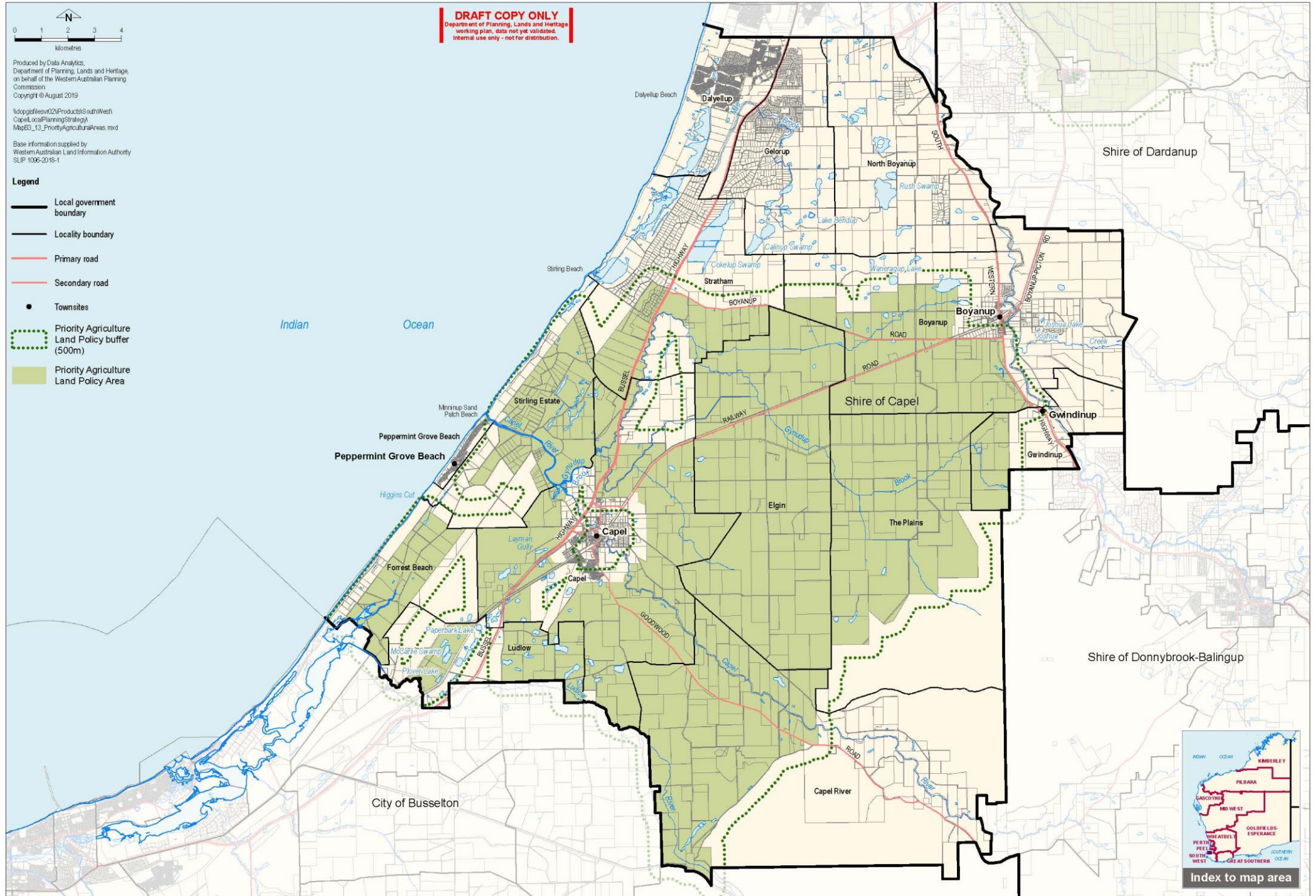


Map B3.11 - Minerals and Basic Raw Materials – Resource Areas / Mines



Map B3.12 - Agricultural Land Capability - Horticulture / Cropping / Grazing

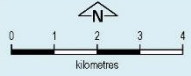
Shire of Capel Local Planning Strategy



Map B3.13 - Priority Agricultural Areas

Shire of Capel Local Planning Strategy

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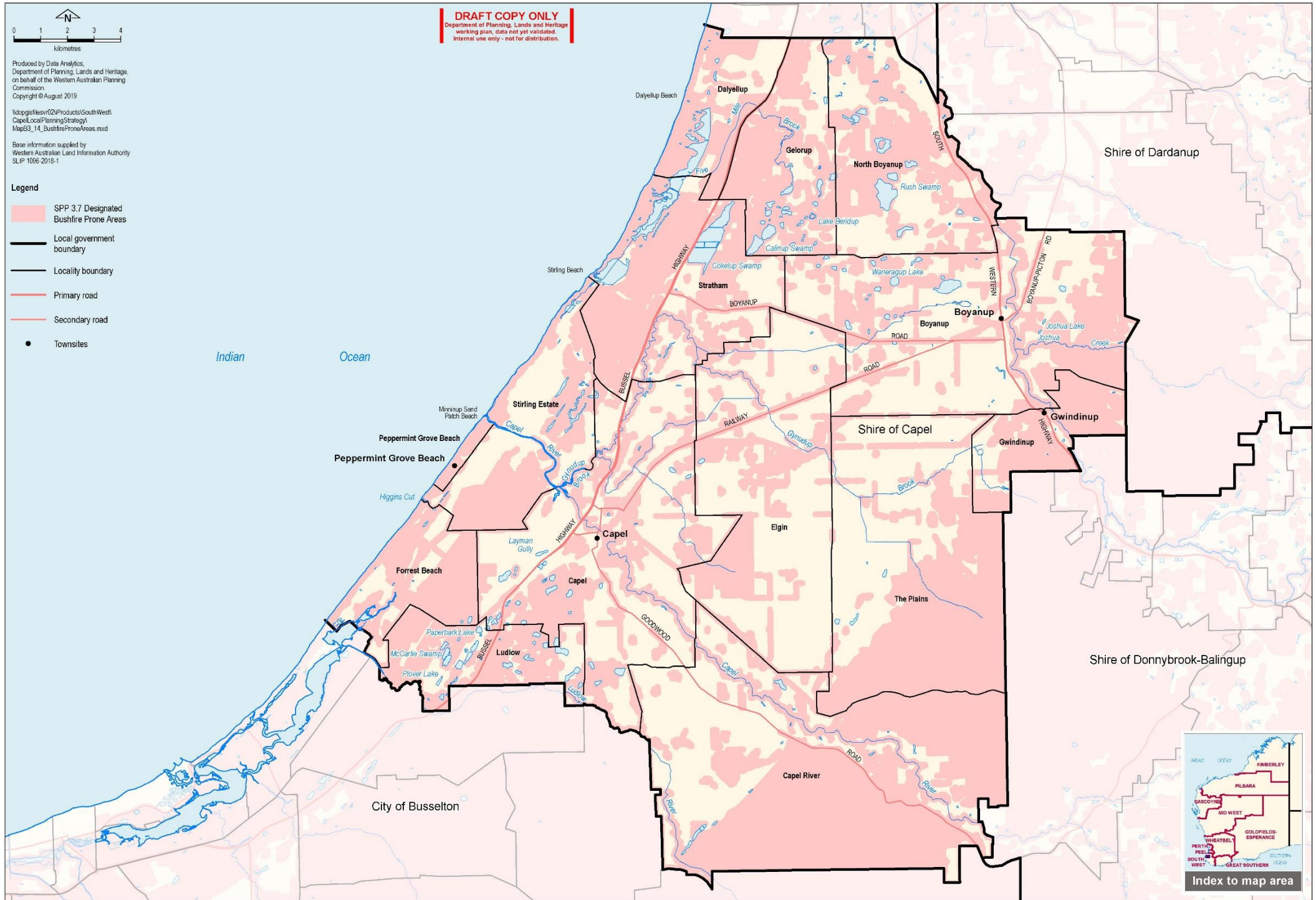
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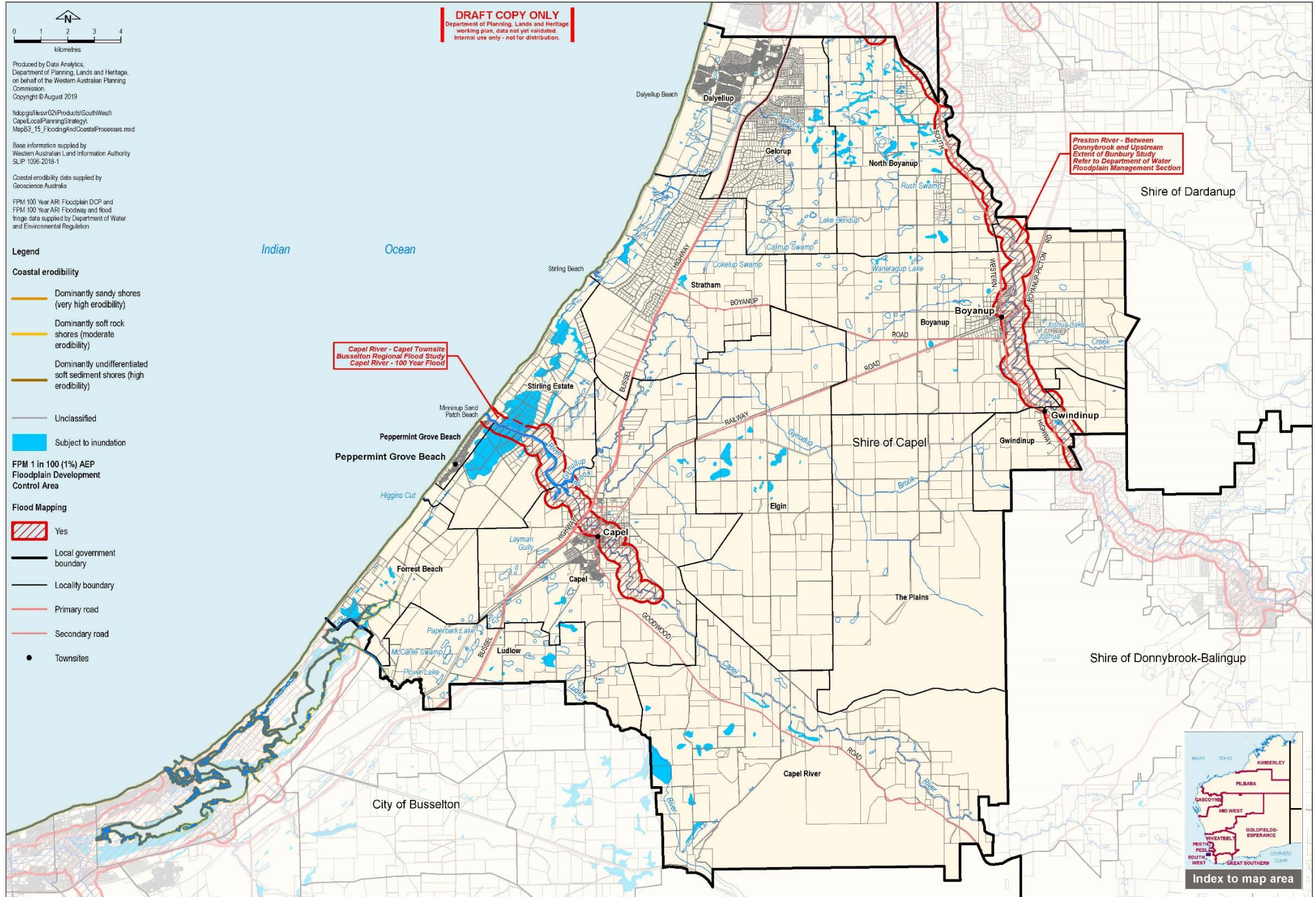
Legend

- SPP 3.7 Designated Bushfire Prone Areas
- Local government boundary
- Locality boundary
- Primary road
- Secondary road
- Townsites



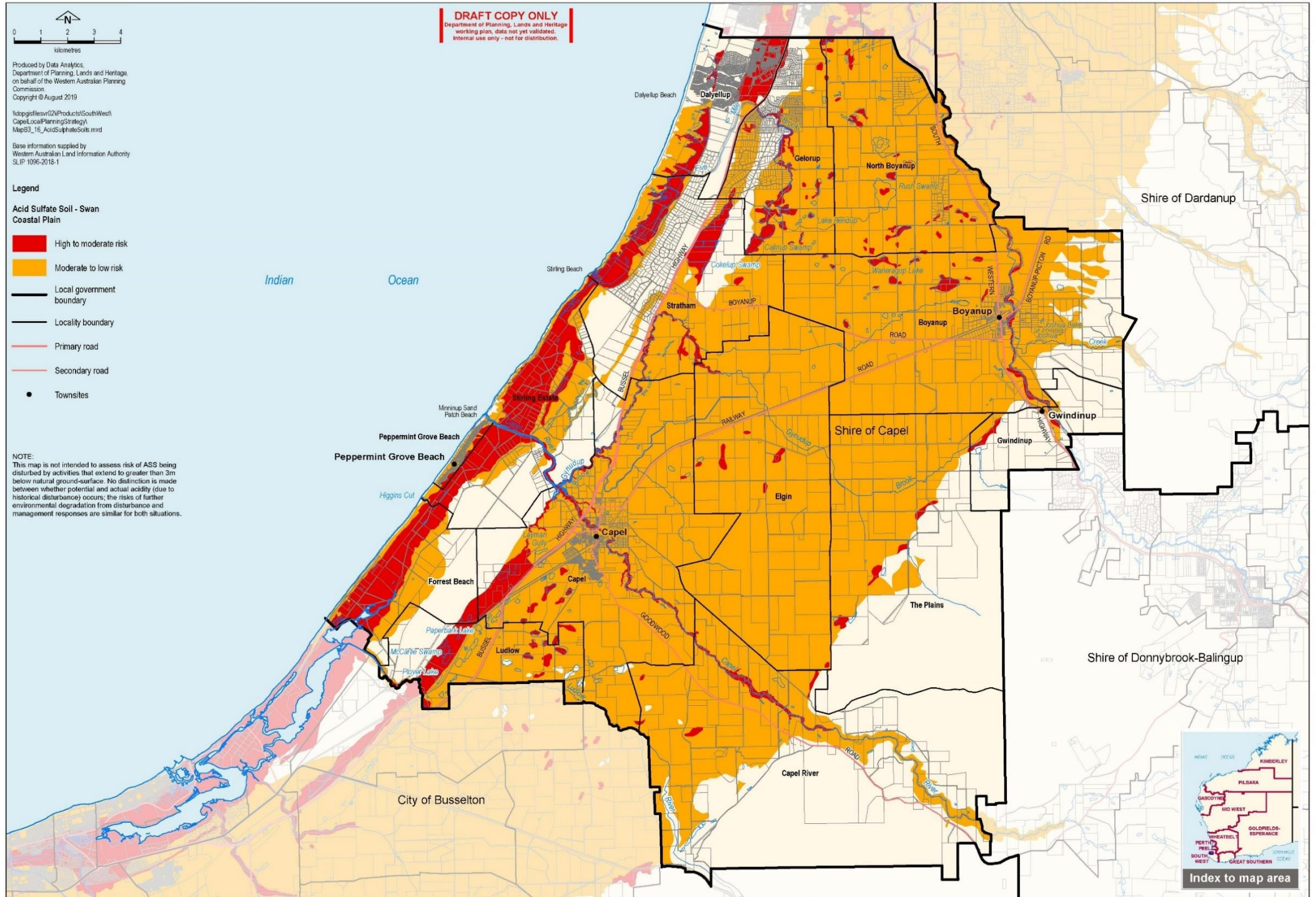
Map B3.14 - Bushfire Prone Areas

Shire of Capel Local Planning Strategy

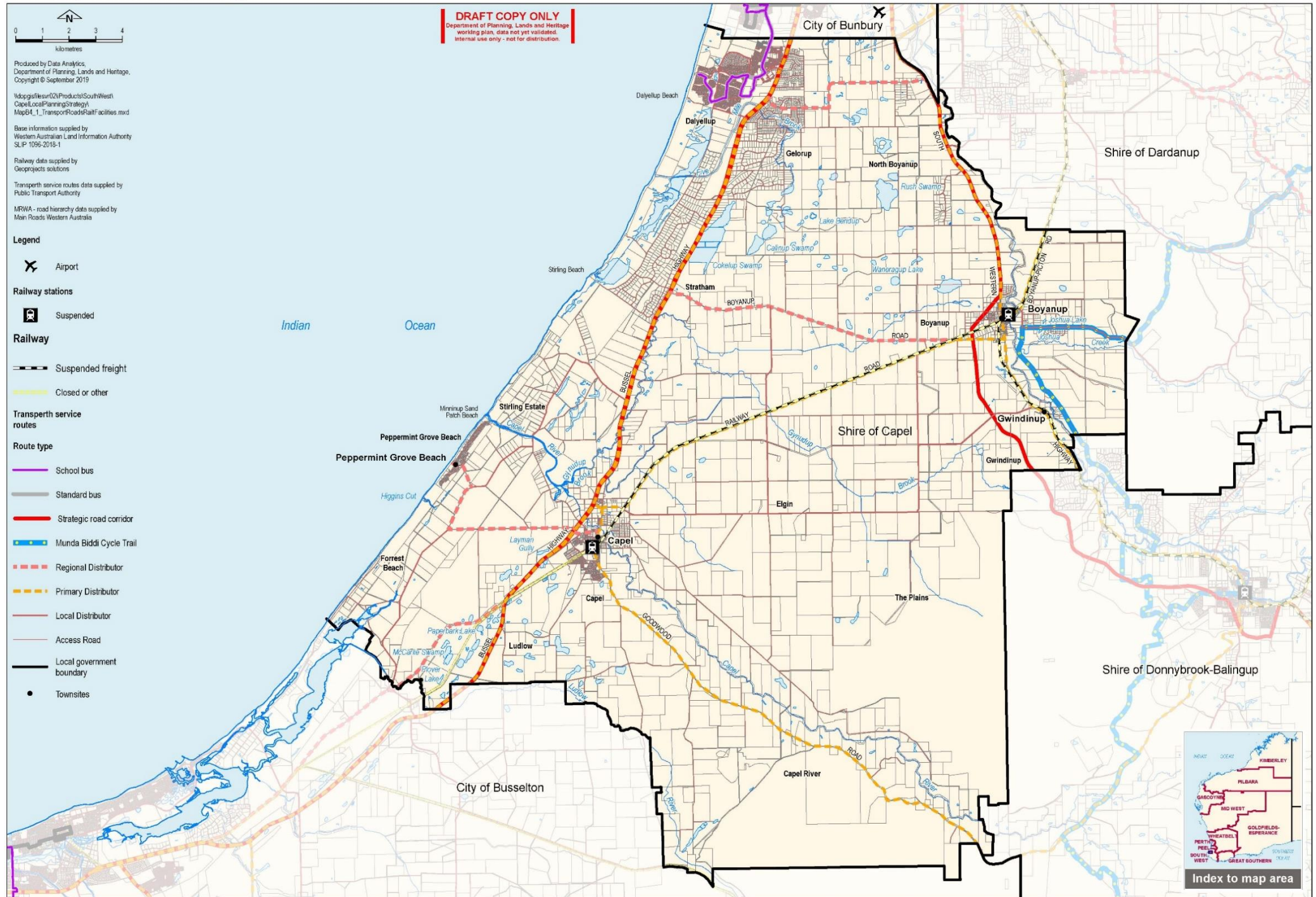


Map B3.15 - Flooding and Coastal Processes

Shire of Capel Local Planning Strategy

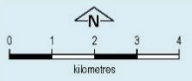


Map B3.16 - Acid Sulphate Soils



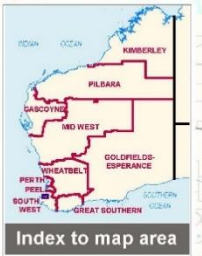
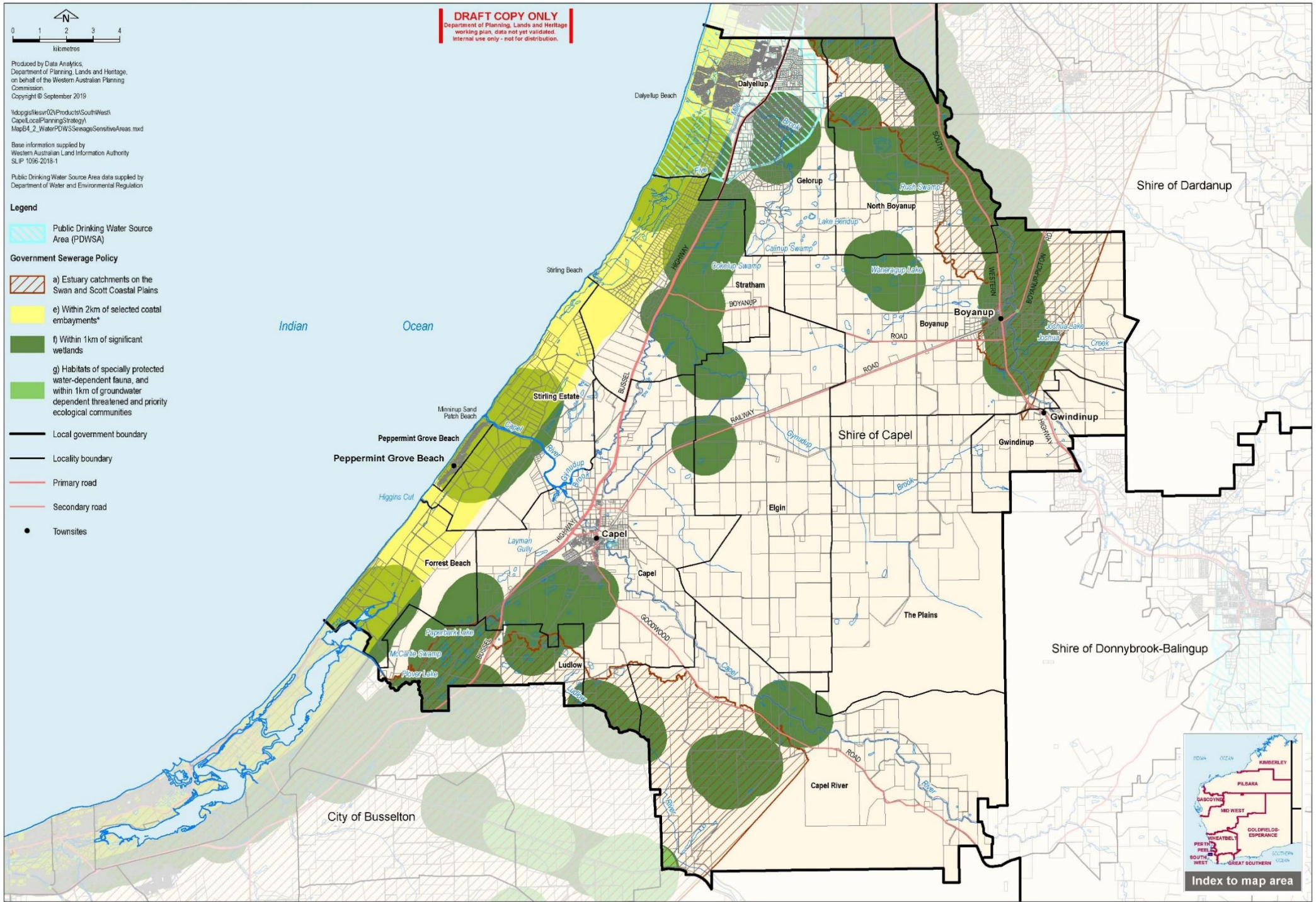
Map B4.1 - Transport – Roads / Rail / Trails / Transport Facilities

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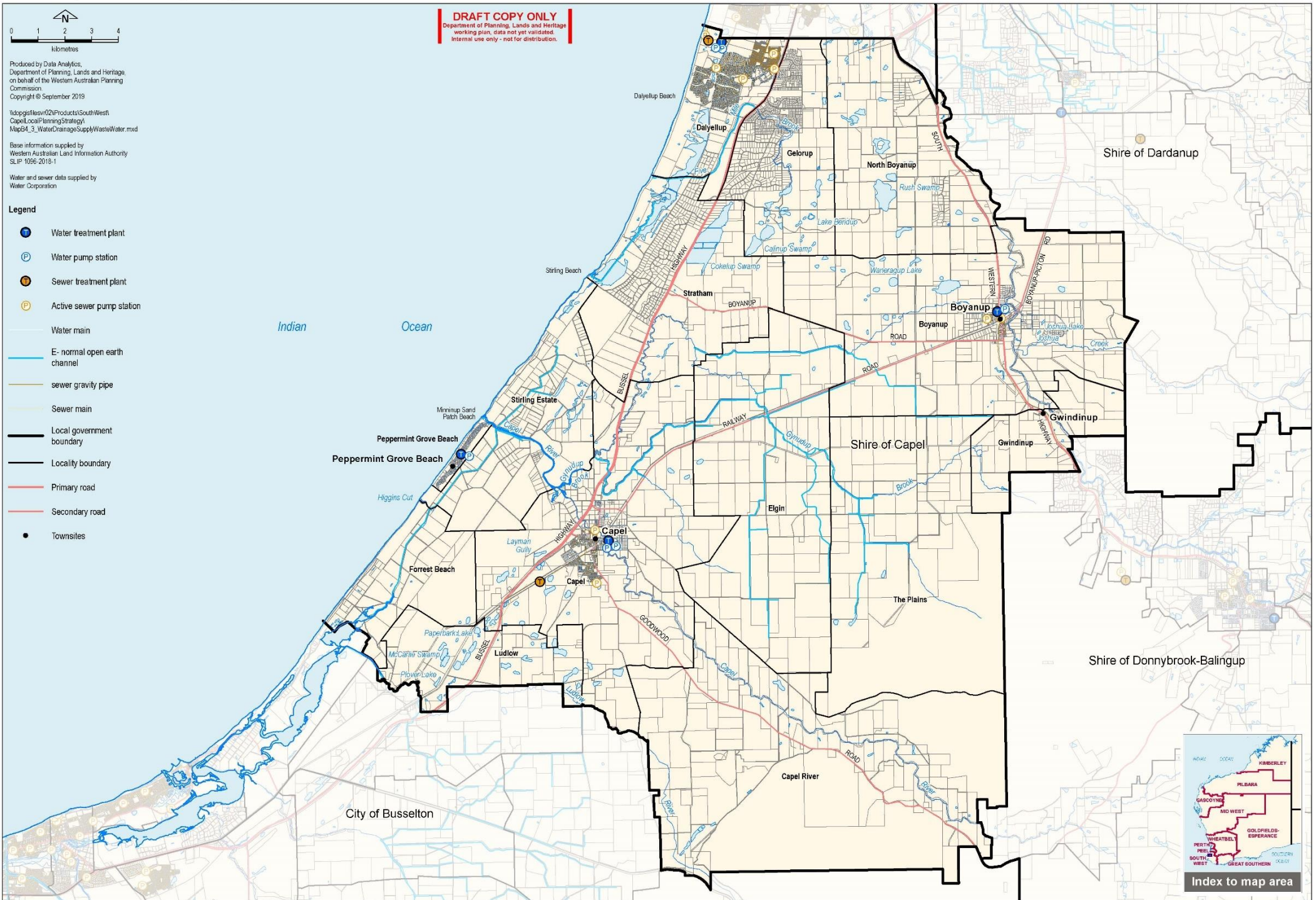
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 Base information supplied by
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 SLIP 1056-2018-1
 Public Drinking Water Source Area data supplied by
 Department of Water and Environmental Regulation

- Legend**
- Public Drinking Water Source Area (PDWSA)
 - Government Sewerage Policy**
 - a) Estuary catchments on the Swan and Scott Coastal Plains
 - e) Within 2km of selected coastal embayments*
 - f) Within 1km of significant wetlands
 - g) Habitats of specially protected water-dependent fauna, and within 1km of groundwater dependent threatened and priority ecological communities
 - Local government boundary
 - Locality boundary
 - Primary road
 - Secondary road
 - Townsites

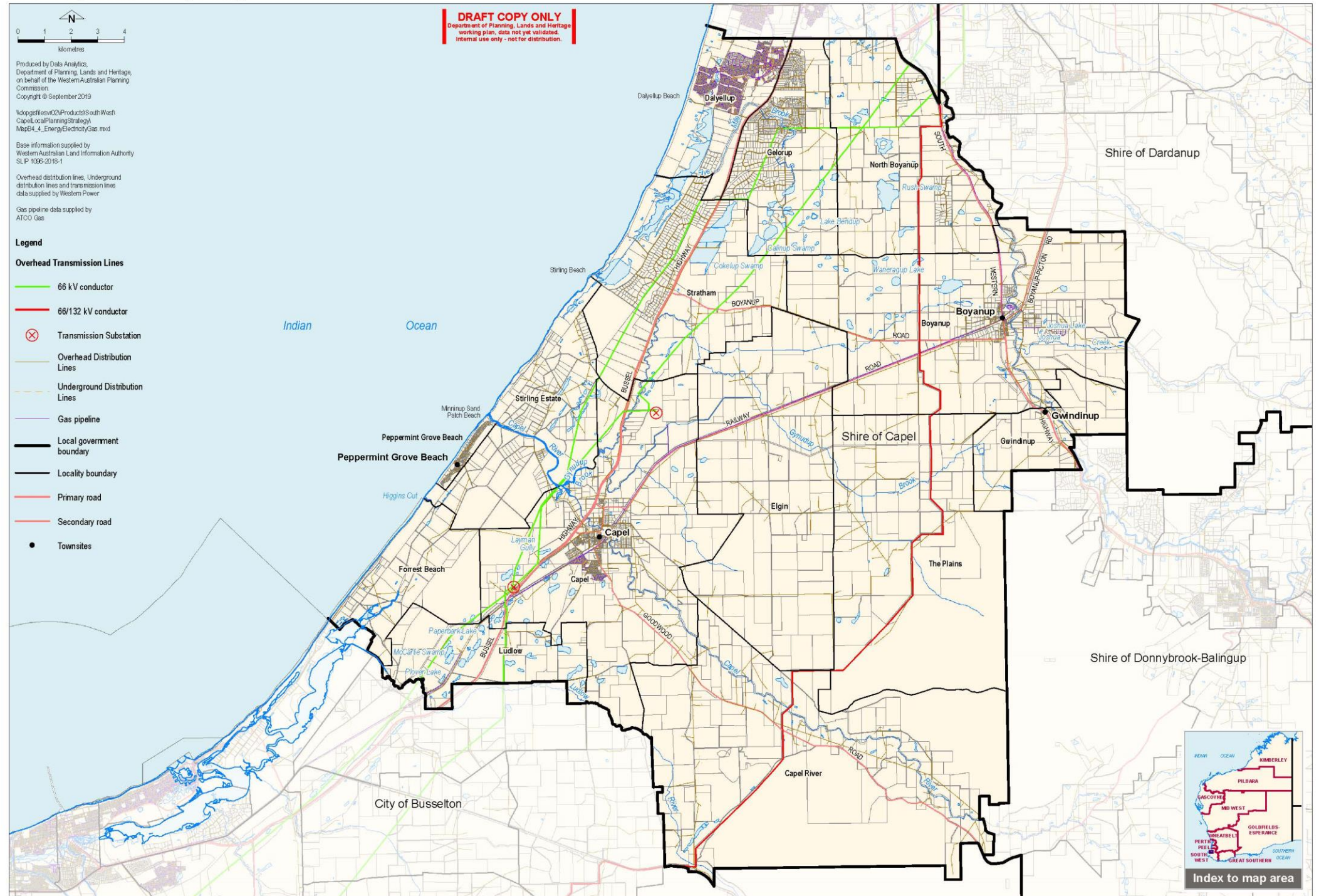


Map B4.2 - Water – Public Drinking Water Source Areas / Sewage Sensitive Areas

Shire of Capel Local Planning Strategy

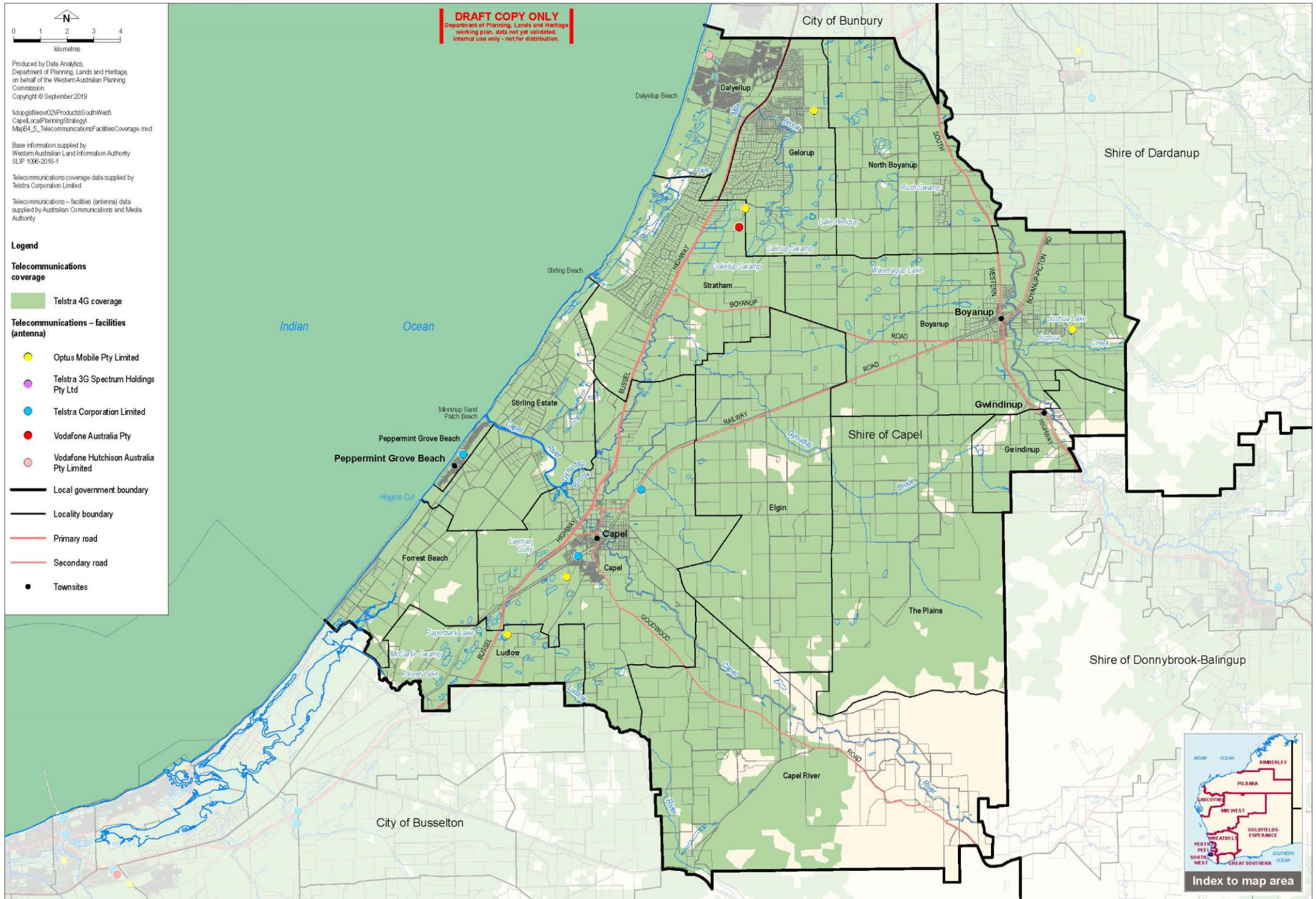


Map B4.3 - Water - Drainage / Supply / Waste Water

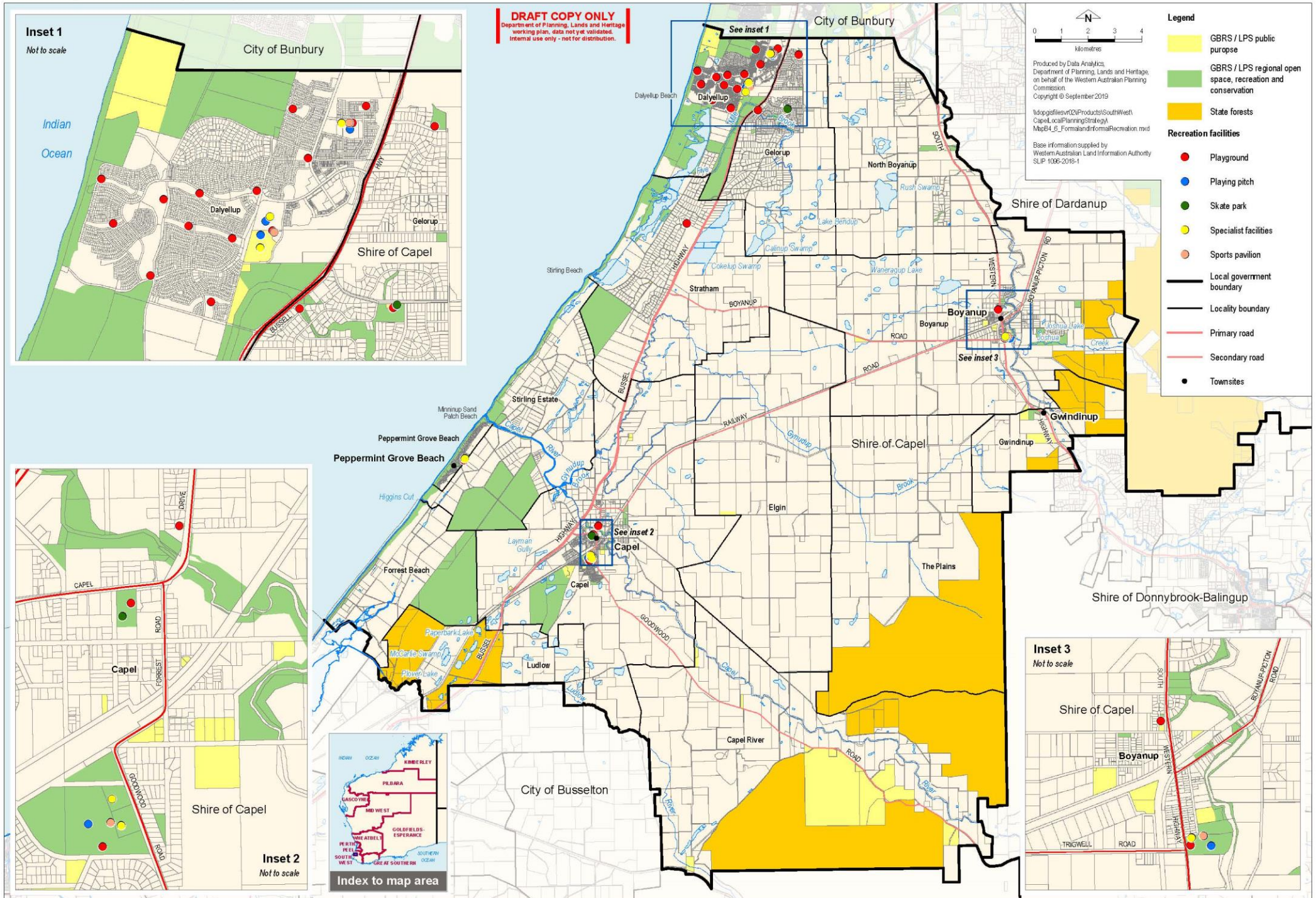


Map B4.4 - Energy - Electricity / Gas

Shire of Capel Local Planning Strategy

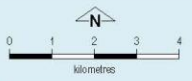


Map B4.5 - Telecommunications – Facilities / Coverage



Map B4.6 - Formal and Informal Recreation

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Health facilities data supplied by
 Department of Health

Educational facilities data supplied by
 Geoproject Solutions

Fire and Emergency services data
 supplied by Department of Fire and
 Emergency services

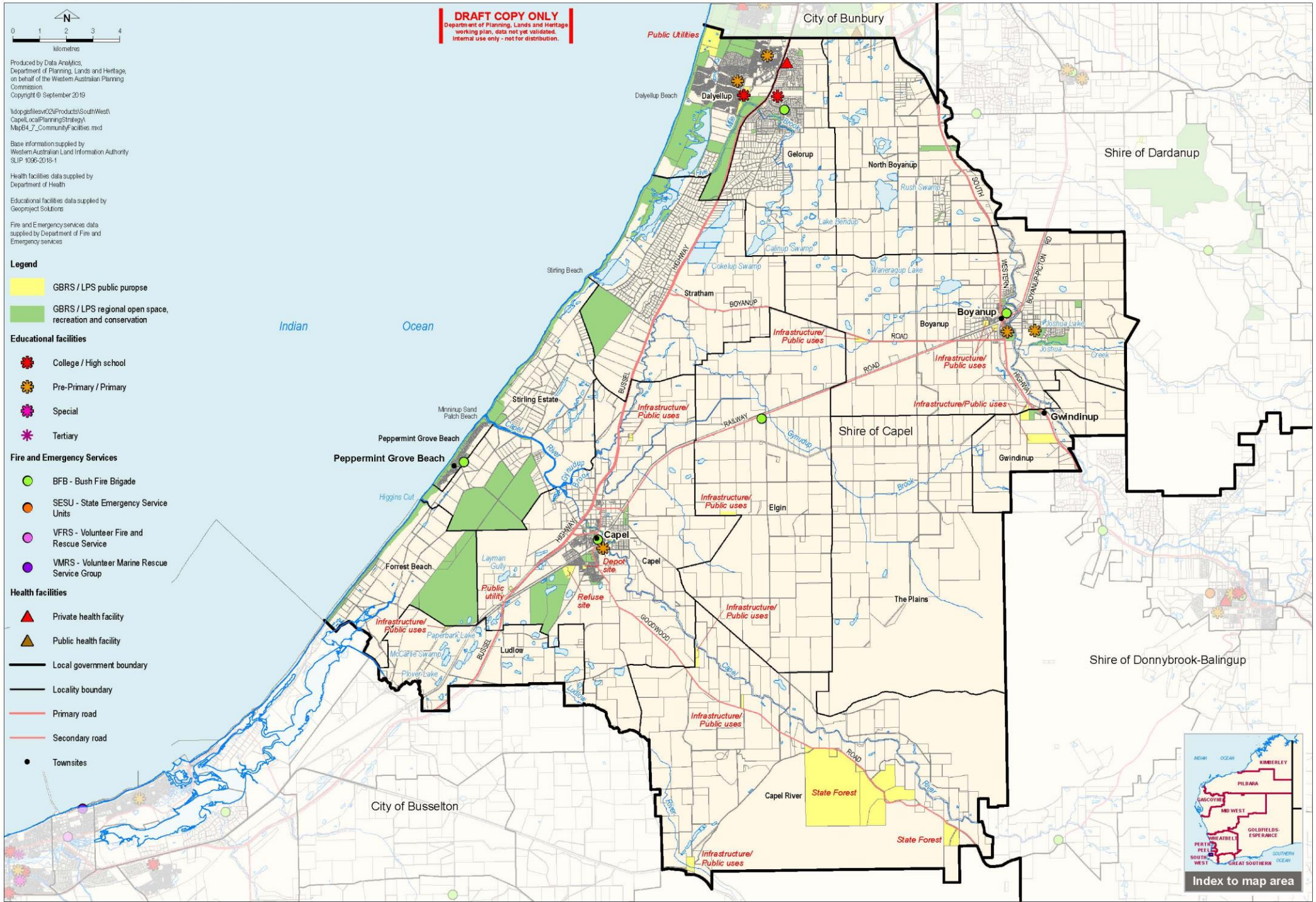
- Legend**
- GBRS / LPS public purpose
 - GBRS / LPS regional open space, recreation and conservation

- Educational facilities**
- College / High school
 - Pre-Primary / Primary
 - Special
 - Tertiary

- Fire and Emergency Services**
- BFB - Bush Fire Brigade
 - SESU - State Emergency Service Units
 - VFRS - Volunteer Fire and Rescue Service
 - VMRS - Volunteer Marine Rescue Service Group

- Health facilities**
- Private health facility
 - Public health facility

- Local government boundary
- Locality boundary
- Primary road
- Secondary road
- Townsites



Map B4.7 - Community Facilities

Appendix C: Bushfire Hazard Level Assessment



Shire of Capel

Local Planning Strategy

Bushfire Hazard Level Assessment



LUSHFIRE & PLANNING

3 Paterson Rd
Pinjarra WA 6208
0418 954 873
ABN 74 232 678 543

Ref 21-053
Ver D
November 2022

Bushfire Management Plan Coversheet

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Bushfire Management Plan and Site Details

Site Address / Plan Reference:	As noted		
Suburb:	Capel, Boyanup, Dalyellup and Peppermint Grove Beach	State:	WA
P/code:			
Local government area:	Capel		
Description of the planning proposal:	Local Planning Strategy		
BMP Plan / Reference Number:	21-053	Version:	D
Date of Issue:	22/11/2022		
Client / Business Name:	Shire of Capel		

Reason for referral to DFES

	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the proposal any of the following special development types (see SPP 3.7 for definitions)?		
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If the development is a special development as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

Strategic bushfire hazard level assessment for Local Planning Strategy

Note: The decision maker (e.g. the local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name	Accreditation Level	Accreditation No.	Accreditation Expiry
Geoffrey Lush	Level 2	BPAD 27682	28/02/2023
Company		Contact No.	
Lush Fire & Planning		0418 954 873	

I declare that the information provided in this bushfire management plan is to the best of my knowledge true and correct.

Signature of Practitioner

Geoffrey Lush

Date

22/11/2022

This Bushfire Hazard Level (BHL) assessment has been prepared to assist in the formulation of the Shire of Capel Local Planning Strategy and Local Planning Scheme No 6.

State Planning Policy 3.7 Planning in Bushfire Prone Areas requires that the preparation of the Local Planning Strategy should include high level consideration of relevant bushfire hazards when identifying or investigating land for future development. It requires that for bushfire prone land that any strategic planning proposal is to be accompanied by:

- ❖ a BHL assessment determining the applicable hazard level(s) across the subject land, in accordance with the methodology set out in the Guidelines;
- ❖ the identification of any bushfire hazard issues arising from the relevant assessment; and
- ❖ clear demonstration that compliance with the bushfire protection criteria in the Guidelines can be achieved in subsequent planning stages.

The objectives for this BHL assessment are:

- 1) to examine those areas which were identified for development in the earlier draft of the Local Planning Strategy, to determine their suitability for development;
- 2) to identify areas that require a more detailed analysis before any development / subdivision occurs;
- 3) to identify any bushfire management issues and any spatial impact of such issues which should be considered in the preparation of a structure plan; and
- 4) to document how the recommendations of this BHL assessment can be implemented in the relevant planning stages.

The assessment has been prepared in accordance with the methodology contained in the Guidelines for Planning in Bushfire Prone Areas (Version 1.4 December 2021) and included:

- Site Inspections;
- Reviewing district vegetation surveys;
- Reviewing existing structure plans and Bushfire Management Plans;
- Use of aerial photography; and
- Measurement of slopes and distances on site.

A number of general bushfire management development issues have been identified in the assessment. The assessment also identifies specific development issues for each of the investigation areas and how likely it is that development may comply with the Bushfire Protection Criteria of:

- Element 1 - Location;
- Element 2 - Siting and design of development;
- Element 3 - Vehicular access; and
- Element 4 - Water.

The categories which have been used to consider these are:

- Extreme - Unlikely to meet the criteria.
- High - May meet the criteria subject to further investigation and design.
- Moderate - Should meet the criteria depending upon the design.
- Low - Expected to meet the criteria.

The purpose of this assessment is to identify where multiple factors may contribute to the suitability of one area in comparison to others. For example, an area might not have any "extreme" ratings but has multiple "high" ratings, suggesting that the area maybe unlikely to be suitable for more intensive development.

The relevant issues have also been shown spatially for each investigation area.

It is recommended that subdivision and development should comply with the following general recommendations:

- A. Subdivision and development on bushfire prone land is to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.
- B. That any structure planning for the proposed policy areas must address bushfire management issues and the co-ordination of bushfire management measures.
- C. That district and local ecological corridors and environmental buffer areas should be identified or referenced in the local planning strategy and form part of any detailed bushfire hazard assessment.
- D. That the provision of multiple access especially for subdivisions by either a public road, emergency access way or fire service access route be given high priority in the planning for all policy areas.
- E. That it be acknowledged that the clearing of remnant vegetation to the "minimum extent necessary" to permit development is based upon the setbacks required for a BAL-29 rating.
- F. That any structure plan or Scheme review consider the location, zoning permissibility and development criteria for vulnerable and high-risk land uses.

The recommendations for the individual development investigations areas are:

B1 East Boyanup

1. That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access and the interface between development and bushland areas. Consider removing areas of extreme hazard (adjacent to state forest in the east and Armstrong Road to the south) where development may be likely to be exposed to an extreme bushfire hazard.

B2 Salter Road

2. That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access. In particular the formalisation of public road access across the railway corridor to Payne Street, by the saleyards.

B3 South Western Highway

3. That the Strategy note that there is a moderate constraint to development and subdivision can occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.

B4 Boyanup Enterprise Park

4. That the Strategy note that the precinct is not designated as being bushfire prone and has low constraints for development. However, it will be desirable for a fire service access route to be provided adjacent to the railway line.

C1 Maitland Road

5. That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access.

C2 Weld Road/East Road

6. That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access. A direct road connection between Jamieson and Weld Roads is required.

C3 Capel Drive

7. That the Strategy note that there is a moderate constraint to development. Road access will need to be addressed following the finalisation of the Bussell Highway / Capel interchange.

C4 South East Capel

8. That the Strategy note that the northern portion of the precinct has significant constraints to development due to the existing vegetation and potential access issues. The existing structure plan should be reviewed due to the proposed extensive vegetation clearing which may no longer be acceptable.
9. That the Strategy note that the southern portion of the precinct has a moderate constraint to development; and that subdivision can occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.

C5 Jenkin Rd (Iluka)

10. That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access.

C6 LIA Expansion

11. That the Strategy note the moderate to high constraint to development due to the access issue.

12. That any proposed structure plan consider:

- The provision of secondary access to Bussell Highway and/or Range Road. Any proposed Emergency Access Way must demonstrate why a public road cannot be provided; and
- A significant asset protection zone between the development and the bushland (POS) area on the corner of Spurr Street and Bussell Highway.

13. The design objective for any subdivision would be for the proposed buildings to be located so has to have a BAL-12.5 rating.

D1 Greenpatch

14. That the Strategy note that there is a high constraint to development and without a second access the site is not suitable for further subdivision.

15. The maintenance of bushland areas and landscaping specifications within the proposed POS areas must have regard to bushfire management principles.

D2 Dalyellup Surf Club Precinct

16. That the Strategy note that there is a high constraint to development and the need to have a clearly defined hazard separation zone especially along the southern boundary

17. The maintenance of bushland areas and landscaping specifications within the proposed POS areas and ecological corridor must have regard to bushfire management principles.

D3 Dalyellup South

18. That the Strategy note that there is a high constraint to development for the southern portion due to the bushland within and surrounding the site.

19. Any review of the structure plan should promote additional hazard separation zones around the boundary of the site.

20. That the Strategy note that the land on the northern side of Harewoods Road is a legacy site with little opportunity for being redesigned.

D4 Wake Drive

21. That the Strategy note that the majority of the precinct is not designated as being bushfire prone and has low constraints to development. The bushfire prone land is the 100m buffer from the southern boundary. Subdivision can occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.

D5 Parade Road

22. That the Strategy note that the majority of the precinct is not designated as being bushfire prone and has low constraints to development. The bushfire prone land is the 100m buffer from the northern and western boundaries. Subdivision can occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.

D6 Dalyellup Business Precinct

23. That the Strategy note that the precinct is not designated as being bushfire prone and has no constraints for development.

PGB1 Hayfield Drive

24. That the Strategy recognise that PGB1 has high to extreme development constraints and is not suitable for further subdivision. Consider removing from the Strategy as a DIA.

Document Reference

Property Details

Street No	Lot No's	Plan	Street Name
Locality	Capel, Boyanup, Dalyellup and Peppermint Grove Beach	State WA	Postcode 6271
Local Government Area	Capel		
Description of the building or works	Local Planning Strategy		

Report Details

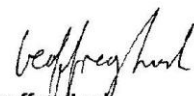
Revision	Date	Job No 16 - 063
A	10/04/2017	Preliminary Draft
B	13/09/2017	Implementation Table
C	09/03/2022	Revised investigation areas Bushfire Guidelines Version 1.4
D	22/11/2022	Final approval modifications

Practitioner Details

BPAD	Level 2 Practitioner	Accreditation No	27682

Disclaimer

The measures contained in this report do not guarantee that a building will not be damaged in a bushfire. The ultimate level of protection will be dependent upon the design and construction of the dwelling and the level of fire preparedness and maintenance under taken by the landowner. The severity of a bushfire will depend upon the vegetation fuel loadings; the prevailing weather conditions and the implementation of appropriate fire management measures.



Geoffrey Lush

22 November 2022
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1.0 BACKGROUND

1.1 Introduction

This bushfire hazard level assessment is prepared to assist in the formulation of the Shire of Capel Local Planning Strategy and new Local Planning Scheme No 8.

It focusses on proposed development investigation areas in or adjacent to the Capel townsite, Boyanup, Dalyellup and Peppermint Grove Beach. There are seventeen development investigation areas as shown in Figures 1, 2 and 3.

The original assessment was prepared in 2017 for the Capel and Boyanup townsite areas. Since then, the draft Local Planning Strategy has evolved to include parts of Dalyellup and Peppermint Grove Beach, with the investigations areas for Capel and Boyanup being revised.

The objectives for this bushfire hazard level assessment are:

- 1) To examine those areas which are identified for development in the draft Local Planning Strategy, to determine their suitability for development;
- 2) To identify areas that require a more detailed analysis before any development /subdivision occurs;
- 3) To identify any bushfire management issues and any spatial impact of such issues which should be considered in the preparation of a structure plan; and
- 4) To document how the recommendations of this BHL assessment can be implemented in the relevant planning stages.

The assessment is concerned with the intensification of land use primarily by subdivisions. Intensification of land use through development approvals will generally be by applications which do not have a scale that is consistent with the existing development. It is also concerned with vulnerable land uses.

Previous national inquiries (1) into major bushfires have recognised that land use planning is the single most important mitigation measure for preventing future disaster losses from bush fires in areas of new development. It is therefore important for bushfire assessments to be incorporated as early as possible in to the planning process.

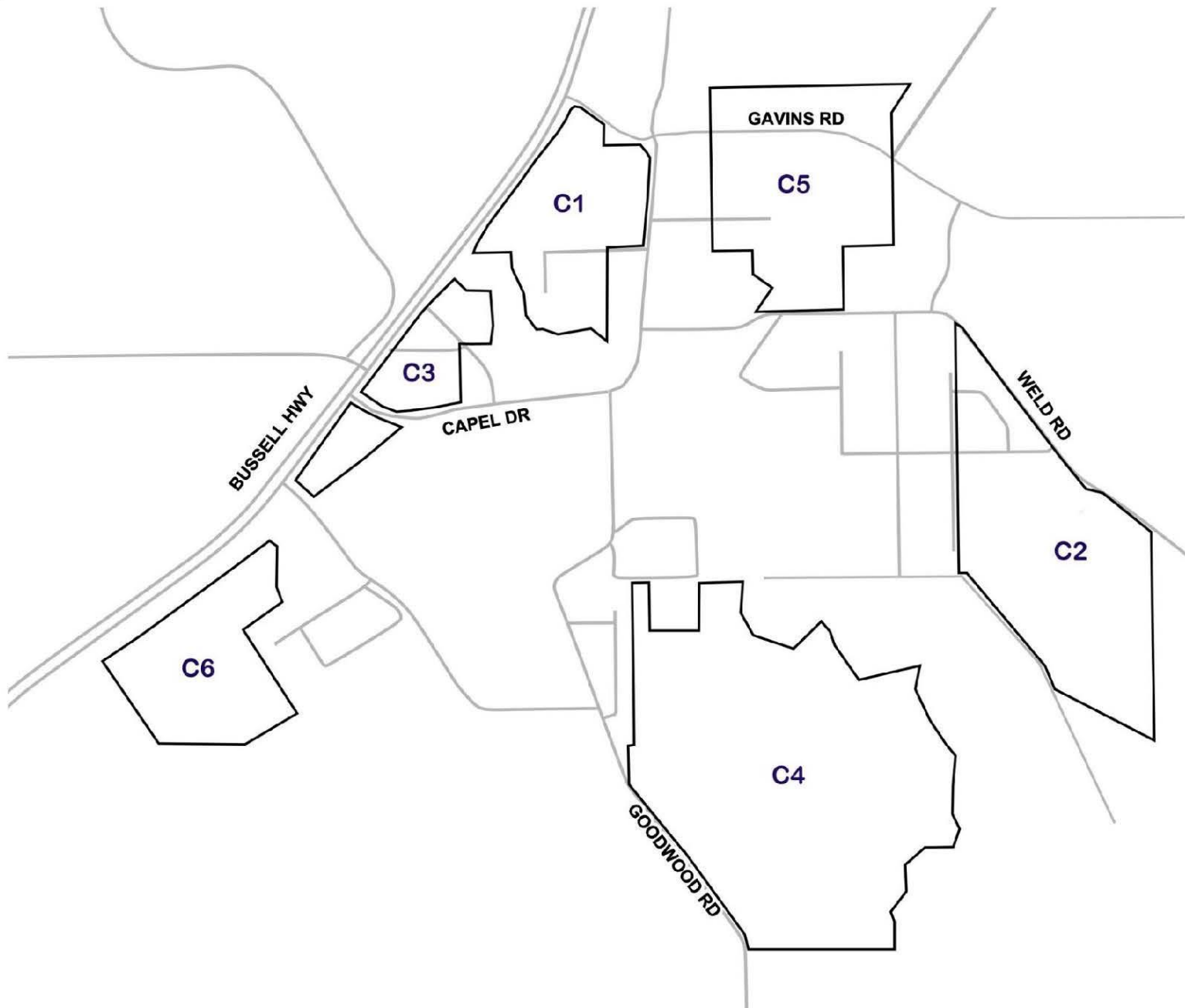
1.2 Methodology and Assumptions

The bushfire hazard assessment in this report is a "broad brush" assessment to support the preparation of the local planning strategy. The purpose of the assessment is to:

- a) Identify areas with a moderate or extreme hazard rating which require a more detailed analysis before any development / subdivision occurs;
- b) To identify any wider bushfire management issues in the locality which should be considered; and
- c) Ensure that bushfire management measures are considered as early as is possible in the planning process.

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1 Council of Australian Governments (2004), National Inquiry on Bushfire Mitigation and Management, Page 92.



LEGEND

CAPEL INVESTIGATION AREAS

- C1 MAITLAND RD
- C2 WELD RD / EAST RD
- C3 CAPEL DRIVE
- C4 SOUTH EAST CAPEL
- C5 JENKIN RD (ILUKA)
- C6 LIA EXPANSION

FIGURE 1
CAPEL INVESTIGATION AREAS

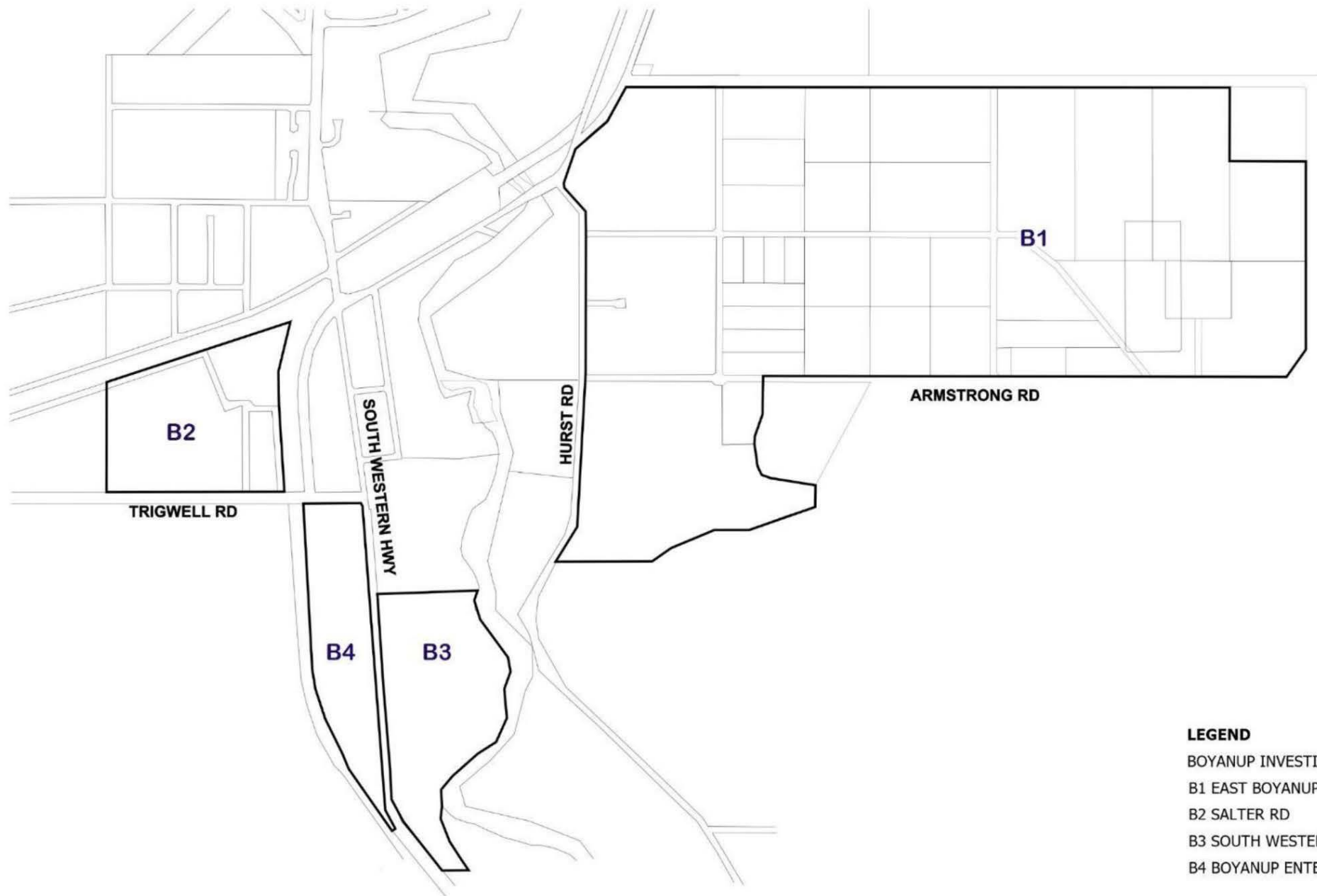


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C	Final Approval	15/11/2022



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- LEGEND**
- BOYANUP INVESTIGATION AREAS
 - B1 EAST BOYANUP
 - B2 SALTER RD
 - B3 SOUTH WESTERN HWY
 - B4 BOYANUP ENTERPRISE PARK

FIGURE 2
BOYANUP INVESTIGATION AREAS

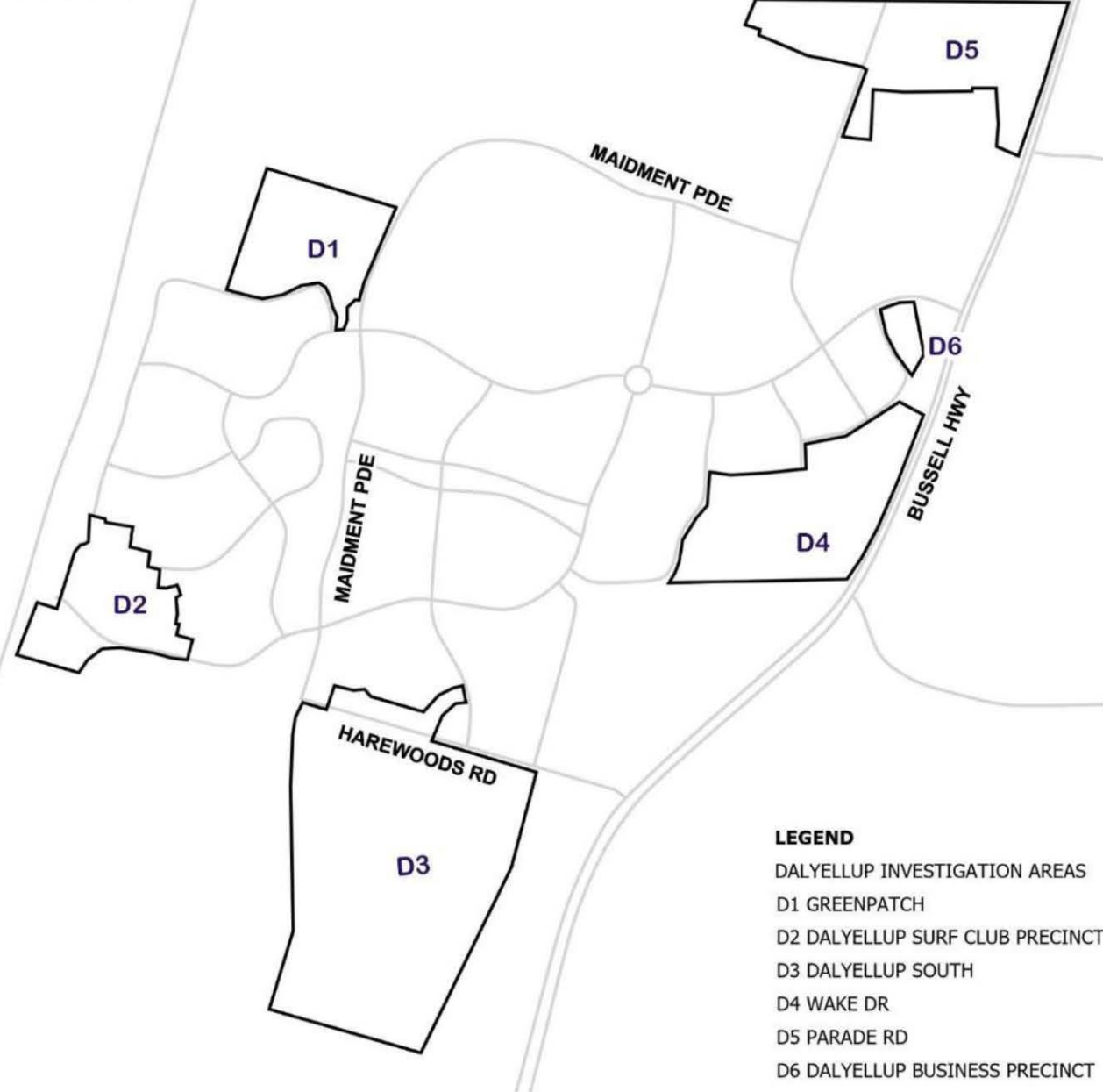


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 B Rev DIAs

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 14/02/2022



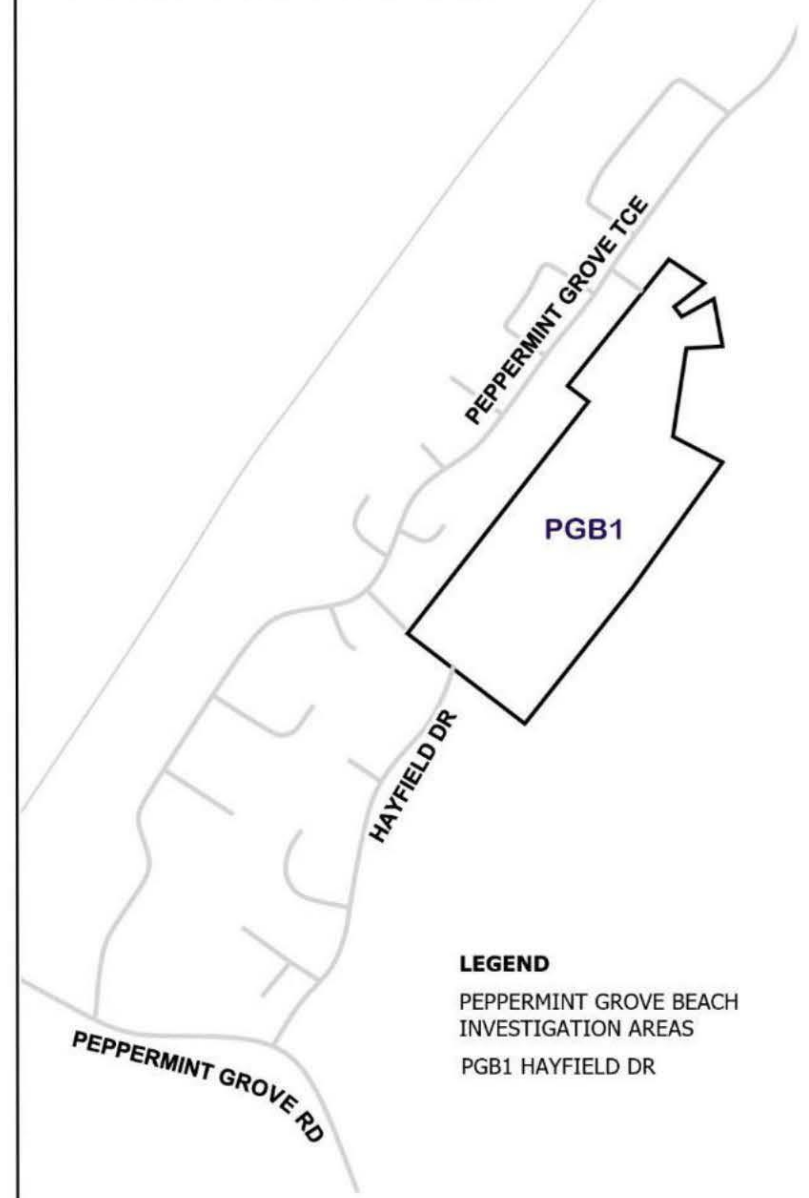
DALYELLUP



LEGEND

- DALYELLUP INVESTIGATION AREAS
- D1 GREENPATCH
- D2 DALYELLUP SURF CLUB PRECINCT
- D3 DALYELLUP SOUTH
- D4 WAKE DR
- D5 PARADE RD
- D6 DALYELLUP BUSINESS PRECINCT

PEPPERMINT GROVE BEACH



LEGEND

- PEPPERMINT GROVE BEACH INVESTIGATION AREAS
- PGB1 HAYFIELD DR

FIGURE 3
DALYELLUP, PEPPERMINT GROVE BEACH
INVESTIGATION AREAS



Job No 21-053

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Date
10/01/2017
14/02/2022



The bushfire hazard level assessment has been prepared in accordance with the methodology contained in the Guidelines for Planning in Bushfire Prone Areas (Version 1.4 December 2021). It is noted that since the previous version of this report that the introduction of the revised version of AS3959 Construction of Buildings in Bushfire Prone Areas in 2019 which alterations to the vegetation classifications used to determine Bushfire Attack Level (BAL) ratings.

The preparation of this assessment has included:

- Site Inspections;
- Reviewing district vegetation surveys;
- Reviewing existing structure plans and Bushfire Management Plans;
- Use of aerial photography; and
- Measurement of slopes and distances on site.

It is noted that the consultant did not have any authority to enter private property and all inspections were conducted from public areas. Where an area could not be physically inspected the vegetation type and hazard rating has been assigned on the basis of the surrounding complexes.

The following assumptions have been made in the report:

1) Existing Conditions

The assessment has been undertaken based upon the existing conditions at that time. The assessment does not consider any vegetation modification or fuel reduction which might be done as part of a development.

The vegetation classifications are also based upon the expected mature state of any vegetation.

2) Predominant Vegetation

The Guidelines recommend that vegetation types be mapped based upon units of 2,500m² but at the scale of this assessment this would require significant time and effort without providing any substantial improvement in the analysis. The predominant vegetation type in and adjacent to each investigation area has been used based on 1 hectare units.

3) Slope

Slope is the predominant gradient of the vegetated areas measured over 100m distance. At the scale of this assessment the slopes are general by nature and tend to be averaged with the following terms being used:

- Low slope means a slope of between 0 and 5 degrees (10%);
- Moderate slope means a slope of between 5 and 10 degrees (18%);
- Steep slope means a slope of between 10 and 15 degrees (28%); and
- Very steep slope means a slope of between 15 and 20 degrees (40%).

A slope of more than 10 degrees is important as the rate of spread and intensity doubles.

1.3 Land Use

The existing conditions for each investigation area are shown in the relative figures in Section 5.0

Capel townsite is located immediately to the east of Bussell Highway at the approximate mid-point between the major regional towns of Busselton to the south and Bunbury to the north. The town also acts as a transport hub for traffic travelling to Boyanup and Donnybrook. Capel is the main administrative, community and service centre in the Shire. The town provides a range of services to the resident and surrounding rural population including local retail and commercial facilities, primary school, community

centre and halls, shire offices, recreational facilities and open space, light industrial and service commercial uses, refuse disposal site, tavern and churches.

The townsite of Boyanup is located on the South Western Highway at the junction of:

- Trigwell Road which provides access to Capel; and
- The Boyanup - Picton Roads which provides access to Dardanup and Picton.

Boyanup provides a range of services to the resident and surrounding rural population including local retail and commercial facilities, primary school, community centre and halls, recreational facilities and open space, light industrial and rural and service commercial uses, tavern and churches.

Dalyellup is a rapidly growing urban area in the north of the Shire, adjoining the City of Bunbury, with a developing district centre and a resident population in excess of 9,000 persons.

Peppermint Grove Beach is a village approximately six kilometres north west of Capel with a population of approximately 500 persons. It was established in the 1970s on coastal dunes between Geopraphe Bay and estuarine wetlands. It has a high influx of holiday makers and beach users during summer and many of the existing dwellings are holiday homes. There is a caravan park with an associated shop, community centre and bushfire brigade. The nearest townsite services and facilities are at Capel (2).

1.4 Climate

The Study Area generally experience a temperate climate characterised by mild, wet winters and warm to hot, dry summers. The mean maximum temperature reaches 30° C in February with the highest recorded maximum temperature being 40° C in February 2014 (3). The lowest mean maximum temperature is 11° C in August and there is an average rainfall of 728 mm per year.

In summer, there is an average of:

- 52 days with temperatures over 30° C; and
- 10 days with temperatures over 35° C.

The Shire generally has calmer mornings with wind from the south east to north east, followed by an afternoon sea breeze from the south west. During summer however, the formation of low-pressure troughs along the west coast may occur. These systems can create hot, dry northerly and north easterly winds across the shire, with low humidity and strong winds. These conditions need to be considered for both fire response and mitigation activities, with a higher risk of more intense fires coming from the north on a trough movement (4).

The fire weather season can be loosely defined as the period during which the fuel state and the atmospheric conditions are conducive to the spread of fire. The fire weather season extends from approximately mid-October to mid-May. Severe, Extreme or Catastrophic fire weather days occur when the Fire Danger Index (FDI) is equal to or greater than 50. These are significant to fire agencies because of the difficulty of suppressing fires under these conditions.

1.5 Topography

The slopes in both Boyanup and Capel townsites are generally low being less than 3 degrees (5 percent) with few moderate slopes. Both towns have short steep slopes associated with the river corridors dividing the townsites.

2 WAPC (2022) Bunbury Geopraphe Sub Regional Strategy page 35
3 Bureau of Meteorology Bunbury Weather Station No 9965
4 Shire of Capel (2021) Bushfire Risk Management Plan Section 3.2.2

In Dalyellup and Peppermint Grove Beach, steeper localised slopes are found in conjunction with the coastal dunal system.

1.6 Vegetation

There are extensive areas of vegetation within both townsites on both public and private land. Pre-European vegetation in the Shire of Capel consisted of large tracts of tall forest and woodland communities, with primary species being Jarrah and Marri which are common throughout the south west land division. The coastal areas have greater diversity of vegetation communities with Tuart Forest, woodland and shrubland communities such as Banksia, Peppermint and Paperbark.

In many areas including roadside verges, the management of weeds is an ongoing issue.

1.7 Bushfire Risk Management Plan

Under the State Hazard Plan for Fire (Westplan Fire) an integrated Bushfire Risk Management (BRM) Plan is to be developed for local government areas with significant bushfire risk and the Shire of Capel has been identified as an area of such risk. The aim of the BRM Plan is to document a coordinated and efficient approach toward the identification, assessment and treatment of assets exposed to bushfire risk within the Shire of Capel.

The BRM identifies Dalyellup, Peppermint Grove Beach, Capel, and Boyanup as residential townsites, noting the rural-urban interface.

Peppermint Grove Beach is also identified as having a special risk being a location where occupants may be especially vulnerable to bushfire for multiple reasons including:

- A reduced capacity to evaluate risk and respond adequately to bushfire event
- There may be significant communication barriers with occupants.
- Relocation and/or management of occupants may present unique challenges or difficulties, such as transportation, or providing alternative accommodation, healthcare, or food supplies.

1.8 Bush Fire Mitigation Notice

The Shire's 2021 - 2022 Bush Fire Mitigation Notice requires that:

- ❖ All properties shall maintain a 20m wide low fuel zone around habitable buildings;
- ❖ On residential properties grass must not exceed 10cm in height;
- ❖ Residential properties larger than 2,024sqm there is to be either a 3m wide boundary firebreak; or the entire property is to be maintained as a low fuel zone; and
- ❖ Special rural properties shall have a 3m boundary firebreak.

1.9 Bushfire Prone Areas

Bushfire prone land is shown on the State Map of Bushfire Prone Areas. Bushfire prone areas are comprised of bushfire prone vegetation and a 100m buffer (5). Vegetation is identified as bushfire prone where it meets the following size and proximity requirements:

- Areas of 1 hectare or greater in size;
- Less than 1 hectare to 0.25 hectares in area and 100 metres or less from other bushfire prone vegetation 1 hectare or greater in area;
- Is less than 0.25 hectares in area but is 20 metres or less from bushfire prone vegetation of any size; or

⁵ DFES (2015) Mapping Standard for Bush Fire Prone Areas.

- Strips of vegetation 20 metres or greater in width regardless of length and 20 metres or less from each other or bush fire prone vegetation of any size.

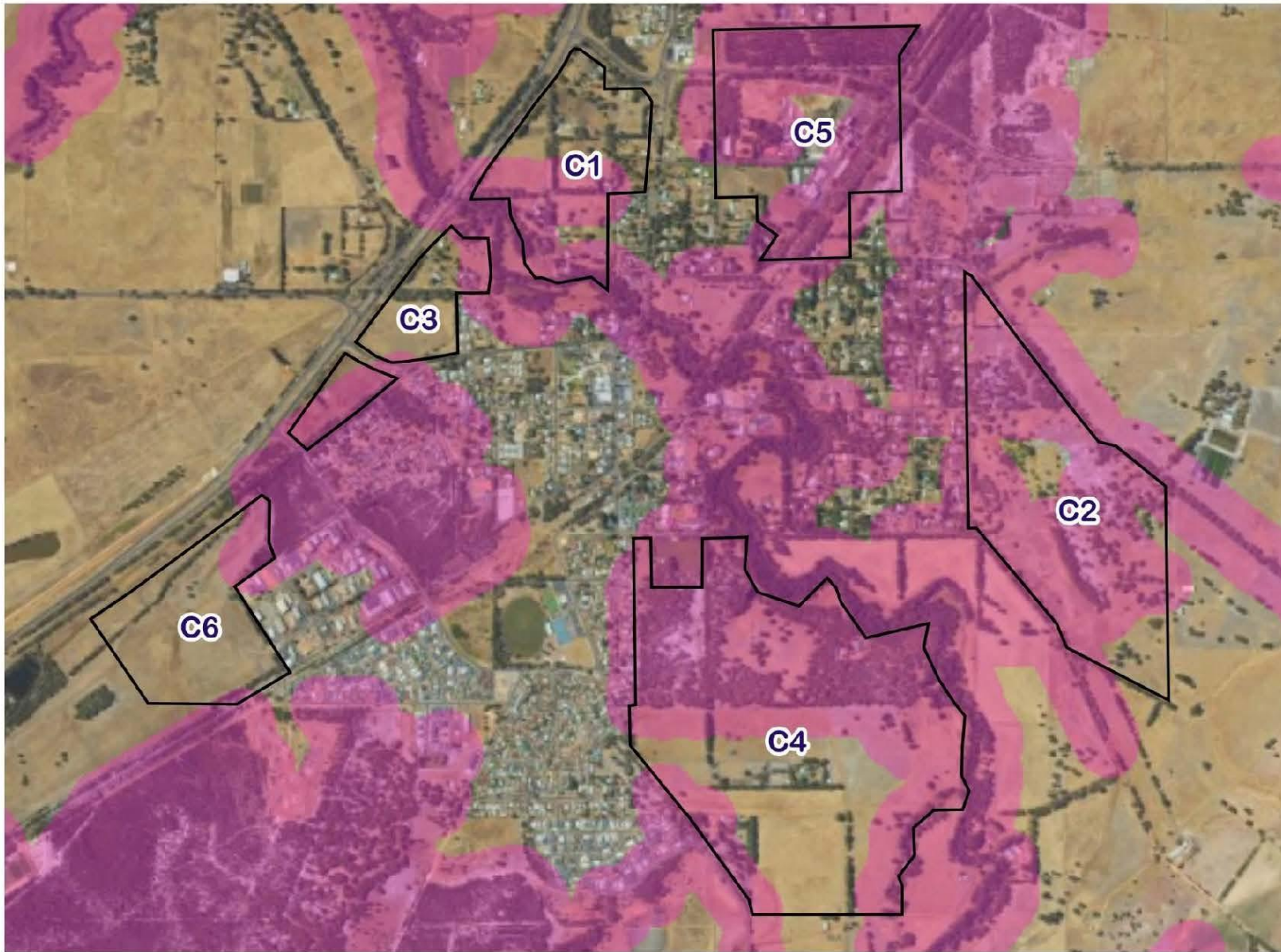
The designation of a bushfire prone area triggers:

- The application of Australian Standard AS3959 Construction of Buildings in Bushfire Prone Areas under the Building Code of Australia;
- The provisions of the Planning and Development (Local Planning Schemes) Regulations 2015; and
- The application of State Planning Policy SPP3.7 Planning in Bushfire Prone Areas.

State Planning Policy SPP3.7 Planning in Bushfire Prone Areas provides in Clause 6.2 that any strategic planning proposal, that has or will, on completion, have a moderate BHL and/or where BAL-12.5 to BAL-29 applies, may be considered for approval where it can be undertaken in accordance with the following policy measures.

- a) the results of a bushfire hazard level assessment determining the applicable hazard level(s) across the subject land, in accordance with the methodology set out in the Guidelines.
- b) the identification of any bushfire hazard issues arising from the assessment; and
- c) clear demonstration that compliance with the bushfire protection criteria in the Guidelines can be achieved in subsequent planning stages.

Extracts of the Map of Bushfire Prone Land for the investigation areas are shown in Figures 4, 5, 6 and 7.



LEGEND

- INVESTIGATION AREAS ———
- C1 MAITLAND RD
- C2 WELD RD / EAST RD
- C3 CAPEL DRIVE
- C4 SOUTH EAST CAPEL
- C5 JENKIN RD (ILUKA)
- C6 LIA EXPANSION

- BUSHFIRE PRONE LAND (2021)

FIGURE 4
CAPEL BUSHFIRE PRONE AREAS



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B	Rev DIAs	14/02/2022
C	Final Approval	15/11/2022



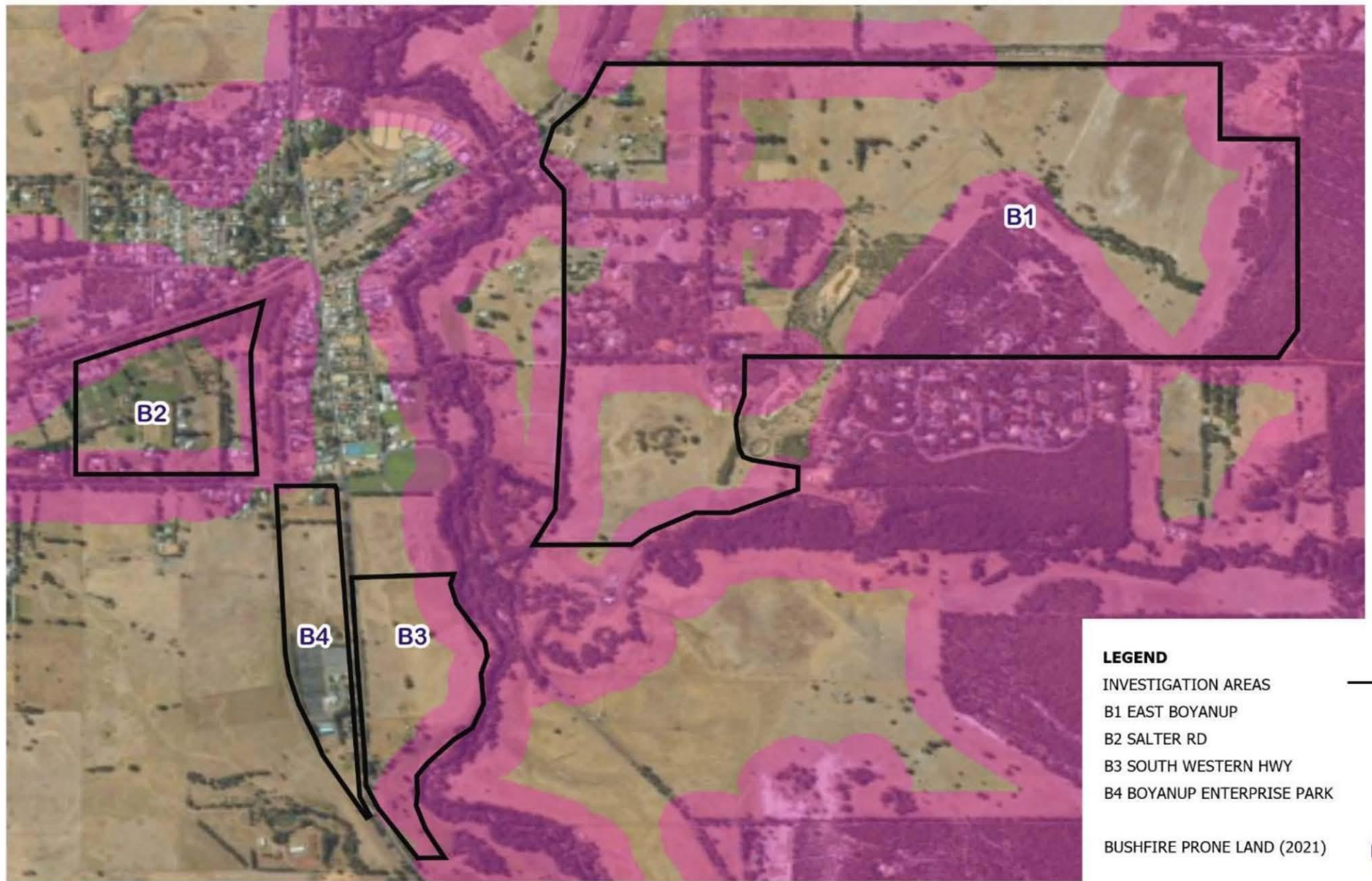
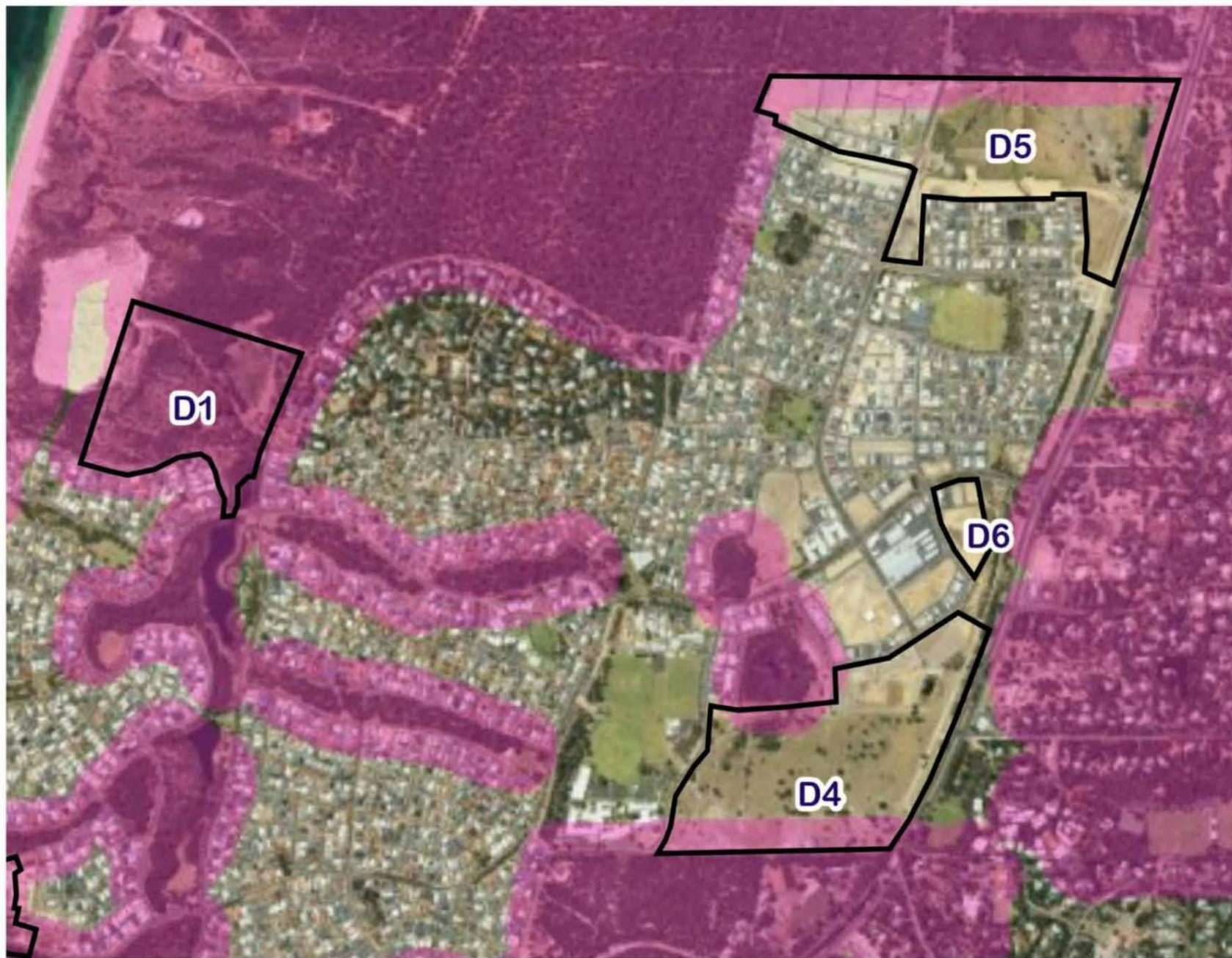


FIGURE 5
BOYANUP BUSHFIRE PRONE AREAS



LEGEND

- INVESTIGATION AREAS ———
- D1 GREENPATCH
 - D2 DALYELLUP SURF CLUB PRECINCT
 - D3 DALYELLUP SOUTH
 - D4 WAKE DR
 - D5 PARADE RD
 - D6 DALYELLUP BUSINESS PRECINCT
- BUSHFIRE PRONE LAND (2021)

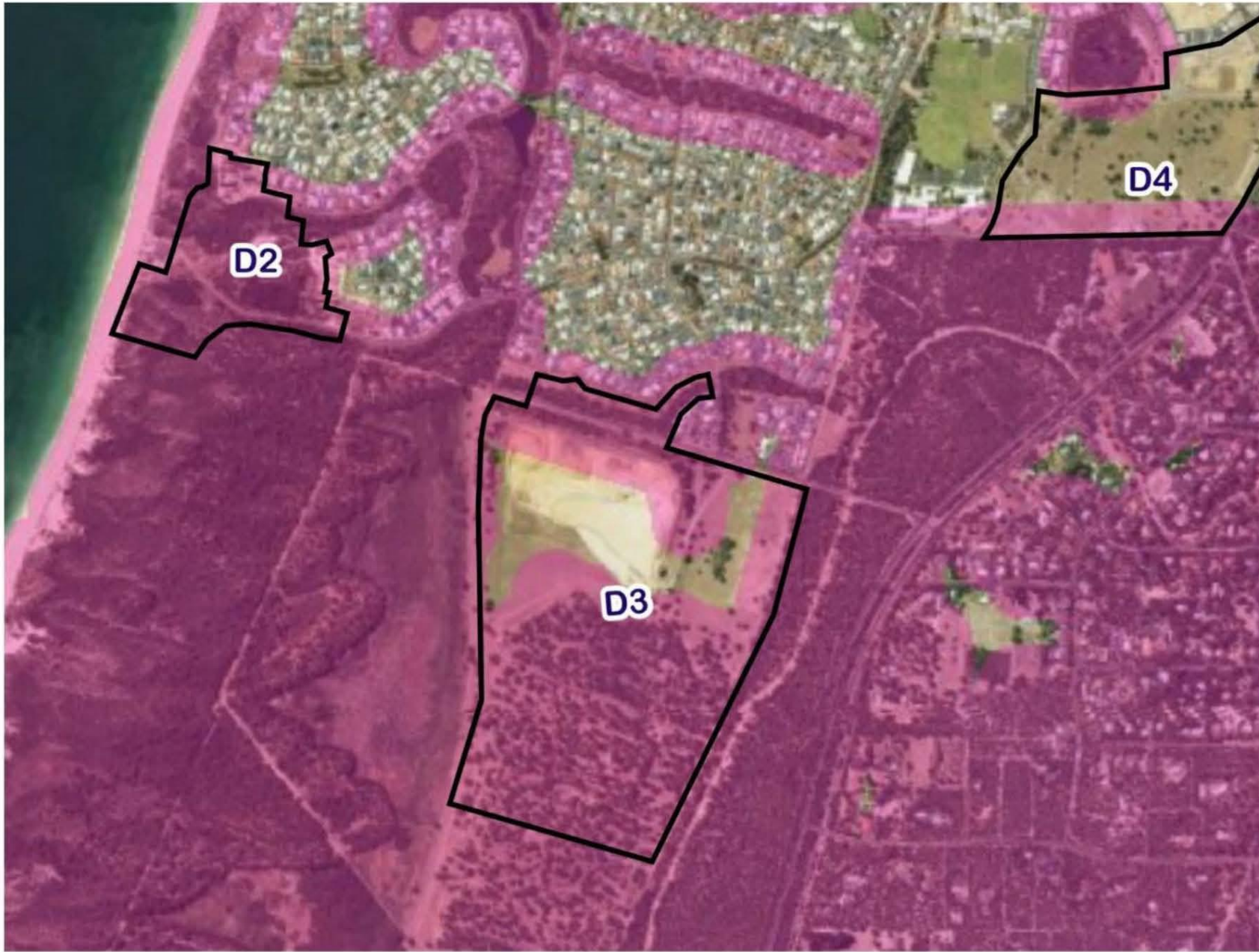
FIGURE 6
DALYELLUP BUSHFIRE PRONE AREAS
(SHEET 1 OF 2)



Job No 21-053
Rev A Preliminary
Rev B Rev DIAs

Date
10/01/2017
14/02/2022





LEGEND

- INVESTIGATION AREAS ———
- D1 GREENPATCH
 - D2 DALYELLUP SURF CLUB PRECINCT
 - D3 DALYELLUP SOUTH
 - D4 WAKE DR
 - D5 PARADE RD
 - D6 DALYELLUP BUSINESS PRECINCT
- BUSHFIRE PRONE LAND (2021)

FIGURE 6
DALYELLUP BUSHFIRE PRONE AREAS
(SHEET 2 OF 2)



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2.0 ENVIRONMENTAL CONSIDERATIONS

State Planning Policy 3.7 (SPP3.7) policy objective 5.4 recognises the need to consider bushfire risk management measures alongside environmental, biodiversity and conservation values. Typically, these may include:

- ❖ Bush Forever sites;
- ❖ Threatened ecological communities;
- ❖ Declared rare flora;
- ❖ Environmentally sensitive areas;
- ❖ Classified wetlands and associated buffers;
- ❖ Ecological corridors;
- ❖ Conservation covenants; and
- ❖ Significant areas identified in a local planning or biodiversity strategy.

The Shire contains significant numbers of threatened flora, vegetation communities and fauna that are protected by both State and Commonwealth legislation. The major Threatened Ecological Communities (TECs) are the Tuart forests and Banksia Woodlands, both of which are federally listed communities.

The Strategy identifies a number of ecological corridors which affect the investigation areas. There and other site-specific environmental factors are also addressed in the relevant Local Structure Plans.

3.0 BUSHFIRE ASSESSMENT RESULTS

3.1 Assessment Inputs - Vegetation Classification

All vegetation within 150m of the site / proposed development was classified in accordance with:

- Clause 2.2.3 of Australian Standard AS3959 Construction of Buildings in Bushfire Prone Areas;
- The Visual Guide for Bushfire Risk Assessment in Western Australia; and
- Applicable Fire Protection Australia BPAD Practice Notes.

It is noted that AS3959 (2018) commenced operation from the 1st May 2019 and this alters the classification of woodland and scrub. Woodlands are now defined as having a grassy understorey with isolated shrubs while Scrub vegetation (tall heath) has been increased from 4 to 6m height.

Given the generalised nature of the assessment, a conservative approach has been taken with the vegetation classifications. This means that where the vegetation classification may not be clear then:

- Class A Forest classification is used in preference to Class B Woodland; and
- Class D Scrub classification is used in preference to Class C Shrubland

The vegetation classifications are shown in Figures 8, 9, 10 and 11. Photographs of the vegetation plots for individual investigation areas are included in Section 5.0. Photographs from previous assessments have also been used where there has not been any change in the vegetation.

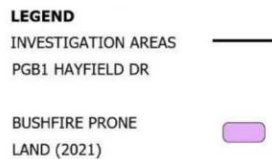
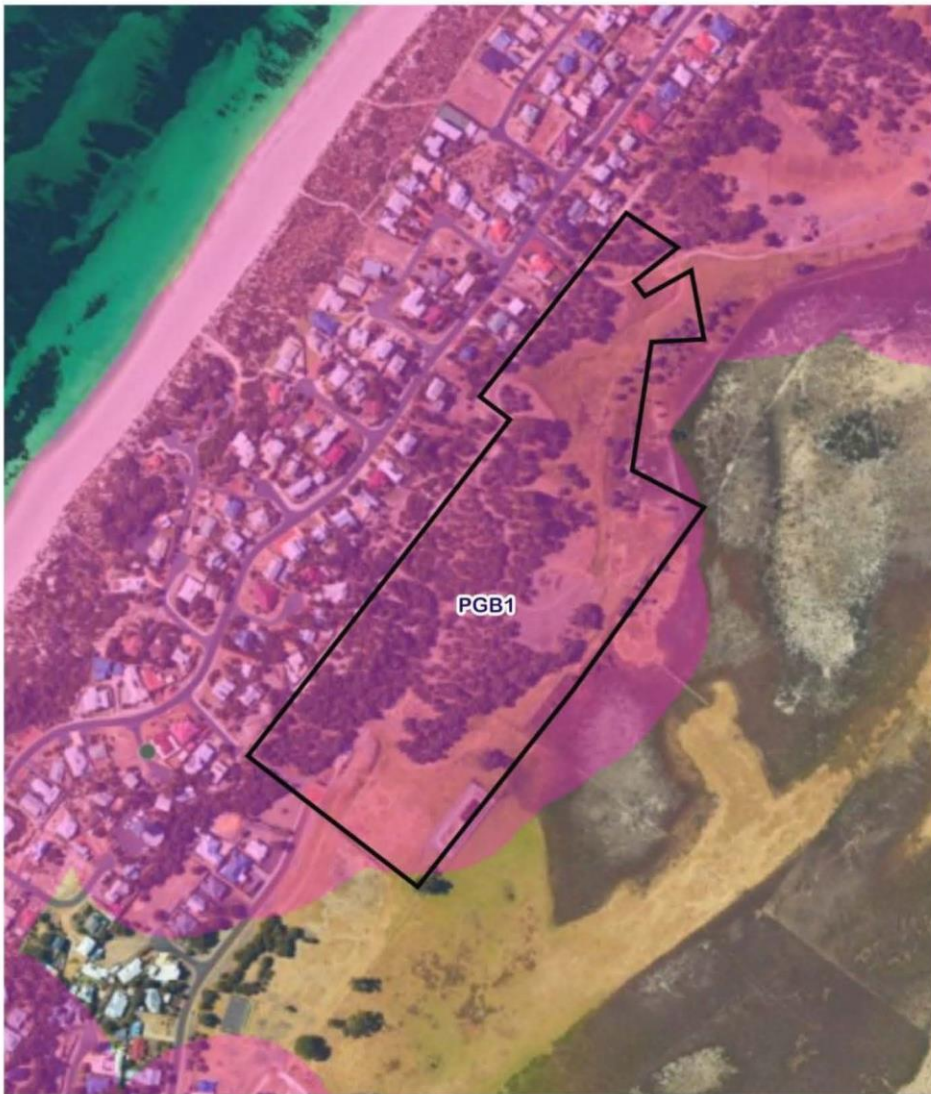
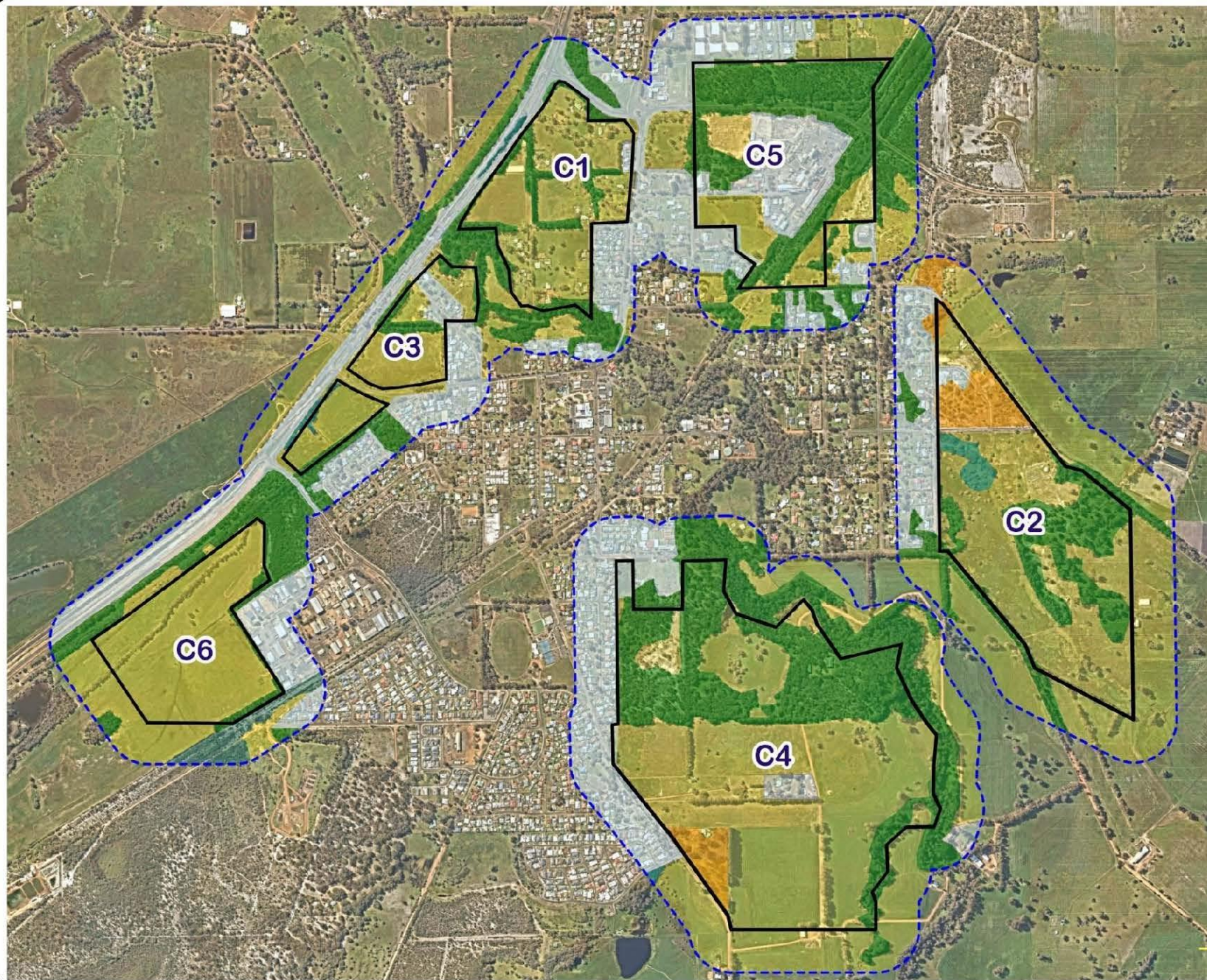


FIGURE 7
PEPPERMINT GROVE BEACH
BUSHFIRE PRONE LAND



LEGEND

INVESTIGATION AREAS ———

VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject land) - - - - -

VEGETATION CLASS

- A FORREST
- B WOODLAND
- C SHRUBLAND
- D SCRUB
- G GRASSLAND
- EXCLUDED 2.2.3.2 (Low Threat Vegetation)

Location Details: Dalyellup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation Number: BPAD 27682
 Accreditation Expiry Date: February 2023
 Date of Aerial Photo: September 2021

FIGURE 8
 CAPEL VEGETATION CLASSIFICATIONS



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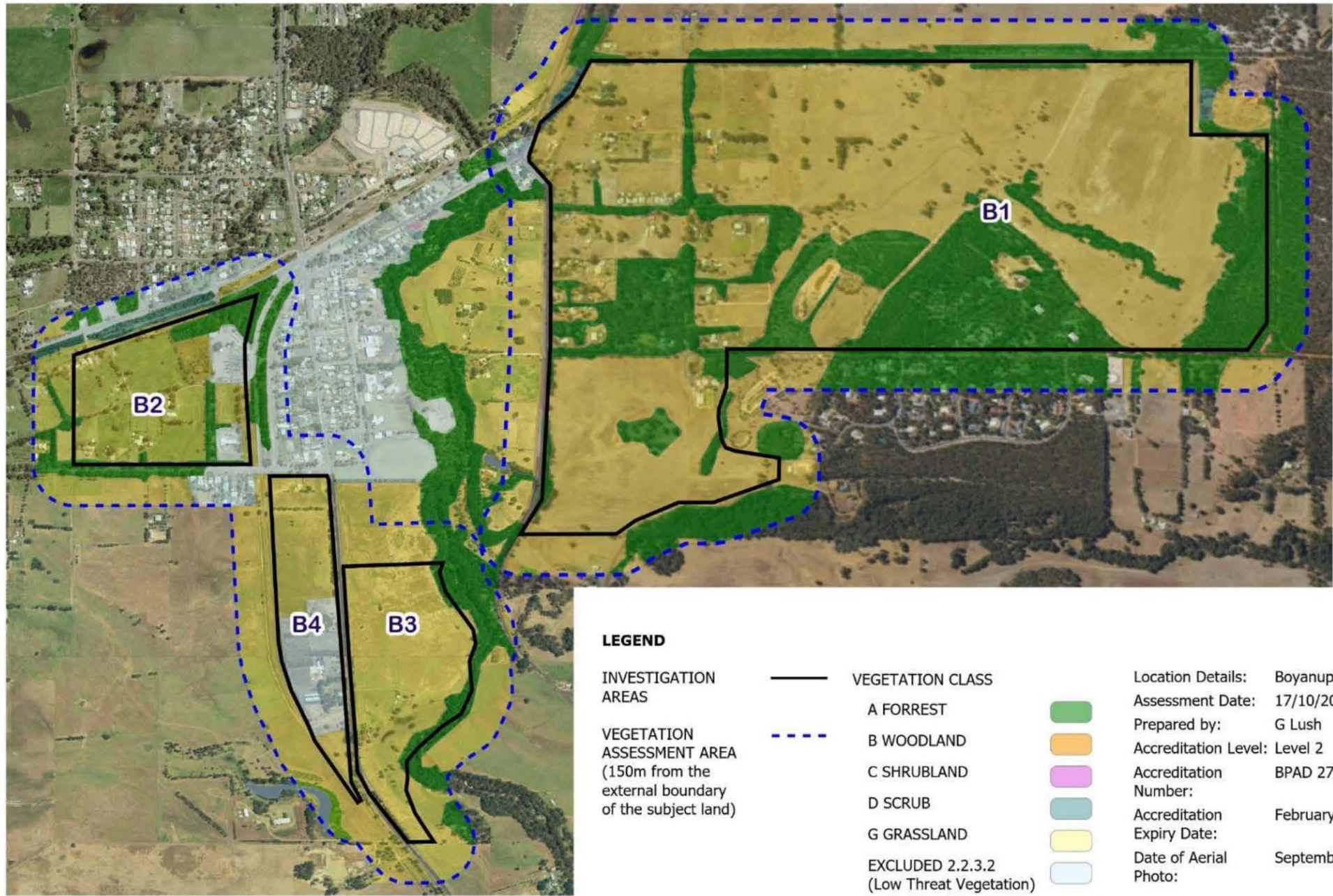


FIGURE 9
BOYANUP VEGETATION CLASSIFICATIONS

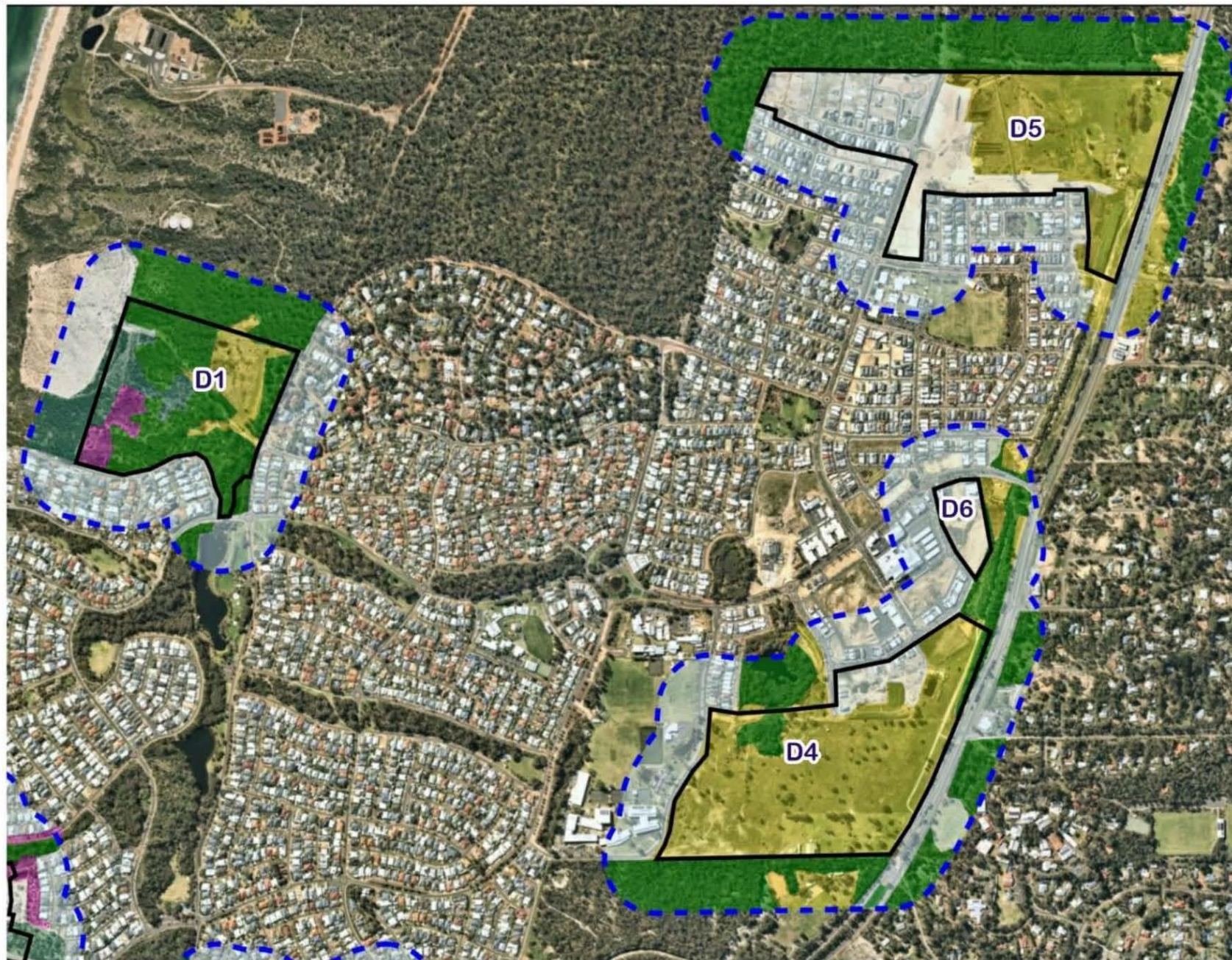


Job No 21-053

Rev	Description
A	Preliminary
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Date	10/01/2017
Date	14/02/2022





LEGEND

INVESTIGATION AREAS ———

VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject land) - - - - -

VEGETATION CLASS

- A FORREST
- B WOODLAND
- C SHRUBLAND
- D SCRUB
- G GRASSLAND
- EXCLUDED 2.2.3.2 (Low Threat Vegetation)

Location Details: Dalzellup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation Number: BPAD 27682
 Accreditation Expiry Date: February 2023
 Date of Aerial Photo: September 2021

FIGURE 10
 DALYELLUP VEGETATION CLASSIFICATIONS
 (SHEET 1 OF 2)



Job No 21-053
 Rev A Preliminary
 Rev B Rev DIAs

Date 10/01/2017
 14/02/2022





LEGEND

INVESTIGATION AREAS ————

VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject land) - - - - -

- VEGETATION CLASS
- A FORREST
 - B WOODLAND
 - C SHRUBLAND
 - D SCRUB
 - G GRASSLAND
 - EXCLUDED 2.2.3.2 (Low Threat Vegetation)

Location Details: Dalzellup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation Number: BPAD 27682
 Accreditation Expiry Date: February 2023
 Date of Aerial Photo: September 2021

FIGURE 10
 DALYELLUP VEGETATION CLASSIFICATIONS
 (SHEET 2 OF 2)



Job No 21-053

Rev	Description
A	Preliminary
B	Rev DIAs

Date
10/01/2017
14/02/2022



3.2 Assessment Outputs - Bushfire Hazard Level

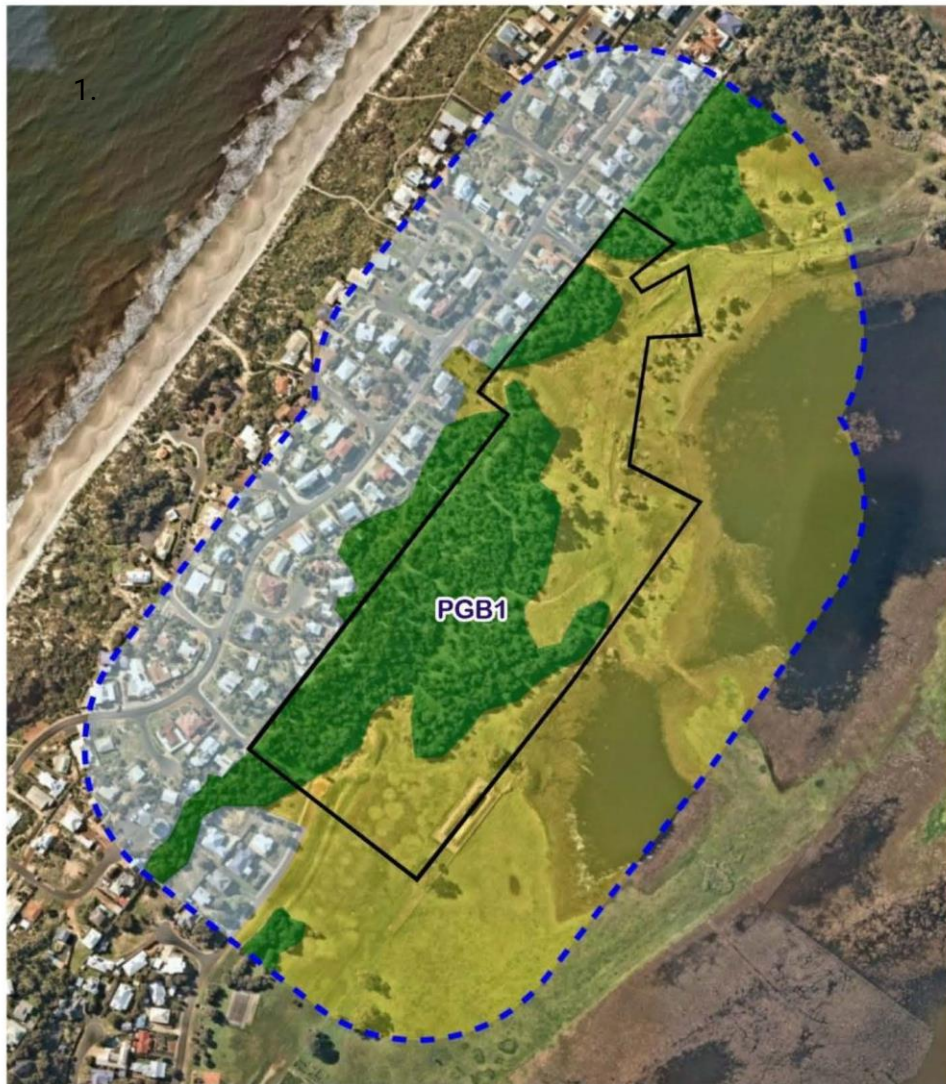
The bushfire hazard primarily relates to the vegetation on the site, the type and extent (area) of vegetation and its characteristics. The methodology for determining the bushfire hazard level is contained in the Guidelines for Planning in Bushfire Prone Areas (Section 4.1 and Appendix 2).

The characteristics of the different hazard categories (6) are documented in Table 2. The bushfire hazard levels based upon these categories are shown in Figures 12, 13, 14 and 15.

The bushfire hazard level plans are for the existing undeveloped site. For most of the investigation areas, it is assumed that when fully developed that the bushfire hazard levels within the precincts will reduce.

Table 1 Vegetation Classifications

Hazard Level	Vegetation Description
Extreme Hazard	<ul style="list-style-type: none"> Class A Forest Class B Woodland (05) Class D Scrub Any classified vegetation with a greater than 10 degree slope
Moderate Hazard	<ul style="list-style-type: none"> Class B Low Woodland (07) Class C Shrubland Class E Mallee/Mulga Class G Grassland including sown pasture and crops Vegetation that has a low hazard level but is within 100 metres of vegetation of vegetation classified as a moderate or extreme hazard.
Low Hazard	<ul style="list-style-type: none"> Low threat vegetation, may include the following: areas of maintained lawns, golf courses, public recreation reserves and parklands, vineyards, orchards; cultivated gardens, commercial nurseries, nature strips and windbreaks. Managed grassland in a minimal fuel condition meaning that there is insufficient fuel available to significantly increase the severity of the bushfire attack, for example short cropped grass to a nominal height of 100mm. Non vegetated areas including waterways; roads; footpaths; buildings or rock outcrops.



LEGEND

INVESTIGATION AREAS
 VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject land)



VEGETATION CLASS

- A FORREST
- B WOODLAND
- C SHRUBLAND
- D SCRUB
- G GRASSLAND
- EXCLUDED 2.2.3.2 (Low Threat Vegetation)



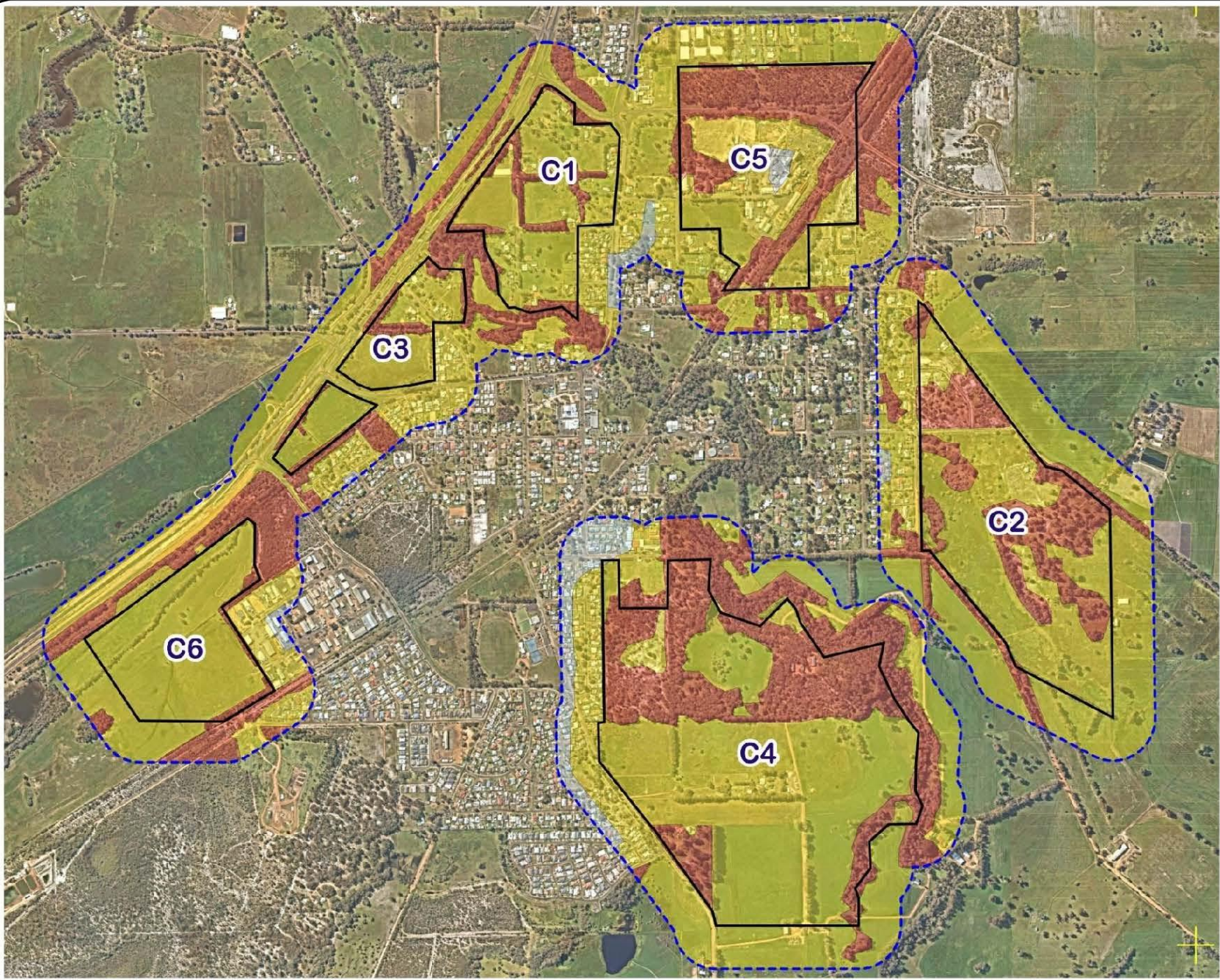
Location Details: Peppermint Grove Beach
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023

FIGURE 11
 PEPPERMINT GROVE BEACH
 VEGETATION CLASSIFICATION



Job No 21-053
 Rev A Description Preliminary Date 23/11/2021





LEGEND

INVESTIGATION AREA

VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject land)

VEGETATION HAZARD

EXTREME HAZARD

MODERATE HAZARD

LOW HAZARD

Location Details: Dalyellup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation Number: BPAD 27682
 Accreditation Expiry Date: February 2023
 Date of Aerial Photo: September 2021

FIGURE 12
 CAPEL BUSHFIRE HAZARD LEVELS



Job No 21-053

Rev	Description	Date
A	Preliminary	10/01/2017
B	Rev DIAs	14/02/2022
C	Final Approval	15/11/2022



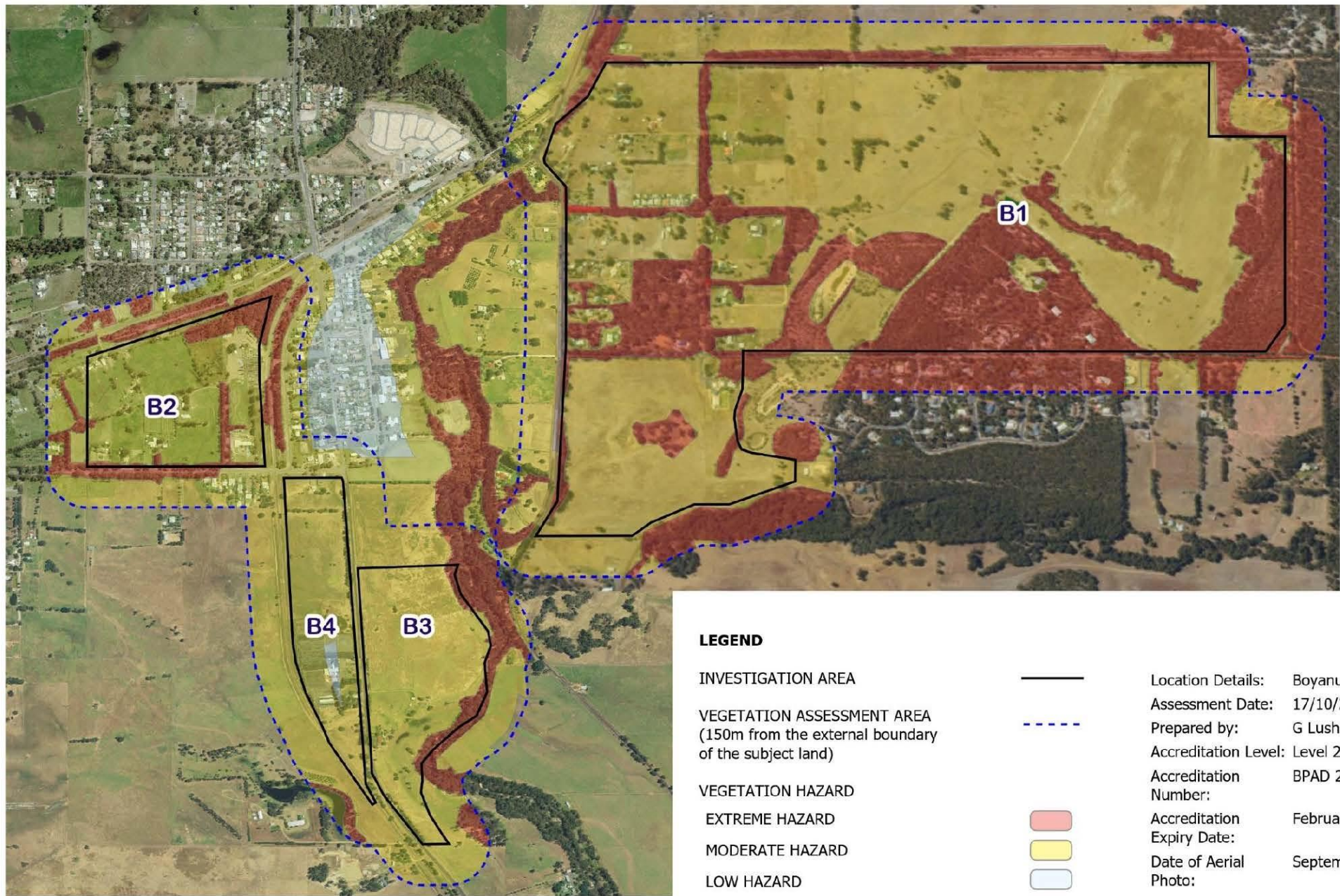


FIGURE 13
BOYANUP BUSHFIRE HAZARD LEVELS



Job No 21-053

Rev	Description	Date
A	Preliminary	10/01/2017
B	Rev DIAs	14/02/2022
C	Final Approval	15/11/2022





LEGEND

- INVESTIGATION AREA
- ASSESSMENT AREA (150m from the external boundary of the subject land)
- VEGETATION HAZARD
- EXTREME HAZARD
- MODERATE HAZARD
- LOW HAZARD

Location Details: Dalyellup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation Number: BPAD 27682
 Accreditation Expiry Date: February 2023
 Date of Aerial Photo: September 2021

FIGURE 14
 DALYELLUP BUSHFIRE HAZARD LEVELS
 (SHEET 1 OF 2)



Job No 21-053

Rev	Description
A	Preliminary
B	Rev DIAs

Date
10/01/2017
14/02/2022





LEGEND

INVESTIGATION AREA ————

VEGETATION ASSESSMENT AREA (150m from the external boundary of the subject land) - - - - -

VEGETATION HAZARD

EXTREME HAZARD ■

MODERATE HAZARD ■

LOW HAZARD ■

Location Details: Dalyellup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation Number: BPAD 27682
 Accreditation Expiry Date: February 2023
 Date of Aerial Photo: September 2021

FIGURE 14
 DALYELLUP BUSHFIRE HAZARD LEVELS
 (SHEET 2 OF 2)



Job No 21-053
 Rev Description
 A Preliminary
 B Rev DIAs

Date
 10/01/2017
 14/02/2022



4.0 DEVELOPMENT ISSUES - GENERAL

4.1 Development Hazard Interface

The policy measures of SPP3.7 and the Guidelines for Planning in Bushfire Prone Areas have a presumption against any development in areas which that has or will, on completion:

- An extreme bushfire hazard level, or
- Which requires the use of BAL- 40 or BAL Flame Zone (FZ) construction standards.

The setback requirements for a BAL-29 rating on flat land are shown in Table 3.

Current urban design and other State Planning policies promote landscape and vegetation protection measures to create a desirable residential character. This means that the interface between urban development and bushland areas is becoming less clear. Consequently, it is necessary to adopt more sophisticated approaches to vegetation and landscape management in relation to subdivision design and fire management.

A key subdivision design issue is the relationship of the development to the vegetation areas which are classified as being a bushfire hazard. This applies:

- Primarily to areas of protected remnant vegetation which are generally external to any development but also occur in the internal habitat and landscape protection areas; and
- Secondly to the areas of public landscaping and parks.

It is highlighted that where it is required to provide a revegetated buffer to a wetland or river foreshore, then that buffer will form part of the hazard vegetation. Consequently, any development setbacks that are required for bushfire management, including for BAL ratings, are measured from the outside edge of the buffer.

Figure 18 shows the options to be considered in relation to the development/hazard interface.

Table 2 BAL-29 Setbacks Flat Slope

Vegetation Class	Minimum Setbacks (m) – BAL29				
	Upslopes & Flat Land	Downslope (degrees)			
		>0 - 5	>5 - 10	>10 - 15	>15 - 20
A Forest	21m	27m	33m	42m	52m
B Woodland	14m	17m	22m	28m	35m
C Shrubland	9m	10m	11m	13m	15m
D Scrub	13m	15m	17m	19m	21m
E Mallee/Mulga	8m	9m	10m	11m	13m
F Rainforest	9m	11m	15m	19m	25m
G Grassland	8m	9m	10m	12m	14m



LEGEND

- DIA BOUNDARY
- ASSESSMENT AREA (150m from the external boundary of the subject site)
- BUSHFIRE HAZARD LEVEL
 - EXTREME
 - MODERATE
 - LOW

Location Details: Peppermint Grove Beach
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023

FIGURE 15
 PEPPERMINT GROVE BEACH
 BUSHFIRE HAZARD LEVELS



Job No 21-053
 Rev A Description Preliminary

Date 23/11/2021



The revised Bushfire Protection Criteria now include Acceptable Solution A3.4a relating to perimeter roads and the explanatory notes state (7):

Where a planning proposal includes the creation of 10 or more lots adjacent to each other, which adjoin classified vegetation under AS 3959 with the exception of Class G Grassland, as part of a greenfield development or large urban infill site, hazard separation and defensible space should be provided in the form of a perimeter road.

When designing a strategic planning proposal and/or subdivision, creating a large setback between classified vegetation and proposed lots with a perimeter road, and orientating habitable buildings to front onto (rather than back onto) areas of vegetation has many benefits, including:

- passive surveillance;
- defensible space for firefighting and emergency management purposes;
- reducing the potential radiant heat that may impact a habitable building in a bushfire event;
- reducing the need for battle-axe lots; and
- unconstrained public access/egress for the community in the event of a bushfire.

4.2 Hazard Reduction

In order to achieve the desired BAL rating permanent hazard reduction must be undertaken. In its simplest this will be achieved by the clearing of land for the subdivision or development. However, the need for permanent hazard reduction may conflict with environmental objectives and regulations.

The objective in SPP3.7 Planning in Bushfire Prone Areas is for development to have a maximum BAL-29 rating and this can promote the need for vegetation clearing.

Schedule 6 of the Environmental Protection Act 1986 provides for exemptions to requiring a permit to clear vegetation. The Environmental Protection (Clearing of Native Vegetation) Regulations 2004 then further prescribe/define twenty-six activities for which clearing can occur including:

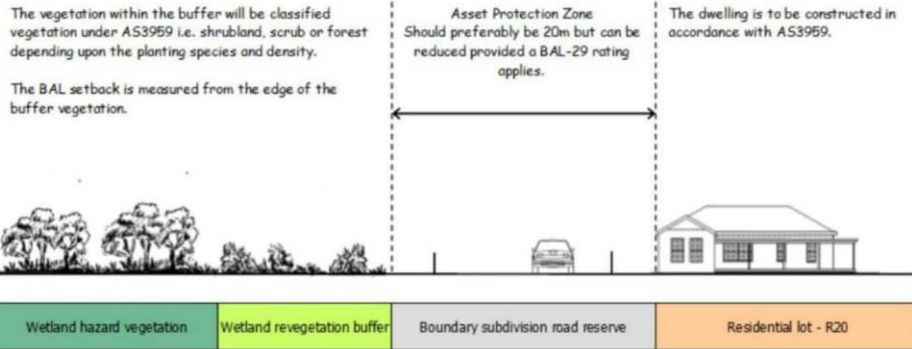
- 1 The minimum clearing necessary to construct a building or other structure up to five (5) hectares; and
- 2 Clearing of up to 20m around buildings for fire protection.

In relation to (1) above the EPA's Clearing Guidelines stipulate that the permitted clearing is only to the "extent necessary" to construct the development. Under SPP3.7 Planning in Bushfire Prone Areas it is clear that the maximum recommended BAL rating is BAL-29. This then represents the minimum level of clearing necessary for a development especially a dwelling or an outbuilding.

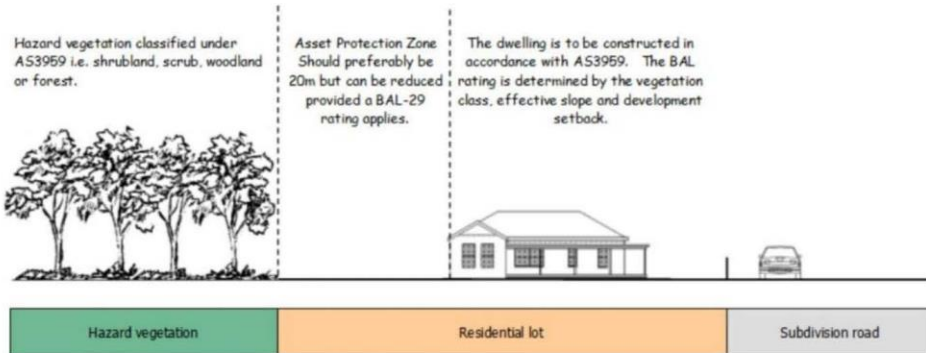
The actual extent of the clearing which required will depend upon the vegetation classification and the slope. Where there is forest or woodland vegetation then this can be a significant distance as shown in Table 4. Complications can arise when these distances extend over proposed lot boundaries.

7 WAPC (2021) Guidelines for Planning in Bushfire Prone Areas Appendix 4 Bushfire Protection Criteria page 82

BAL setbacks from wetlands includes any required buffer areas



It is not preferred for development to physically abut reserves with hazard vegetation even where the required BAL-29 setback distance can be provided.



The preferred treatment option for the hazard interface is to have a physical boundary such as a subdivision road.

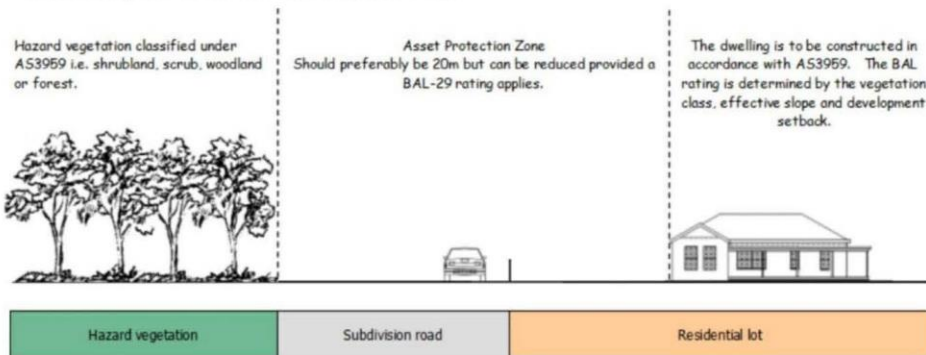


FIGURE 16
DEVELOPMENT INTERFACE



Job No 21-053
Rev Description
A Preliminary

Date
23/11/2021



Table 3 BAL 29 Clearing Areas (Forest)

Slope Degrees	House Area (m ²)	Setback Distance (m)		Cleared Area (m ²)
		Upslope	Downslope	
Flat/Upslope	200	21	21	2,844
>0 - 5	200	21	27	3,216
>5 - 10	200	21	33	3,588
>10 - 15	200	21	42	4,146
>15 - 20	200	21	52	4,766

It is expected that high risk land uses, especially those relating to industry will be located in the industrial estate on the south western side of the Capel townsite. Within the study area the most likely high risk land use will potentially be a service station.

Consequently, the incidence of bush fires may increase. While this may not require any additional design measures in a subdivision it may place additional emphasis on the "preparedness" and "response" measures within the community.

4.3 Access

One of the most significant design issues to be considered in the subdivision and development of land is the need for multiple access.

Element 3 of the Bushfire Protection Criteria has an objective to ensure that the vehicular access serving a subdivision/development is safe in the event of a bush fire occurring. The performance criteria seek to ensure that the subdivision design allows emergency and other vehicles to move through the development easily and safely at all times.

The acceptable solution is to provide two different vehicular access routes, both of which connect to the public road network, and which are available to all residents/the public at all times. By providing two access options, residents can evacuate and fire services can enter even when one access route is blocked by fire. These access routes should be in different directions.

4.4 Vulnerable Land Uses

SPP3.7 Planning in Bushfire Prone Areas defines a vulnerable land use as one where persons may be less able to respond in a bushfire emergency. The Guidelines then explain that such uses can include:

- Dedicated facilities such as aged or assisted care, nursing homes, education centres, family day care centres, child care centres, hospitals and rehabilitation centres.
- Facilities where users may not be aware of their surroundings and who may require assistance or direction in the event of a bushfire, such as short stay accommodation, bed and breakfast, caravan park and camping ground, holiday house, holiday accommodation, home business, serviced (short stay) apartment, and tourist developments.

Under SPP3.7 vulnerable land uses will not be supported in areas with a BAL rating of between BAL-12.5 to BAL-29 unless they are accompanied by a Bushfire Management Plan jointly endorsed by the relevant local government and the State authority for emergency services.

There are a number of existing vulnerable landuses within both townsites including schools and retirement villages.

The precincts examined in this assessment are predominantly proposed for residential and/or rural residential development. The most likely vulnerable land use to occur in this context [potentially include schools, community centres, retirement villages and tourist accommodation including chalets, holiday homes, bed & breakfast establishments etc.

4.5 High Risk Land Uses

High risk land uses are those uses which may lead to the potential ignition, prolonged duration and/or increased intensity of a bushfire. Examples include service stations, landfill sites, bulk storage of hazardous materials, fuel depots.

5.0 DEVELOPMENT ISSUES - INVESTIGATION AREAS

5.1 B1 East Boyanup

Strategy Designation	Future Residential
	Area 387ha Lot yield 400 - 1,000
Structure Plan	Boyanup East (TME, 2017). Precincts 7 & 8 are currently being reviewed.
Bushfire Prone Land	Partially
Existing Conditions	<p>The existing conditions are shown in Figure 17.</p> <p>Precinct is bounded by Hurst, Grey, Trainer Roads and Armstrong Street. Parts of the western portion have been developed or have smaller 1 hectare lots. The area south of Armstrong Street is a single lot of 31 hectares being cleared farming land. The main development area is to the north and north east part of the precinct with existing lots between 4 and 14 hectares.</p> <p>Significant bushland is located west of Smedley Place and on the eastern boundary adjacent to Trainer Road. State Forest 27 is east of Trainer Road. Reserve 24100 'sanitary site' is in the north eastern corner and is a contaminated site. Water Corporation high level storage tanks are located on Armstrong Street.</p> <p>There are multiple ecological linkages through the site. Joshua Creek is to the south, with an associated conservation reserve R59857. Joshua Lake Park is adjacent to the site next to the Child Side Playgroup and School.</p>
BHL Issues	<p>Development will be for residential lots R10 to R30, in the western portion with 1 hectare rural residential lots in the eastern portion.</p> <p>Retention of bushland areas with appropriate treatment of the interface, potentially including perimeter roads. Consideration of the suitability of large retaining bushland within them.</p> <p>Revegetation of the central drainage line may require development setbacks.</p> <p>District access focusses on Hurst Road which has a single northern intersection with Boyanup Picton Road. It also extends south eventually connecting to Donnybrook. Principal district hazard is the State Forest to the east and bushland areas to the south east.</p>
Bushfire Hazard Level	Existing/Undeveloped Moderate with several large areas with an Extreme rating.
	When Developed Generally Low to Moderate, but bushland lots will be Extreme.
Summary and Recommendations	<p>Subdivision and development are to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.</p> <p>That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access and the interface between development and bushland areas.</p> <p>Consider removing areas of extreme hazard (adjacent to state forest in the east and Armstrong Road to the south) where development may be likely to be exposed to an extreme bushfire hazard.</p>



LEGEND

- DIA BOUNDARY —
- ASSESSMENT AREA (150m from the external boundary of the subject site) - - -
- PHOTO LOCATION B →
- PRECINCT AREA [ha]

Location Details: Boyanup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021



FIGURE 17
 B1 EAST BOYANUP EXISTING CONDITIONS



Job No 21-053

Rev	Description	Date
A	Preliminary	10/01/2017
B	Rev DIAs	14/02/2022





B1 - Photo A Class G Grassland



B1 - Photo B Class A Forest



B1 - Photo C Class G Grassland



B1 - Photo D Class G Grassland



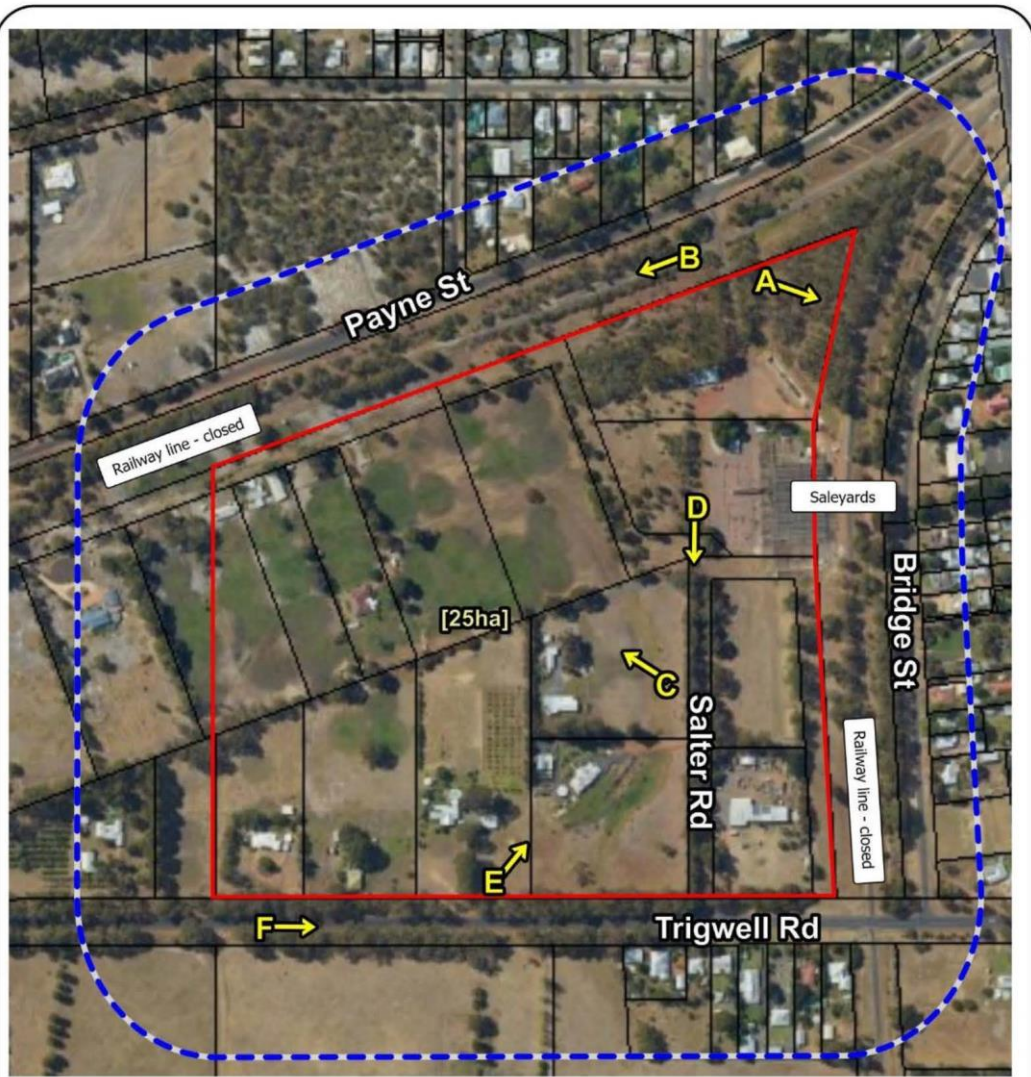
B1 - Photo E Class A Forest



B1 - Photo F Class G Grassland

5.2 B2 Salter Road

Strategy Designation	Future Residential
	Area 25ha Lot yield 10 - 70
Structure Plan	None
Bushfire Prone Land	Yes, except for central area.
Existing Conditions	<p>The existing conditions are shown in Figure 18.</p> <p>The precinct is situated on the southern side of the railway reserve extending south to Trigwell Road. The eastern boundary borders the Manjimup railway line while the western boundary is the proposed By-pass road.</p> <p>The main vegetation areas are along the railway corridors, north and east, and Trigwell Road.</p> <p>The predominant feature are the saleyards (R27193 & R27194) which are accessed from Salter Road. A secondary access extends across the railway reserve to Payne Street but this is not a gazetted road reserve over the railway corridor.</p> <p>A number of lots front Junction Road adjacent to the railway corridor. This is not constructed and there are several informal crossings over the railway corridor.</p>
BHL Issues	The proposed By-pass and existing railway line corridors may restrict access into the precinct.
Bushfire Hazard Level	<p>Existing/Undeveloped Predominantly moderate with some extreme on boundaries</p> <p>When Developed Predominantly low or moderate.</p>
Summary and Recommendations	<p>The precinct generally has a moderate hazard rating with some areas with an extreme hazard rating. Subdivision and development are to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.</p> <p>That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access. In particular, the formalisation of public road access across the railway corridor to Payne Street, by the saleyards.</p>



LEGEND

- DIA BOUNDARY —
- ASSESSMENT AREA (150m from the external boundary of the subject site) - - -
- PHOTO LOCATION B →
- PRECINCT AREA [ha]

Location Details: Boyanup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 20223
 Date of Aerial Photo: September 2021



FIGURE 18
 B2 SALTER ROAD
 EXISTING CONDITIONS



Job No 21-053
 Rev A Description Preliminary Date 23/11/2021



B2 - Photo A Class A Forest



B2 - Photo B Class B Forest



B2 - Photo C Class G Grassland



B2 - Photo D Class A Forest



B2 - Photo E Class G Grassland

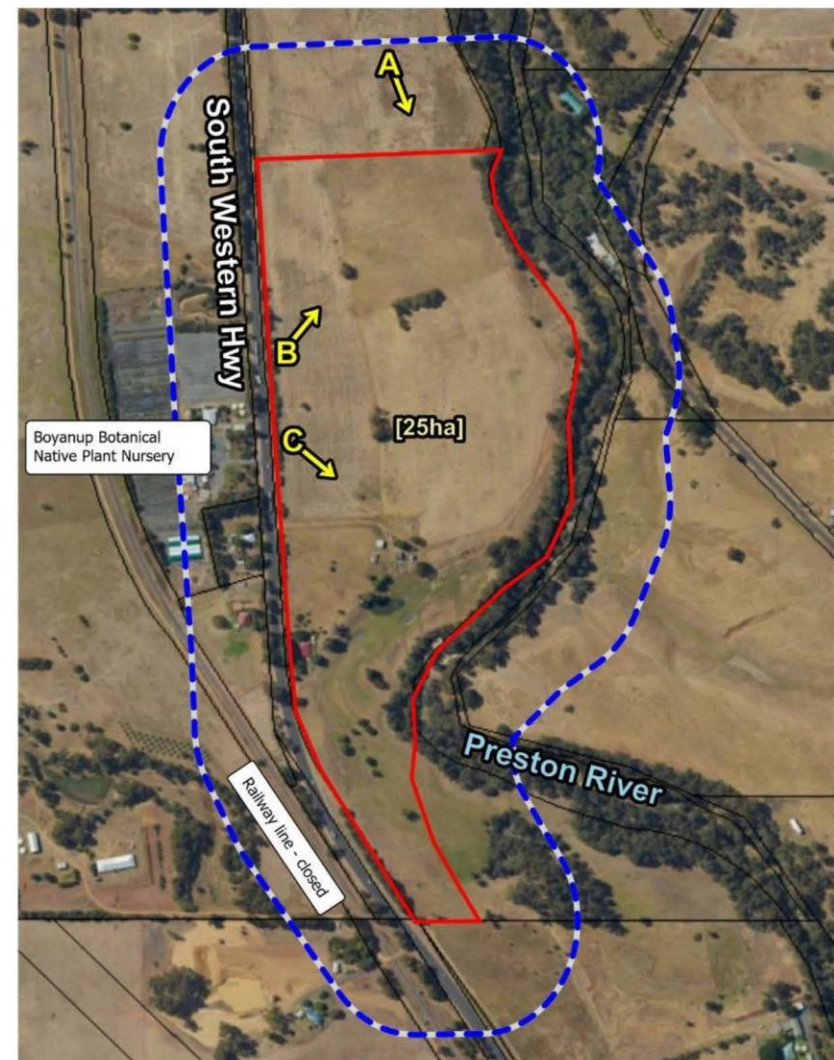


B2 - Photo F Class A Forest



5.3 B3 South Western Highway

Strategy Designation	Future Residential
	Area 25ha Lot yield 50 - 110
Special Control Areas	Adjacent to Preston River ecological linkage. Highway transport corridor.
Structure Plan	
Bushfire Prone Land	Partially being the 100m buffer from the river corridor.
Existing Conditions	The existing conditions are shown in Figure 19. The precinct is situated on the easter side of the South Western Highway extending to the Preston River. The land immediately to the north is designated as future recreation and this is adjacent to the existing sports ground. It has an average width of approximately 300m. The site is cleared grazing land with remnant vegetation along the river corridor. Adjacent to Preston River ecological linkage and Highway transport corridor.
BHL Issues	Access is only available from the South Western Highway. The vegetation hazard along the river corridor should not prevent further development given the application of A3.2a where single access leading away from the hazard through a residential built-out area with a BAL - Low rating is acceptable.
Bushfire Hazard Level	Existing/Undeveloped Moderate When Developed Lot to moderate.
Summary and Recommendations	The precinct generally has a moderate hazard rating. This is expected to become a low hazard rating when developed. Where single access through a built out area is being provided then the proponent should clearly identify that all options have been considered and why the proposed solution is preferred. Subdivision and development are to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.



LEGEND

- DIA BOUNDARY —
- ASSESSMENT AREA (150m from the external boundary of the subject site) - - -
- PHOTO LOCATION B →
- PRECINCT AREA [ha]

Location Details: Boyanup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021

SCALE 0m 150m

FIGURE 19
B3 SOUTH WESTERN HIGHWAY
EXISTING CONDITIONS



Job No 21-053
 Rev A Description Preliminary Date 23/11/2021



B3 - Photo A Class G Grassland



B3 - Photo B Class G Grassland

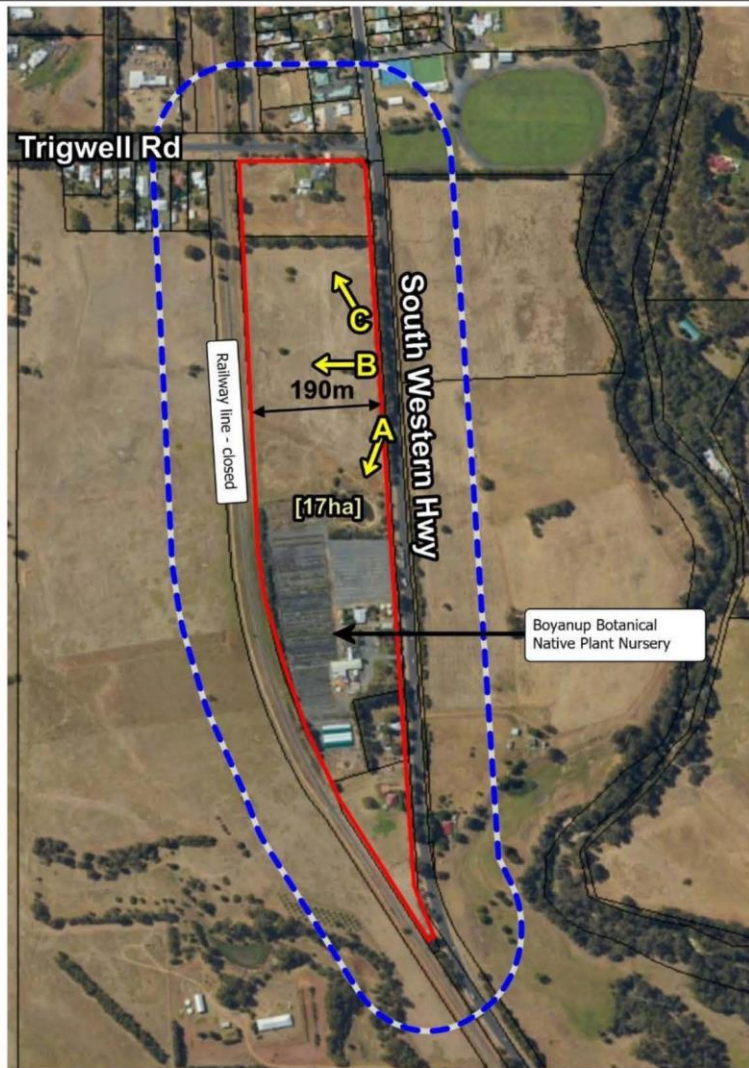


B3 - Photo C Class G Grassland



5.4 B4 Boyanup Enterprise Park

Strategy Designation	Industry		
	Area	17ha	Lot yield
			60
Structure Plan	None		
Bushfire Prone Land	No		
Existing Conditions	<p>The existing conditions are shown in Figure 20.</p> <p>The precinct is situated between the railway line and the South Western Highway. It extends south from Trigwell Road for approximately 1km.</p> <p>The principal land use is the Boyanup Botanical native plant nursery.</p>		
BHL Issues	<p>Access is only available from the South Western Highway, with a minor connection to Trigwell Road. As the precinct is generally 200m wide, single access points from the Highway, or a service road are acceptable.</p>		
Bushfire Hazard Level	Existing/Undeveloped	Moderate	
	When Developed	Moderate due to grassland on boundaries as the precinct is narrow.	
Summary and Recommendations	<p>The precinct is not bushfire prone and will have a moderate to low hazard rating when developed.</p>		



LEGEND

- DIA BOUNDARY —
- ASSESSMENT AREA (150m from the external boundary of the subject site) - - -
- PHOTO LOCATION B →
- PRECINCT AREA [ha]

Location Details: Boyanup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021

SCALE 0m 150m

FIGURE 20
 B4 BOYANUP BUSINESS PARK
 EXISTING CONDITIONS



Job No 21-053
 Rev A Description Preliminary Date 23/11/2021



B4 - Photo A Class G Grassland



B4 - Photo B Class G Grassland



B4 - Photo C Class G Grassland



5.5 C1 Maitland Road

Strategy Designation	Future Residential R5 (2,000sqm) to R20 (450sqm)		
	Area	27ha	Lot yield 70 - 140
Structure Plan	No current structure plan		
Bushfire Prone Land	Partially, being along Maitland Road and the river corridor.		
Existing Conditions	<p>The existing conditions are shown in Figure 21.</p> <p>Adjacent to Capel River ecological linkage and Highway transport corridor.</p> <p>Bounded by Bussell Highway, Capel Drive to the north and east and Capel River to the south.</p> <p>Generally cleared and relatively flat. Existing vegetation along the road verges, boundary windbreaks, Bussell Highway and the river foreshore. Contains a number of large lots between 2 and 4 hectares which may have subdivision potential.</p>		
BHL Issues	<p>There is only a single access via Maitland Road to Capel Drive on the eastern side of the precinct. Access to the south is restricted by the river corridor. Additional direct road access to Bussell Highway is unlikely. It may be possible to have an emergency access way connection, but given the topography and vegetation on the verge of the Highway this is likely to be difficult.</p> <p>The single road access from the east would normally be a moderate or high constraint to development. The vegetation hazard along the Highway and river may not prevent further development given the application of A3.2a where single access leading away from the hazard through a residential built-out area with a BAL - Low rating is acceptable.</p> <p>Maitland Road has a 6m pavement and may require upgrading noting that there is a significant stand of trees in the western portion.</p>		
Bushfire Hazard Level	Existing/Undeveloped	Predominantly moderate	
	When Developed	Predominantly Low with some Moderate on boundaries.	
Summary and Recommendations	<p>Subdivision and development are to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria. Where single access through a built out area is being provided then the proponent should clearly identify that all options have been considered and why the proposed solution is preferred.</p> <p>That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access.</p>		

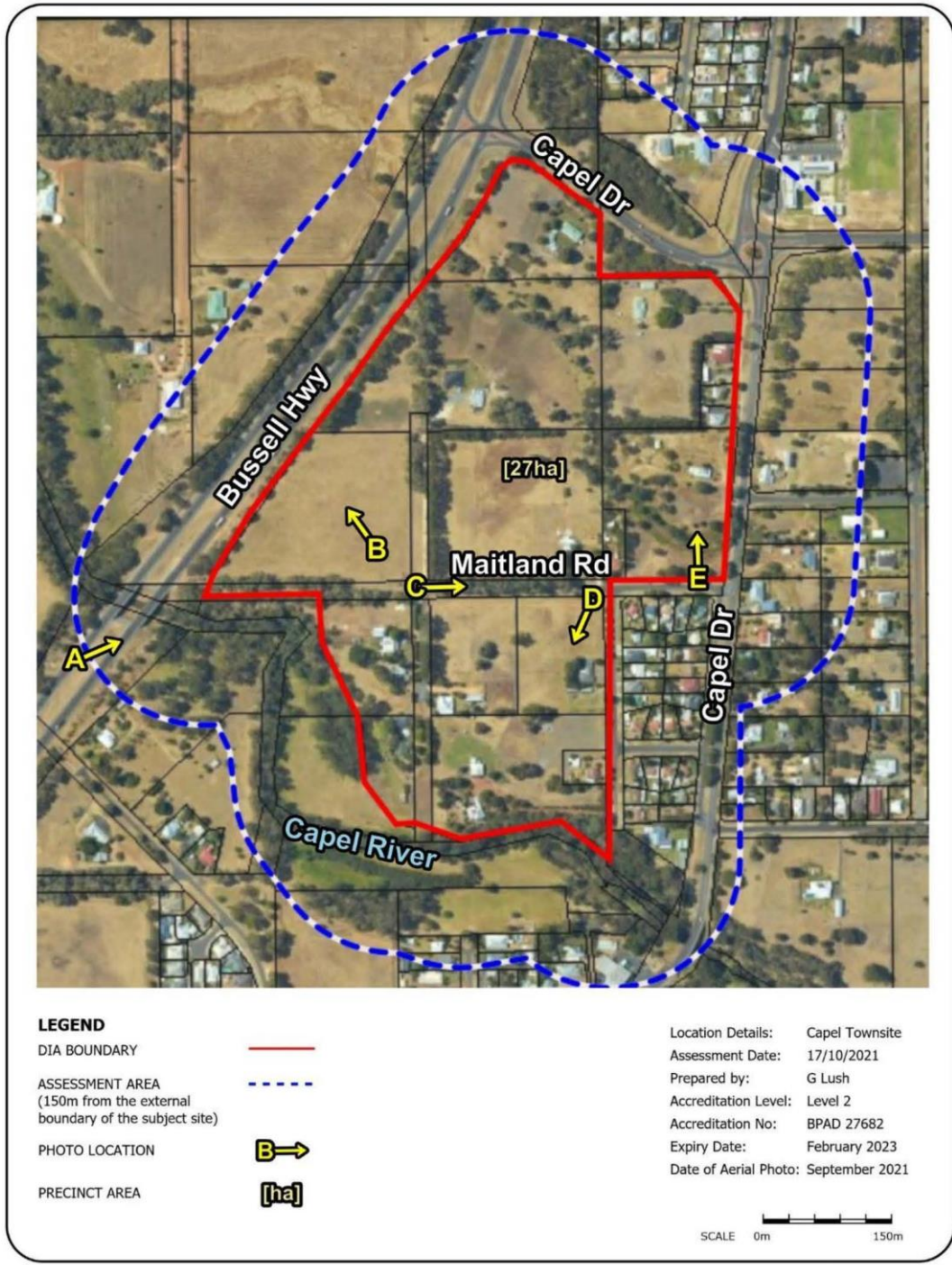


FIGURE 21
C1 MAITLAND RD
EXISTING CONDITIONS



Job No 21-053
Rev Description Date
A Preliminary 23/11/2021





C1 - Photo A Class A Forest



C1 - Photo B Class G Grassland



C1 - Photo C Class A Forest



C1 - Photo D Class G Grassland

C1 - Photo E Class G Grassland



5.6 C2 Weld Road/East Road

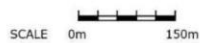
Strategy Designation	Future Residential			
	Area	53ha	Lot yield	50 - 80
Structure Plan	No current structure plan			
Bushfire Prone Land	Majority of the precinct.			
Existing Conditions	<p>The existing conditions are shown in Figure 22.</p> <p>It is bounded by Weld Road on the northern boundary, East Road on the western boundary and Jamieson Road on the southern boundary. It is noted that East Road does not connect into Jamieson Road due to a local drainage line.</p> <p>Residential subdivision with 2,000sqm lots has occurred in the northern portion along Kruse Lane.</p> <p>The balance is broad acre farming land, with some areas of bushland. There are several semi wetland areas with dense fringing vegetation.</p>			
BHL Issues	<p>The retention of bushland vegetation will be related to the size of any proposed lots, especially where greater than 4,000sqm.</p> <p>Vegetation retained in large cells may require a permit road to separate it from development.</p>			
Bushfire Hazard Level	Existing/Undeveloped	Moderate with several extreme areas.		
	When Developed	Moderate.		
Summary and Recommendations	<p>The precinct has a moderate to extreme hazard rating. Subdivision and development are to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.</p> <p>That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access.</p> <p>A direct road connection between Jamieson and Weld Roads is required.</p>			

Capel LPS - Strategic Bushfire Hazard Level Assessment



LEGEND

- DIA BOUNDARY —
- ASSESSMENT AREA (150m from the external boundary of the subject site) - - -
- PHOTO LOCATION B →
- PRECINCT AREA [ha]



Location Details: Capel Townsite
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021

FIGURE 22
 C2 WELD/EAST RD
 EXISTING CONDITIONS



Job No 21-053
 Rev Description Date
 A Preliminary 23/11/2021



C2 - Photo A Class A Forest and Class G Grassland



C2 - Photo B Class A Forest and Class G Grassland



C2- Photo C Glass B Woodland



C2 - Photo D Class G Grassland

C2 Photo E Class G Grassland



5.7 C3 Capel Drive

Strategy Designation	Future Residential
Area	18ha Lot yield 20 - 70
Special Control Areas	Adjacent to Capel River ecological linkage and Highway transport corridor.
Structure Plan	No current structure plan
Bushfire Prone Land	Majority of the southern portion south of Capel Drive.
Existing Conditions	<p>The existing conditions are shown in Figure 23.</p> <p>Adjacent to Capel River ecological linkage and Highway transport corridor.</p> <p>It is bounded by Bussell Highway on the western side and Spurr Street to the south. Capel Drive bisects the precinct and the northern portion is bounded by the river corridor.</p> <p>Contains large undeveloped land on either side of Capel Drive.</p> <p>Dense vegetation along Reid Avenue, Hannaby Gr and parts of Bussell Highway.</p>
BHL Issues	<p>Future planning and access will be determined by the final design of the Bussell Highway interchange and potential closure of Spurr Street.</p> <p>Access to the northern portion is restricted via West Road.</p> <p>Direct access to Bussell Highway for either a subdivision road or emergency accessway is unlikely.</p> <p>The vegetation hazard along the Highway and river may not prevent further development given the application of A3.2a where single access leading away from the hazard through a residential built-out area with a BAL - Low rating is acceptable.</p>
Bushfire Hazard Level	<p>Existing/Undeveloped Moderate</p> <p>When Developed Moderate to low.</p>
Summary and Recommendations	<p>The precinct has a moderate to extreme hazard rating. Subdivision and development are to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.</p> <p>Where single access through a built out area is being provided then the proponent should clearly identify that all options have been considered and why the proposed solution is preferred.</p>

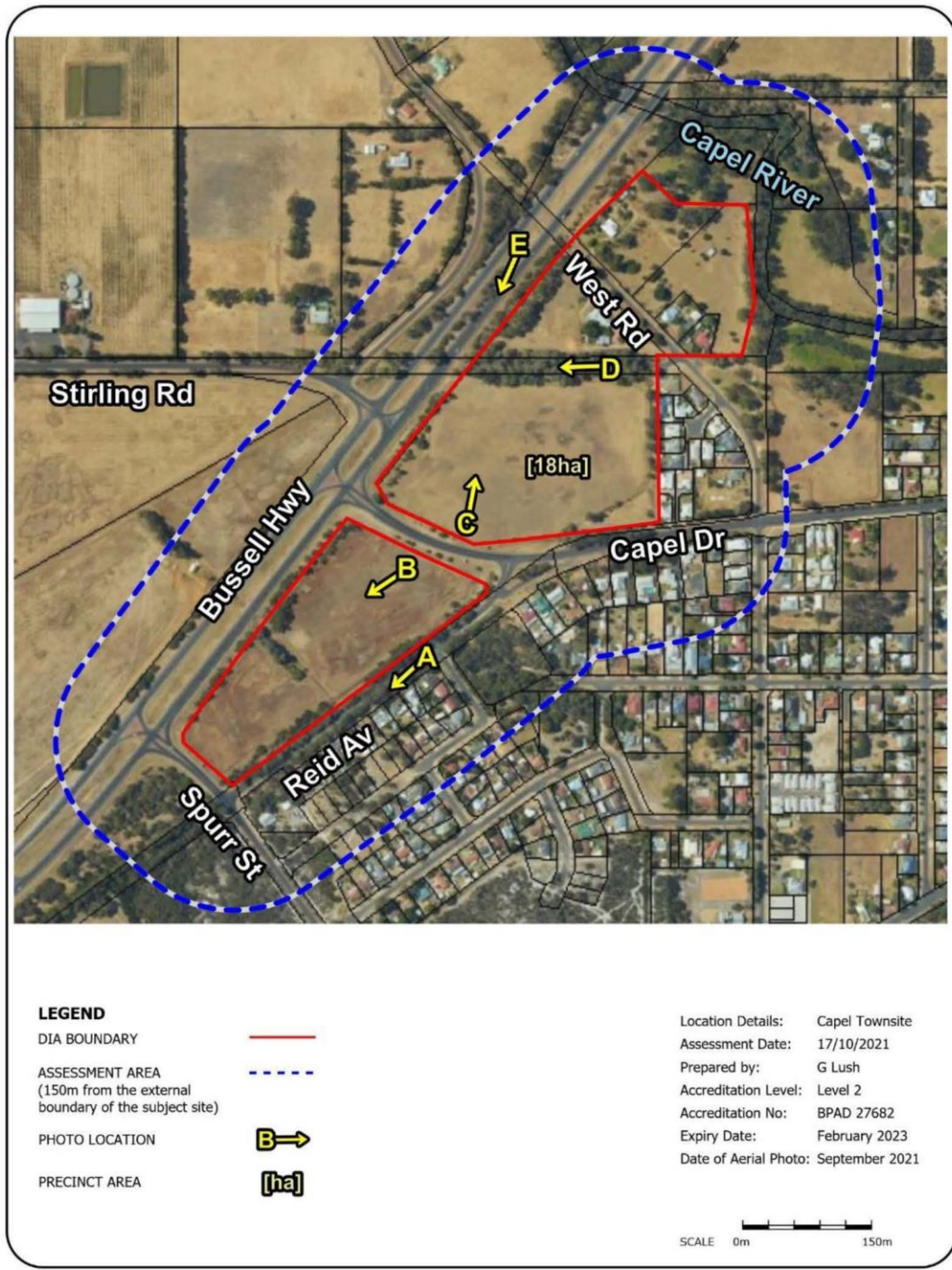


FIGURE 23
C3 CAPEL DRIVE
EXISTING CONDITIONS



Job No 21-053
 Rev A Description Preliminary Date 23/11/2021





C3 - Photo A Class A Forest



C3 - Photo B Class G Grassland



C3 - Photo C Class G Grassland



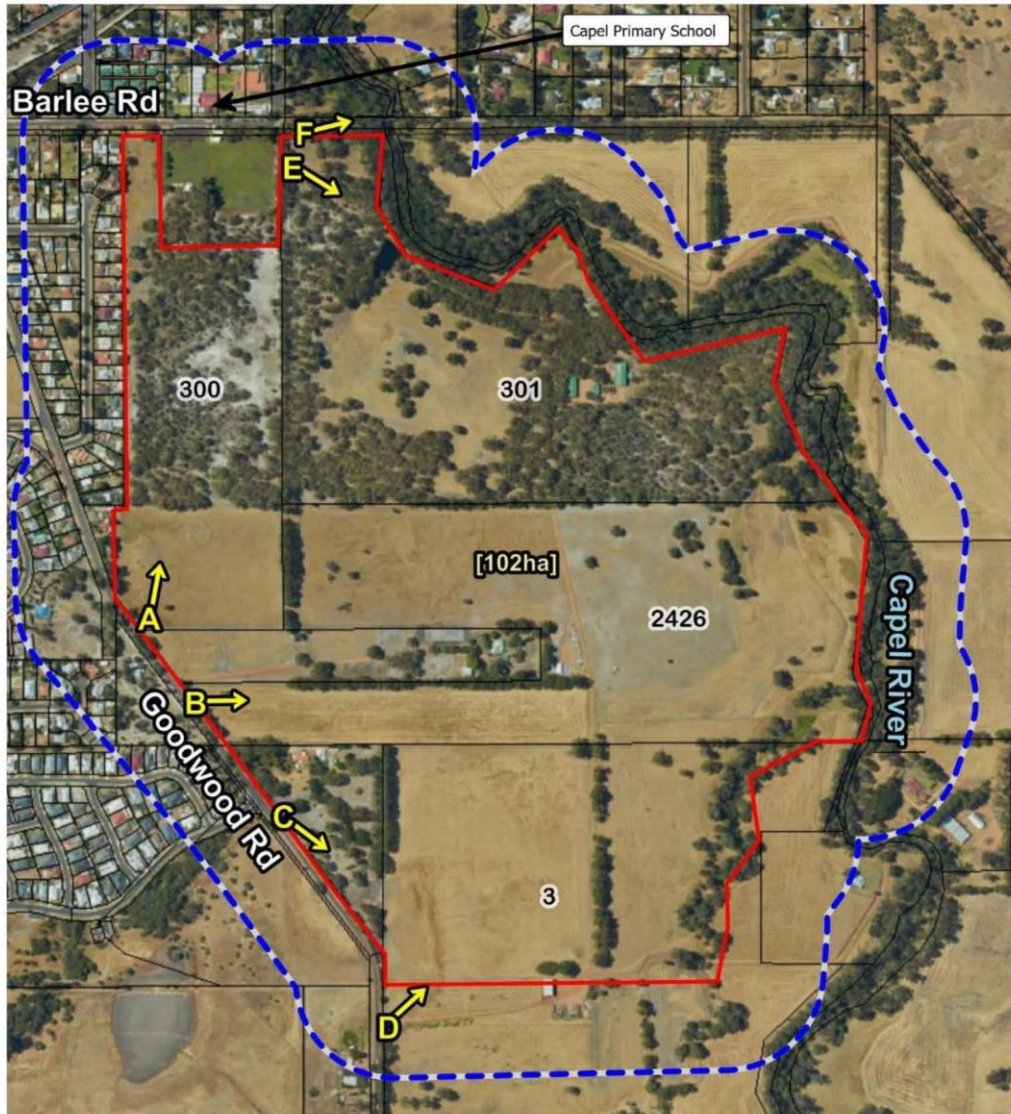
C3 - Photo D Class A Forest

C3 Photo E Class A Forest



5.8 C4 South East Capel

Strategy Designation	Future Residential	
	Area 102ha	Lot yield 30 - 550
Structure Plan	South East Capel (TME, 2014b)	
Bushfire Prone Land	Yes	
Existing Conditions	<p>The existing conditions are shown in Figure 24. Adjacent to Capel River ecological linkage.</p> <p>Large rural area extending from Barlee Road in the north south with Goodwood Road on the western boundary and the Capel River on the eastern boundary.</p> <p>There is a substantial areas of remnant vegetation in the northern portion, while the southern portion is cleared grazing land. The remnant vegetation also extends along the Capel Rover corridor.</p>	
BHL Issues	<p>The northern vegetated area only has frontage to Barless Road as there is an existing residential subdivision on the western boundary separating it from Goodwood Road.</p> <p>Endorsed structure plan shows R20 lots and a retirement village in the northern portion. This will require extensive vegetation clearing which may not be environmentally acceptable. The use of large lots to retain vegetation in this area may not be suitable as it would create singular house sites surrounded by hazard vegetation.</p> <p>Retention of the bushland in the northern portion also poses a potential risk to existing townsite development including the adjacent Capel primary school.</p> <p>Multiple access in different directions to a 'suitable destination' will be difficult to achieve because of the river corridor. Access to the north may potentially be through bushland with an extreme hazard rating.</p>	
Bushfire Hazard Level	Existing/Undeveloped	Northern portion is extreme. Southern portion is moderate.
	When Developed	Moderate to low subject to vegetation clearing.
Summary and Recommendations	<p>The north portion of the precinct has an extreme hazard rating and significant constraints to development. The existing structure plan should be reviewed due to the extensive vegetation clearing which is proposed.</p> <p>The southern portion of the precinct has a moderate hazard rating. Subdivision and development are to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.</p>	



LEGEND

- DIA BOUNDARY —
- ASSESSMENT AREA (150m from the external boundary of the subject site) - - -
- PHOTO LOCATION ➔
- PRECINCT AREA [ha]

Location Details: Capel Townsite
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021



FIGURE 24
 C4 SOUTH EAST CAPEL
 EXISTING CONDITIONS



Job No 21-053
 Rev A Description Preliminary Date 23/11/2021



C4 - Photo A Class G Grassland



C4- Photo B Class G Grassland



C4 - Photo C Class B Woodland



C4- Photo D Class G Grassland



C4 - Photo E Class A Forest



C4- Photo F Class A Forest



5.9 C5 Jenkin Road (Iluka)

Strategy Designation	Future Residential		
	Area	47ha	Lot yield
			150
Structure Plan	None		
Bushfire Prone Land	Yes		
Existing Conditions	<p>The existing conditions are shown in Figure 25.</p> <p>Decommissioned Iluka processing plant bounded by Gavins Road to the north, freehold land to the west, Jenkins Road to the south and the railway line to the east.</p> <p>Withers Road reserve extends to the southern boundary.</p> <p>Areas of remnant and planted vegetation along Gavins Road and in the east, south east portion of the site as well as along the railway line. the land on the northern side of Gavins Road also has a large area of vegetation being approximately 10 hectares.</p> <p>Contains five lots, four of these being 2 hectares and one being 5 hectares. The existing development extends into the railway reserve.</p>		
BHL Issues	<p>Any development or subdivision should promote the connection of Jenkins and Withers Roads on the southern boundary. It is also highly desirable for there to be a 'hard edge' separating the vegetation along the railway line and it is preferable for this to be an access road connecting Withers and Gavins Roads</p>		
Bushfire Hazard Level	Existing/Undeveloped	Predominantly moderate with one area of extreme	
	When Developed	Moderate to low.	
Summary and Recommendations	<p>The precinct has a moderate hazard rating. Subdivision and development are to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.</p> <p>That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access.</p>		



LEGEND

- DIA BOUNDARY —
- ASSESSMENT AREA (150m from the external boundary of the subject site) - - -
- PHOTO LOCATION B →
- PRECINCT AREA [ha]

Location Details: Capel Townsite
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021



FIGURE 25
 C5 JENKIN RD (ILUKA)
 EXISTING CONDITIONS



Job No 21-053
 Rev Description Date
 A Preliminary 23/11/2021



C5 Photo A Class A Forest



C5 Photo B Class G Grassland



C5 Photo C Class A Forest



5.10 C6 LIA Expansion

Strategy Designation	Industry				
	Area 26ha Lot yield 30				
Structure Plan	None				
Bushfire Prone Land	Minor portion in the north adjacent to existing development.				
Existing Conditions	<p>The existing conditions are shown in Figure 26.</p> <p>Adjacent to highway transport corridor.</p> <p>The precinct is designated for an expansion of the adjoining industrial estate. It has an area of approximately 16 hectares comprising of a single lot. It is bounded by Bussell Highway on the western side; Spurr Street to the north and the railway corridor to the east. The Shire's waste transfer station is to the south east on the other side of the railway line and the Water Corporation's waste water treatment plant is to the south.</p> <p>At present, there is only a single access via Ilmenite Crescent through the existing industrial estate.</p> <p>That portion of the existing lot on the corner of Spurr Street and Bussell Highway contains approximately 4 hectares of bushland designated as POS in the Strategy. Lot 11 on the other side of Spurr Street is undeveloped residential land with 11 hectares of remnant vegetation.</p>				
BHL Issues	<p>While the precinct has a moderate hazard rating, the lack of a second access is a significant constraint to development. Additional access on to Bussell Highway is unlikely although it may be possible to have an emergency access way. Access across the railway corridor may be difficult to achieve, but this could connect in to Range Road on the south eastern side.</p> <p>Once Lot 11 is developed the risk will be significantly reduced and the access will be leading away from the hazard through a residential built-out area with a BAL - Low rating is acceptable.</p> <p>Alternatively, it would have to be accepted that the most likely direction of a major fire would be from the south east to south west of the site.</p>				
Bushfire Hazard Level	<table border="0"> <tr> <td>Existing/Undeveloped</td> <td>Moderate</td> </tr> <tr> <td>When Developed</td> <td>Moderate to low.</td> </tr> </table>	Existing/Undeveloped	Moderate	When Developed	Moderate to low.
Existing/Undeveloped	Moderate				
When Developed	Moderate to low.				
Summary and Recommendations	<p>That the Strategy note the moderate to high access constraint to development. That any proposed structure plan consider:</p> <ul style="list-style-type: none"> The provision of secondary access to Bussell Highway and/or Range Road. Any proposed Emergency Access Way must demonstrate why a public road cannot be provided; and A significant asset protection zone between the development and the bushland (POS) area on the corner of Spurr Street and Bussell Highway. <p>The design objective for any subdivision would be for the proposed buildings to be located so has to have a BAL-12.5 rating.</p>				



LEGEND

- DIA BOUNDARY - - - - -
- ASSESSMENT AREA (150m from the external boundary of the subject site) —
- PHOTO LOCATION ➔
- PRECINCT AREA [ha]

Location Details: Capel Townsite
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021



FIGURE 26
C6 LIA EXPANSION AREA
EXISTING CONDITIONS



Job No 21-053
 Rev A Description Preliminary Date 23/11/2021



C6 - Photo A Class D Scrub



C6 - Photo B Class D Scrub



C6 - Photo C Class G Grassland



C6 - Photo D Class G Grassland



5.11 D1 Greenpatch

Strategy Designation	Future Residential			
	Area	22ha	Lot yield	231
Structure Plan	<ul style="list-style-type: none"> Dalyellup Beach Estate (TME, 2015) Draft Greenpatch Local Structure Plan. 			
Bushfire Prone Land	Yes			
Existing Conditions	<p>The existing conditions are shown in Figure 27.</p> <p>Ecological linkage within precinct and adjacent Regional Open Space (Kalgulup Regional Park).</p> <p>Located north of Hutt Drive and Maidment Parade, bordering Millennium Chemical site, and Bunbury Waste Water Treat Plant.</p> <p>Western portion is steeply sloping vegetated land including Tuart woodlands and coastal shrubland. Proposed developed includes community purpose site and 5 hectares of public open space.</p> <p>Existing residential development south of Hutt Drive and east of Maidment Parade.</p>			
BHL Issues	<p>Single access from Minnipup Road to Maidment Parade. Structure plan and previous BMP highlighted second access connection to Hutt Drive as being critical.</p> <p>The principal fire hazard is the regional bushland to the north. Appropriate interface treatment and setbacks are important. The northern perimeter road can meet BAL-29 setbacks, but the development density will be greater than for the existing subdivision along Maidment Parade.</p> <p>The site has been recognised in the original Dalyellup Beach Estate structure plan since 1999. There are potential "legacy" issues as there are limited options for redesigning the subdivision, but these could improve the hazard separation.</p>			
Bushfire Hazard Level	Existing/Undeveloped	Extreme with moderate shrubland.		
	When Developed	Moderate subject to vegetation clearing.		
Summary and Recommendations	<p>The precinct has a moderate / extreme hazard rating. Subdivision design raises potential issues with Element 1 Location.</p> <p>That the Strategy note that there is a high constraint to development and that lack of a second access would be a fatal flaw.</p>			

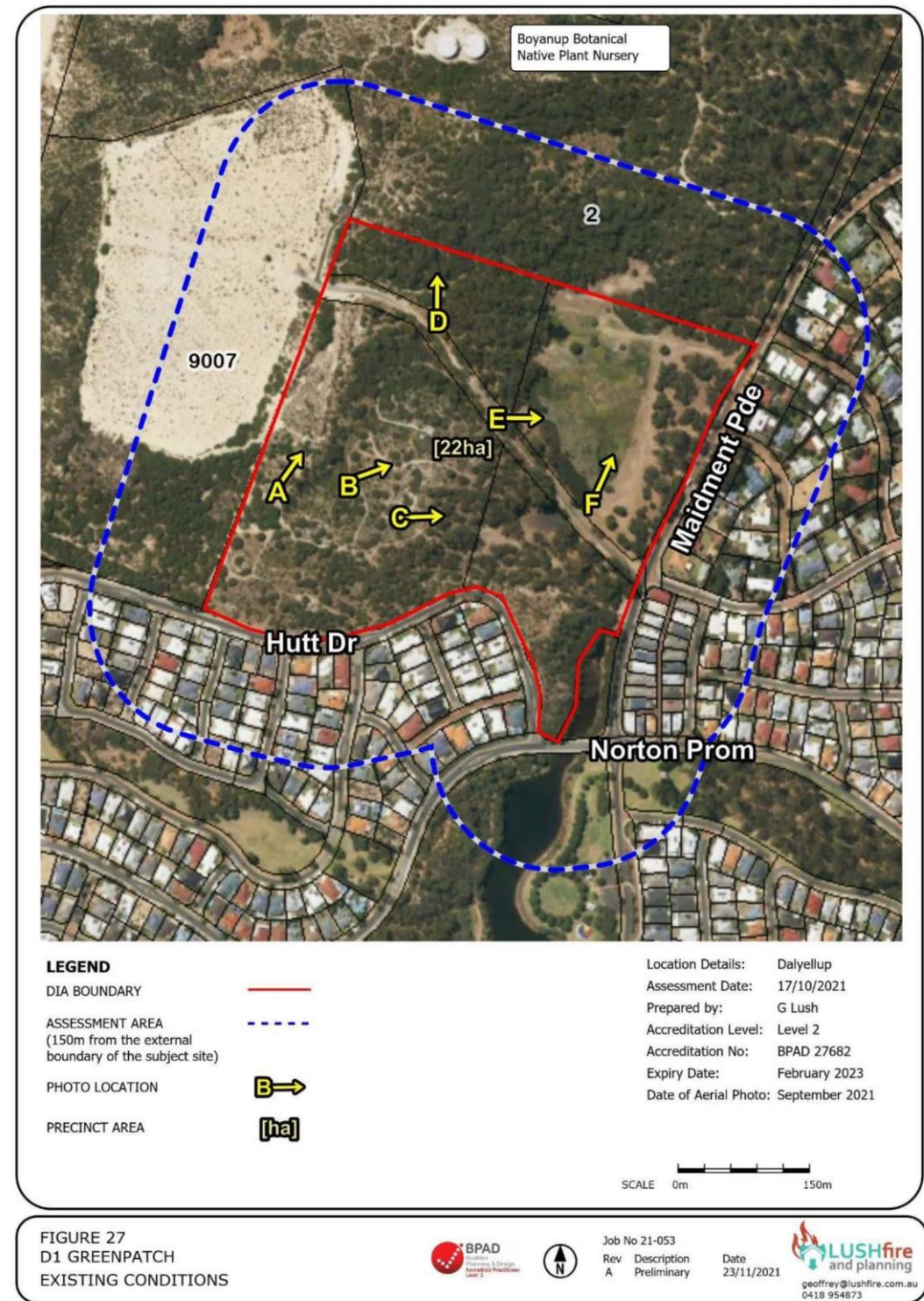


FIGURE 27
D1 GREENPATCH
EXISTING CONDITIONS



Job No 21-053

Rev A Description Preliminary

Date 23/11/2021





D1 - Photo A Class C Shrubland



D1- Photo B Class D Scrub



D1 - Photo C Class A Forest



D1- Photo D Class A Forest



D1 - Photo E Class G Grassland



D1- Photo F Class G Grassland

5.12 D2 Dalyellup Surf Club Precinct

Strategy Designation	Future Residential	
	Area 22ha	Lot yield 143
Structure Plan	<ul style="list-style-type: none"> Dalyellup Beach Local Structure Plan. Draft Structure Plan Amendment 14 (2021) 	
Bushfire Prone Land	Yes	
Existing Conditions	<p>The existing conditions are shown in Figure 28.</p> <p>Ecological linkage through site and adjacent Regional Open Space.</p> <p>The land is located in the southwest portion of the Dalyellup Beach Estate and is defined by residential development to the north and east, Foreshore Reserve to the west, and Regional Open Space to the south. Dalyellup Boulevard extends along the southern portion of the site and Norton Promenade extends to the northern boundary with other subdivision roads extending to the eastern boundary.</p> <p>The land to the north has been developed for residential purposes. Dalyellup Boulevard provides vehicle access to Dalyellup Beach and surf club.</p> <p>The site has steeply sloping vegetated land including Tuart woodlands and coastal shrubland.</p> <p>The proposed development would extend the linear bushland/POS along Killerby Drive. Dalyellup Boulevard would loop around to the north along the foreshore and connect into Norton Promenade.</p>	
BHL Issues	<p>The Regional Open Space to the south of the site is over 100 hectares and the boundary interface with the site is in part very steep making the provision of an enlarged hazard separation zone difficult.</p> <p>The vegetation in the Regional Open Space continues into the precinct as part of the Ecological linkage. Subdivision will retain internal bushland areas within POS reserves. There is scope for some separation between this and the bushland/POS along Killerby Drive.</p> <p>The foreshore bushland reserve is consistent with the existing developed areas to the north.</p> <p>The site has been recognised in the original Dalyellup Beach Estate structure plan since the mid 1990's. There are potential "legacy" issues, there is scope for reviewing the subdivision design to provide the best balance between implementing the ecological corridor and management of the bushfire hazard interface.</p>	
Bushfire Hazard Level	Existing/Undeveloped	Extreme
	When Developed	Extreme to moderate subject to vegetation clearing.
Summary and Recommendations	<p>The precinct has a moderate / extreme hazard rating. Subdivision design raises potential issues with Element 1 Location.</p> <p>That the Strategy note that there is a high constraint to development and the need to have very clear hazard separation while recognising the ecological corridor.</p> <p>The maintenance of bushland areas within the proposed POS and landscaping specifications must have regard to bushfire management principles.</p>	



LEGEND

DIA BOUNDARY —

ASSESSMENT AREA (150m from the external boundary of the subject site) - - -

PHOTO LOCATION **B** →

PRECINCT AREA **[ha]**

Location Details: Dalyellup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021



FIGURE 28
 D2 DALYELLUP SURF CLUB
 EXISTING CONDITIONS

BPAD Planning & Design
 Job No 21-053
 Rev A Description Preliminary Date 23/11/2021
 LUSHfire and planning
 geoffrey@lushfire.com.au
 0418 954873



D2 - Photo A Class A Forest



D2- Photo B Class A Low Forest



D2 - Photo C Class D Scrub



D2- Photo D Class A Forest

D2- Photo E Class C Shrubland



5.13 D3 Dalyellup South

Strategy Designation	Future Residential		
	Area	90ha	Lot yield 450 - 630
Structure Plan	Dalyellup South Local Structure Plan (2015)		
Bushfire Prone Land	North of Harewoods Road - Yes South of Harewoods Road - Yes except for the central portion.		
Existing Conditions	<p>The existing conditions are shown in Figure 29.</p> <p>There are two parts of the precinct being on the north and south sides of Harewoods Road.</p> <p>Land south of Harewoods Road is adjacent to Regional Open Space. Land north of Harewoods Road has a conservation "possum" corridor.</p> <p>The southern area consists of five lots between 9 and 23 hectares. This extends for approximately 1km south of Harewoods Road and is approximately 750m wide. There is Regional Open Space to the west and south of the site. To the east is the 5 Mile Brook Diversion Drain and reserves 23000 and 28836. These are between 150 and 300m wide extending along Bussell Highway.</p> <p>The southern portion of the precinct contains bushland while the northern portion has been cleared for grazing and sand extraction. The proposed development is for residential purposes and includes a school site and POS areas.</p> <p>The area on the northern side of Harewoods Parade is a "possum corridor" being freehold land. This is approximately 40m wide extending 750m from Maidment Parade to Hornibrook Road. The proposed development was for residential lots with the house sites being located on the cleared land along Citrine Street and Sherwood Drive.</p>		
BHL Issues	<p>There is hazard vegetation on three sides of the southern portion potentially conflicting with Element 1 objectives. The Regional Open Space to the south and south west of the site is over 100 hectares.</p> <p>The development is orientated towards Harewoods Road and to the access will generally leading away from the hazard through a residential built-out area with Bussell Highway being 300m to the east.</p> <p>There is potential to extend Maidment Parade to the south of the site connecting into Minnipup and Lakes Road. However, this would be passing through ROS with an extreme hazard rating.</p> <p>The area on the northern side of Harewoods Parade is a legacy site with few options to redesign it, other than making the "possum corridor" reserved land.</p>		
Bushfire Hazard Level	Existing/Undeveloped	<ol style="list-style-type: none"> South of Harewoods Road. Southern portion is extreme. Northern portion is moderate and low. North of Harewoods Road. Extreme some moderate 	

Bushfire Hazard Level	When Developed	<ol style="list-style-type: none"> South of Harewoods Road Moderate to low subject to vegetation clearing. North of Harewoods Road. Proposed building areas are moderate with adjacent extreme area.
Summary and Recommendations	<p>The precinct has a moderate / extreme hazard rating. When developed it will have a moderate to low hazard rating. The overall subdivision design raises potential issues with Element 1 Location, but there is an existing structure plan and recognition of the site's development potential.</p> <p>That the Strategy note that:</p> <ol style="list-style-type: none"> There is a high constraint to development for the southern portion due to the surrounding bushland but there is an existing structure plan. Any review of this should promote additional hazard separation zones around the boundary of the site. The land on the northern side of Harewoods Road is a legacy site. 	



FIGURE 29
D3 DALYELLUP SOUTH
EXISTING CONDITIONS



Job No 21-053
 Rev A Description Preliminary Date 23/11/2021



D3 - Photo A Class A Forest



D3 - Photo B Class G Grassland



D3 - Photo C Class A Forest



D3 - Photo D Class A Forest and Grassland

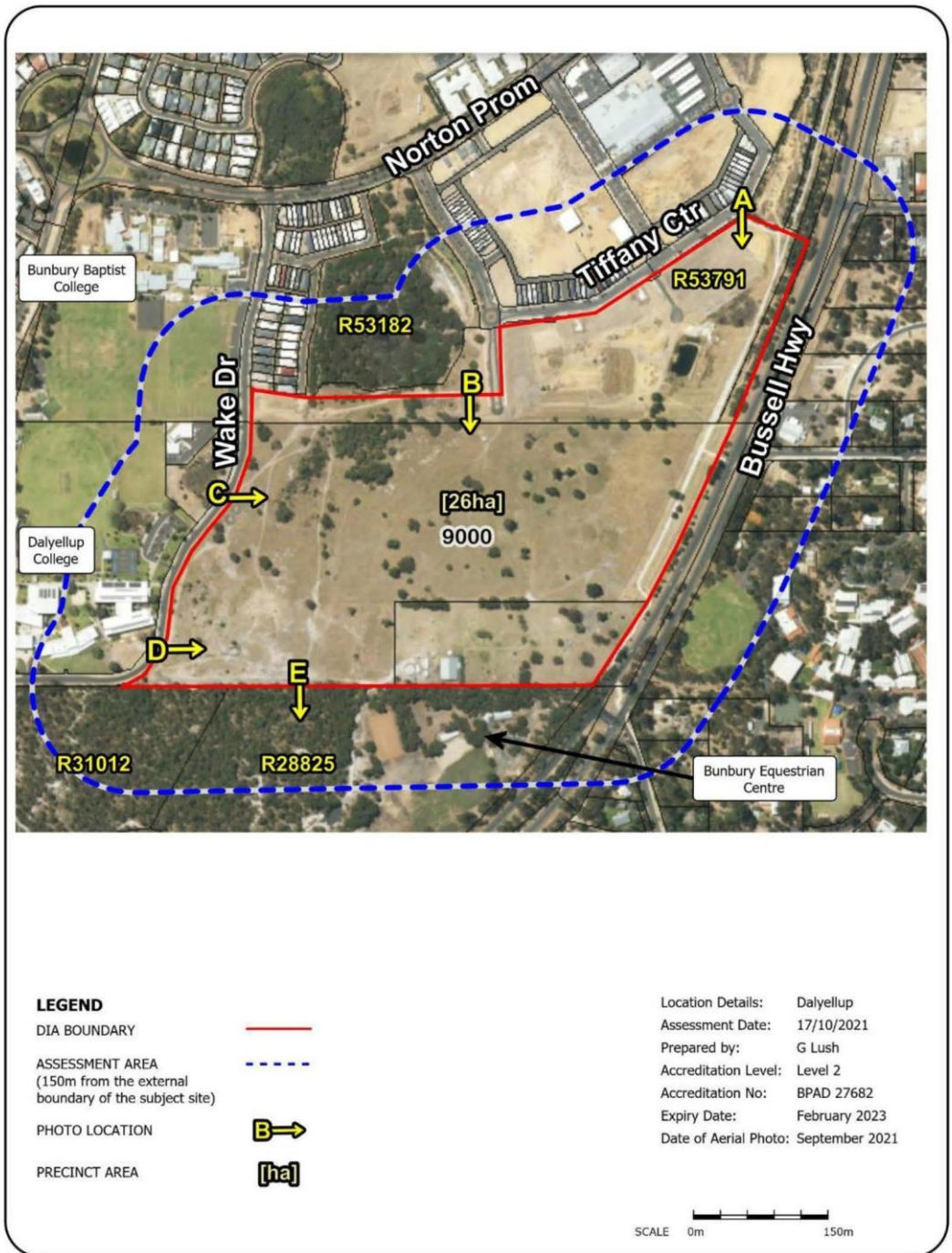


D3 - Photo E Class A Forest



5.14 D4 Wake Drive

Strategy Designation	Future Residential				
	Area 26ha Lot yield 169				
Structure Plan	<ul style="list-style-type: none"> Dalyellup East Local Structure Plan (2006) Amendment 28 - (December 2019) Dalyellup District Centre (2012) 				
Bushfire Prone Land	Only a small portion of the precinct is designated as being bushfire prone being the 100m buffer from the southern boundary.				
Existing Conditions	<p>The existing conditions are shown in Figure 30. Adjacent to Regional Open Space.</p> <p>The precinct is bounded by Wake Drive, Crown Reserves on the southern side, Bussell Highway to the east and the Dalyellup District Centre to the north. Dalyellup College is to the west of the site.</p> <p>Both Reserves 31012 and 28825 are for recreation purposes. All of R31012 and the western half of R28825 contain remnant vegetation. The balance of R28825 contains the Southwest Equestrian Centre/Riding for the Disabled.</p> <p>The site is generally cleared land with some vegetation along Bussell Highway.</p> <p>The proposed development will provide for residential and community uses. There will also be local open space provided along Bussell Highway which includes landscape buffers.</p> <p>Construction of the first stage of subdivision approval WAPC 160664 has commenced.</p>				
BHL Issues	The primary hazard is the vegetation on the southern boundary which adjoins the 5 Mile Brook Diversion Drain and adjacent reserves that extend south of Harewoods Road.				
Bushfire Hazard Level	<table border="0"> <tr> <td>Existing/Undeveloped</td> <td>Moderate and low</td> </tr> <tr> <td>When Developed</td> <td>Predominantly low with some moderate on boundaries.</td> </tr> </table>	Existing/Undeveloped	Moderate and low	When Developed	Predominantly low with some moderate on boundaries.
Existing/Undeveloped	Moderate and low				
When Developed	Predominantly low with some moderate on boundaries.				
Summary and Recommendations	<p>The majority of the precinct is not designated as being bushfire prone. The precinct will have a low hazard rating once development is completed, except for the 100m buffer from the southern boundary.</p> <p>Subdivision and development are to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.</p>				



LEGEND

- DIA BOUNDARY —
- ASSESSMENT AREA (150m from the external boundary of the subject site) - - -
- PHOTO LOCATION B →
- PRECINCT AREA - - - [ha]

Location Details: Dalyellup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021

SCALE 0m 150m

FIGURE 30
 D4 WAKE DR
 EXISTING CONDITIONS



Job No 21-053
 Rev A Description Preliminary Date 23/11/2021





D4 - Photo A Class G Grassland



D4- Photo B Excluded Low Threat



D4 - Photo C Class G Grassland



D4- Photo D Class G Grassland

D4 - Photo E Class A Forest



5.15 D5 Parade Road

Strategy Designation	Future Residential	
	Area 30ha	Lot yield 174 - 215
Structure Plan	Dalyellup East Local Structure Plan (2006)	
Bushfire Prone Land	Only a small portion of the precinct is designated as being bushfire prone being the 100m buffer from the northern and western boundaries.	
Existing Conditions	<p>The existing conditions are shown in Figure 31.</p> <p>Adjacent to Regional Open Space (Kalgulup Regional Park).</p> <p>The precinct extends from Kalgulup Regional Park east to Bussell Highway. Centenary Avenue is on the northern boundary and there is existing residential development to the south. The site is cleared land.</p> <p>There have been several different subdivision approvals on this land. All the lots west of Parade Road are now titled and under construction. The land to the east side of Parade Road is identified for a Residential Aged Care Facility (along Parade Road) and a retirement village (on the balance lot).</p> <p>Parade Road extends through the site connecting to the north with Washington Avenue. To the south it provides direct access to Norton Promenade and the Dalyellup District Centre.</p>	
BHL Issues	<p>Only a small portion of the precinct is designated as being bushfire prone.</p> <p>The primary hazard is the vegetation on the northern and western boundaries being the Kalgulup Regional Park.</p>	
Bushfire Hazard Level	Existing/Undeveloped	Predominantly low
	When Developed	Predominantly low with some moderate on boundaries.
Summary and Recommendations	<p>The majority of the precinct is not designated as being bushfire prone. The precinct will have a low hazard rating once development is completed, except for the 100m buffer from the northern and western boundaries.</p> <p>Subdivision and development are to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.</p>	



LEGEND

DIA BOUNDARY	
ASSESSMENT AREA (150m from the external boundary of the subject site)	
PHOTO LOCATION	
PRECINCT AREA	

Location Details: Dalyellup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021



FIGURE 31
 D5 PARADE ROAD EXISTING CONDITIONS



Job No 21-053

Rev	Description	Date
A	Preliminary	10/01/2017
B	Rev DIAs	14/02/2022





D5 - Photo A Class A Forest



D5 - Photo B Class A Forest



D5 - Photo C Class A Forest



D5 - Photo D Class G Grassland



D5 - Photo E Excluded Low Threat



D5 - Photo F Excluded Low Threat

5.16 D6 Dalyellup Business Precinct

Strategy Designation	Future Industrial	
	Area 4ha	Lot yield 10
Structure Plan	<ul style="list-style-type: none"> Dalyellup East Local Structure Plan (2006) Amendment 28 - (December 2019) Dalyellup District Centre (2012) 	
Bushfire Prone Land	No	
Existing Conditions	<p>The existing conditions are shown in Figure 32.</p> <p>The precinct extends from Tiffany Ctr east to the POS adjacent to Bussell Highway and it is south of Norton Promenade.</p> <p>The proposed development will allow for allows for showrooms (including hardware and bulky goods) and other similar car-based business uses at the edge of the centre, in close proximity to Bussell Highway.</p> <p>The precinct is not designated as being bushfire prone land.</p>	
BHL Issues	None	
Bushfire Hazard Level	Existing/Undeveloped	Moderate, adjacent grassland
	When Developed	Low
Summary and Recommendations	None	



LEGEND

DIA BOUNDARY —

ASSESSMENT AREA
(150m from the external
boundary of the subject site) - - -

PHOTO LOCATION B →

PRECINCT AREA [ha]

Location Details: Dalzellup
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021

SCALE 0m 150m

FIGURE 32
D6 DALYELLUP BUSINESS PRECINCT
EXISTING CONDITIONS



Job No 21-053
 Rev Description Date
 A Preliminary 23/11/2021



D6 - Photo A
Class G Grassland foreground
Class A Forest background

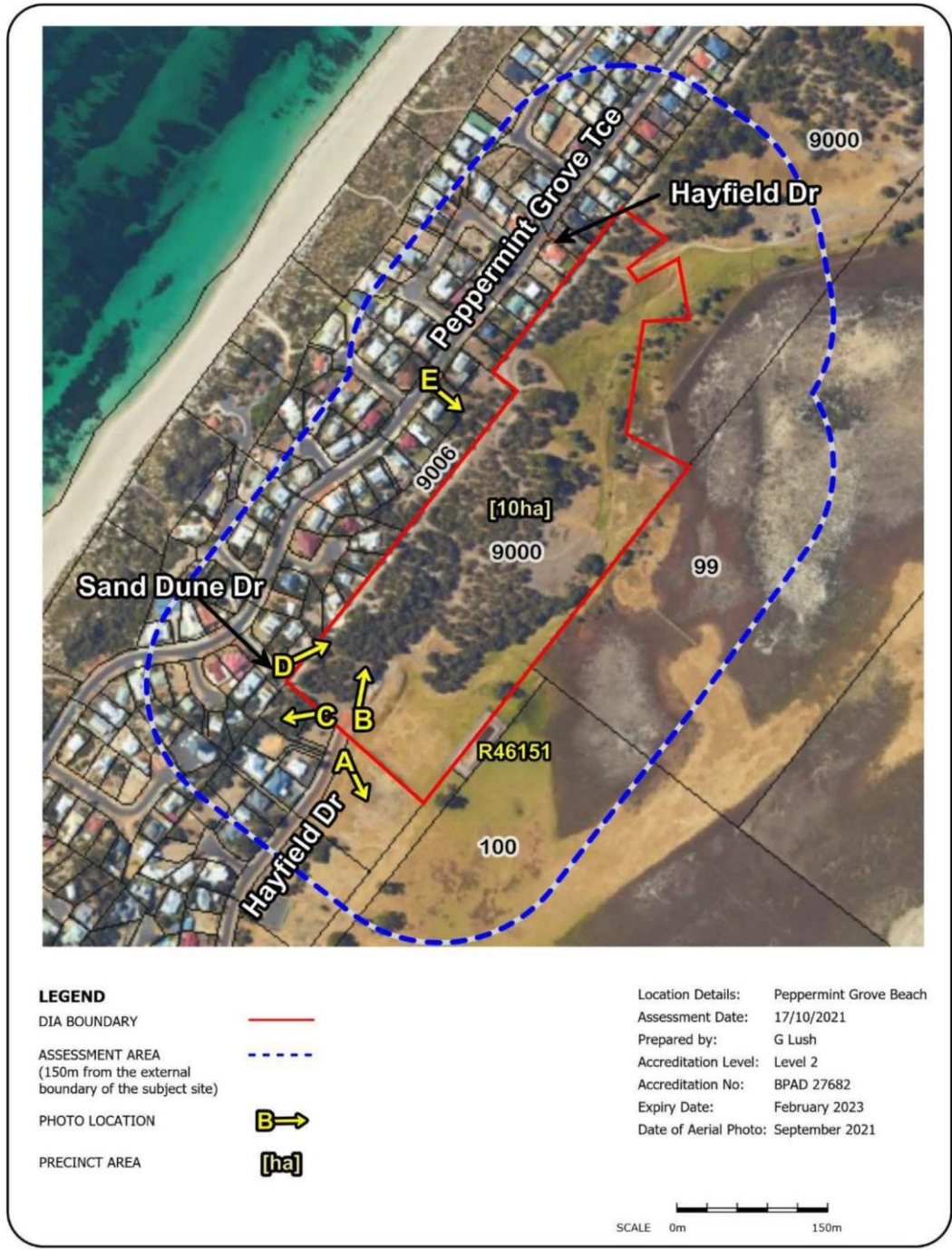


D6 - Photo E
Class G Grassland foreground
Class A Forest background



5.17 PGB1 Hayfield Drive

Strategy Designation	Future Residential	
	Area 10ha	Lot yield 10 - 40
Structure Plan	Peppermint Grove Beach structure plan (2012)	
Bushfire Prone Land	Yes	
Existing Conditions	<p>The existing conditions are shown in Figure 33.</p> <p>The precinct extends north from Hayfield Drive for approximately 500m with a variable width up to 200m.</p> <p>Existing residential development on the western boundary and south on the western side of Hayfield Drive. Rural land on the eastern side.</p>	
BHL Issues	<p>Limited access points from the site to Peppermint Grove Terrace. Development would require substantial vegetation removal which may not be environmentally acceptable.</p> <p>Site has substantial areas of remnant vegetation with moderately steep upslope to the west.</p> <p>Bushfire Risk Management Plan notes that most of the assets within this Peppermint Grove Beach are considered as high, very high or extreme risk rating. This is due to the significant coastal and dune vegetation.</p> <p>At the district level Peppermint Grove Beach only has one access route being Peppermint Grove Road. This extends for 850m from Hayfield Drive connecting into Ludlow Road. This extends north, over the Capel River into Mallopkup and Roberts Road linking back to Bussell Highway. To the south it extends for 9kms to Forest Beach and then to Tuart Drive. The Tuart Forest National Park is on the eastern side of Ludlow Road and this portion of the park is over 1,000 hectares.</p> <p>The direct access to Capel townsite is approximately 8kms being adjacent to the Tuart Forest National Park.</p> <p>There is no large open space area within the townsite which could be considered as a "suitable destination."</p>	
Bushfire Hazard Level	Existing/Undeveloped	Extreme and moderate
	When Developed	Moderate subject to vegetation clearing.
Summary and Recommendations	<p>The precinct has an extreme hazard rating with limited access. It is on the edge of the townsite adjacent to broad acre farming with little scope for a clear hazard separation. The townsite has a single district access.</p> <p>That the Strategy recognise that PGB1 has high to extreme development constraints and is not suitable for further subdivision.</p>	



LEGEND

- DIA BOUNDARY ---
- ASSESSMENT AREA (150m from the external boundary of the subject site) ---
- PHOTO LOCATION B →
- PRECINCT AREA [ha]

Location Details: Peppermint Grove Beach
 Assessment Date: 17/10/2021
 Prepared by: G Lush
 Accreditation Level: Level 2
 Accreditation No: BPAD 27682
 Expiry Date: February 2023
 Date of Aerial Photo: September 2021

SCALE 0m 150m

FIGURE 33
 PGB1 HAYFIELD DRIVE
 EXISTING CONDITIONS

BPAD Planning & Consulting
 Job No 21-053
 Rev A Description Preliminary Date 23/11/2021
 LUSHfire and planning
 geoffrey@lushfire.com.au
 0418 954873



PGB1 - Photo A Class G Grassland



PGB1- Photo B Class A Forest



PGB1 - Photo C Class A Forest



PGB1- Photo D Class A Forest

PGB1 - Photo E Class G Grassland



6.0 BUSHFIRE PROTECTION CRITERIA

The Bushfire Protection Criteria elements and associated performance principles are referenced in Table 4 below.

Table 4 BPC Performance Principles

Element	Performance Principle
1 Location	The strategic planning proposal, subdivision and development application is located in an area where the bushfire hazard assessment is or will, on completion, be moderate or low, or a BAL-29 or below, and the risk can be managed. For unavoidable development in areas where BAL-40 or BAL-FZ applies, demonstrating that the risk can be managed to the satisfaction of the decision-maker.
2 Location and Design	The siting and design of the strategic planning proposal, subdivision or development application, including roads, paths and landscaping, is appropriate to the level of bushfire threat that applies to the site. The proposal incorporates a defensible space and significantly reduces the heat intensities at the building surface thereby minimising the bushfire risk to people, property and infrastructure, including compliance with AS 3959 if appropriate.
3 Vehicular Access	The design and capacity of vehicular access and egress is to provide for the community to evacuate to a suitable destination before a bushfire arrives at the site, allowing emergency services personnel to attend the site and/or hazard vegetation.
4 Water	Provide a permanent water supply that is: <ul style="list-style-type: none"> - sufficient and available for firefighting purposes; - constructed from non-combustible materials; and - accessible, with legal access for maintenance and re-filling by tankers and emergency service vehicles.

A preliminary examination of the investigation precincts in terms of the how likely it is that development can comply with the Bushfire Protection Criteria (Version 1.4 December 2021) is shown in Table 6. The bushfire management / development issues associated with the investigation areas are shown spatially in Figures 13.

This is not a risk assessment and it is not quantifiable unless an actual subdivision design is considered. It is noted that the Element 2 Siting and Design which relates to asset protection zones is not included in the strategic assessment as this specifically applies to the subdivision design.

The categories which have been used for the assessment are as follows with explanatory notes provided in Table 5.

Relativity Weighting	Description - expectation
Extreme	Unlikely to meet the criteria.
High	May meet the criteria subject to further investigation and design.
Moderate	Should meet the criteria depending upon the design.
Low	Expected to meet the criteria.

Table 5 BPC Assessment Explanatory Notes

Assessment Factor	Description
Landscape Context	
Internal bushland	Bushland is considered to be the vegetation categories with an extreme hazard level, being Forest, Woodland, Scrub or land with slopes of more than 10 degrees. While Shrubland has a moderate hazard level care should be taken especially with coastal heath with high fuel loads. As there is a presumption against the general clearing of remnant vegetation in multiple State Planning Policies, large areas of bushland within a site can then become a constraint to development.
Slopes greater than 10 Degrees	Is a factor as the rate of spread and intensity of a fire doubles with every ten degrees of slope
Bushland frontages	Relates to Element 1 Location. Isolated development sites surrounded bushland with an extreme hazard rating is not acceptable. Bushland on one or two sides is likely to be acceptable where the external access is going away from the site. More relevant where the bushland, east, west, north and south, extends for the full frontage of the site rather than just a portion. Also, whether it physically joins the site or is separated from it. The bushland frontage relates to the predominant vegetation and is not intended to include bushland roadside verges where there is adjacent broad acre grazing, cropping land or managed land.
Hazard continuity	The bushfire models used in Australian Standard AS3959 are based on fire behaviour burning in contiguous vegetation over distances greater than 100m. Fire behaviour potentially changes where there is a fragmented mosaic of vegetation classes or short fire runs of less than 100m. This notes if the bushland hazard is continuous especially for more than 100m distance. State Forest would normally have continuous bushland hazard. Conversely a rural residential development may have fragmented vegetation areas. Linear vegetation corridors, especially along rivers maybe continuous but may also be less than 100m wide.
External run length	Where the bushland hazard is more than 1 hectare and more than 100m wide a bushfire can reach its maximum intensity. A short fire run is less than 100m in length. Special note should be made where there is continuous bushland hazard extending for 1km or more which increases the likelihood of a major "landscape fire."
Vehicular Access	
District access	Refers to the external road access and network in relation to that locality or townsite. Should have regard to the road classification and nature of surrounding hazard. Excellent district access means main road / highway access which will normally be in more than one direction. Rural roads leading in one direction through bushland with an extreme hazard rating are not acceptable. This should also consider where the likely "suitable destination" might be for evacuations.

Assessment Factor	Description
Local access	This relates to the internal site access and the potential for multiple access in different directions. It considers any obstructions to this where access might not be possible or likely. Examples might be a linear barrier such as a river, railway or main road corridor. It might also be where the site does not have frontage to a gazetted road and so will rely upon access through a neighbouring property. It is noted that A3.2a potentially allows for single access leading away from the hazard through a residential built-out area with a BAL - Low rating. This would still be high constraint as it would be subject to further investigation and design.
Suitable destination	A suitable destination will normally be a townsite or location where evacuated residents are directed too. It is an area that is not classified as bushfire prone on the Map of Bush Fire Prone Areas, or is greater than 100 metres from classified vegetation as per AS 3959 and can provide shelter during a bushfire event. This might include large areas of public open space, school ovals, etc. Consideration should be given to the time that it is likely to take to reach the location and the extent of any bushland hazard areas that the route might pass through. This consideration can also have regard to the road hierarchy classification.
Water	
Reticulated	It is desirable for residential subdivision to be connected to reticulated water supply. In many instances reticulated water will either be available at the site or be able to be extended to the site. If it is not able to be provided then under other planning requirements the site may not be suitable for residential subdivision i.e. lots less than 1ha. Where a rural residential (lots greater than 1ha) has no water supply then it is necessary to identify a strategic location for a dedicated water tank for firefighting. This is shown as a high constraint where the local government has no identified site, or where it is proposed to be located outside of the precinct as this will be subject to further investigation. Where there is an agreed location, or it is accepted that it will be located within the subdivision, then it is a moderate or low constraint.
Land Use	
Vulnerable	In many residential or rural residential developments vulnerable land uses, including tourist uses, may be possible subject to zoning provisions. That is, they will be discretionary uses in the Scheme and the bushfire assessment can be done as part of a development application. In situations where it is clear that the Scheme, Amendment, or structure plan proposes or allows for vulnerable land uses in areas with an extreme bushfire hazard level, then this will be either a high or extreme constraint. For example, a retirement village in a bushland setting.
High risk	The above issues also apply to a high risk land use in a proposed commercial, mixed use or industrial zone. In addition, it may be necessary to note where there is an existing high risk land use near a proposed development area. This may be relevant even where there are existing buffers in place as these relate to health and amenity issues. For example, a municipal waste site especially if there is continuous bushland vegetation between it and the development area.

Table 6 Investigation Area Assessment

Boyanup Policy Areas

ELEMENT	Land Use	Landscape Context					Vehicular Access			Water	Land Uses	
BOYANUP POLICY AREAS		Internal bushland	Slopes > 10 Deg	Bushland Frontages	Hazard Continuity	External Run Length	District access	Local access	Suitable Destination and time.	Reticulated	Vulnerable	High Risk
B1 EAST BOYANUP	Residential	Some bushland areas	No	Two	Continuous State Forest	State Forest upslope >1km	Good 2 directions	Mixed but generally away from the main hazard	Boyanup townsite < 10 minutes.	Partially available, extension required.	Possible subject to zoning provisions	Unlikely in residential zone
					Other fragmented	Downslope <1km						
B2 SALTER RD	Residential	Some bushland areas	No	Two frontages including railway	Fragmented	<100m	Excellent 4 directions	Internal connection to boundary roads required.	Close proximity.	Extension required	Possible subject to zoning provisions	Unlikely in residential zone
B3 SW HIGHWAY	Residential	Cleared	No	One frontage along the river corridor	Continuous but narrow/linear	<100m	Excellent 4 directions	Limited by river corridor.	Close proximity.	Not available extension required	Possible subject to zoning provisions	Unlikely in residential zone
B4 ENTERPRISE PARK	Residential	Cleared	No	None	N/A	N/A	Excellent 4 directions	Limited by railway but <200m.	Close proximity.	Not available extension required	Unlikely in an industrial / commercial zone	Possible subject to zoning provisions

Peppermint Grove Beach Policy Areas

ELEMENT	Land Use	Landscape Context					Vehicular Access			Water	Land Uses	
PEPPERMINT GROVE BEACH POLICY AREAS		Internal bushland	Slopes > 10 Deg	Bushland Frontages	Hazard Continuity	External Run Length	District access	Local access	Suitable Destination and time.	Reticulated	Vulnerable	High Risk
PGB1 HAYFIELD DR	Residential	Substantial bushland	Potentially	None	N/A	N/A	Poor single access in one direction	Limited due to existing development	Capel townsite 8kms through extreme hazard	Extension required.	Possible subject to zoning provisions	Unlikely in residential zone

Relativity Weighting

Extreme	Unlikely to meet the criteria	High	May meet the criteria subject to further investigation and design	Moderate	Should meet the criteria depending upon the design.	Low	Expected to meet the criteria
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Capel Townsite Policy Areas

	Land Use	Landscape Context					Vehicular Access			Water	Land Uses	
CAPEL POLICY AREAS		Internal bushland	Slopes > 10 Deg	Bushland Frontages	Hazard Continuity	External Run Length	District access	Local access	Suitable Destination and time.	Reticulated	Vulnerable	High Risk
C1 MAITLAND RD	Residential	Some minor bushland areas	No	Two along the river and highway	Linear, some fragmentation	<100m	Excellent 4 directions	Single access away from the hazard. Limited by river and highway.	Close proximity.	Available	Possible subject to zoning provisions	Unlikely in residential zone
C2 WELD/EAST RD	Residential	Some bushland areas	No	External grassland.	N/A	N/A	Good 2 directions	Internal connection to boundary roads required.	Capel townsite < 10 minutes	Partially available	Possible subject to zoning provisions	Unlikely in residential zone
C3 CAPEL DR	Residential	Generally cleared	No	Two frontages	Fragmented	Slightly >100m	Excellent 4 directions	Limited by highway.	Close proximity.	Available	Possible subject to zoning provisions	Unlikely in residential zone
C4 SE CAPEL NORTH	Residential	Substantial bushland	No but river corridor has short steep slopes	One frontage along the river corridor	Continuous but narrow/linear	<100m	Indirect but potentially in 2 directions	Limited by river and existing development and bushland	Capel townsite < 10 minutes	Extension required	Proposed retirement village	Unlikely in residential zone
											Other subject to zoning provision	
SOUTH	Residential	Generally cleared with minor bush areas	No but river corridor has short steep slopes	One frontage along the river corridor	Continuous but narrow/linear	<100m	Good 2 directions	Limited by river corridor.	Capel townsite < 10 minutes	Extension required	Possible subject to zoning provisions	Unlikely in residential zone
C5 ILUKA	Residential	Partially cleared	No	Two along railway and north of Gavins Road.	Continuous	Slightly >100m	Excellent 4 directions	Good.	Close proximity.	Available	Possible subject to zoning provisions	Unlikely in residential zone
C6 LIA EXPANSION	Industrial	Cleared	No	Two including highway	Continuous	Slightly >100m	Excellent 4 directions	Restricted by highway and railway	Close proximity.	Available	Unlikely in an industrial zone	Possible subject to zoning provisions

Relativity Weighting

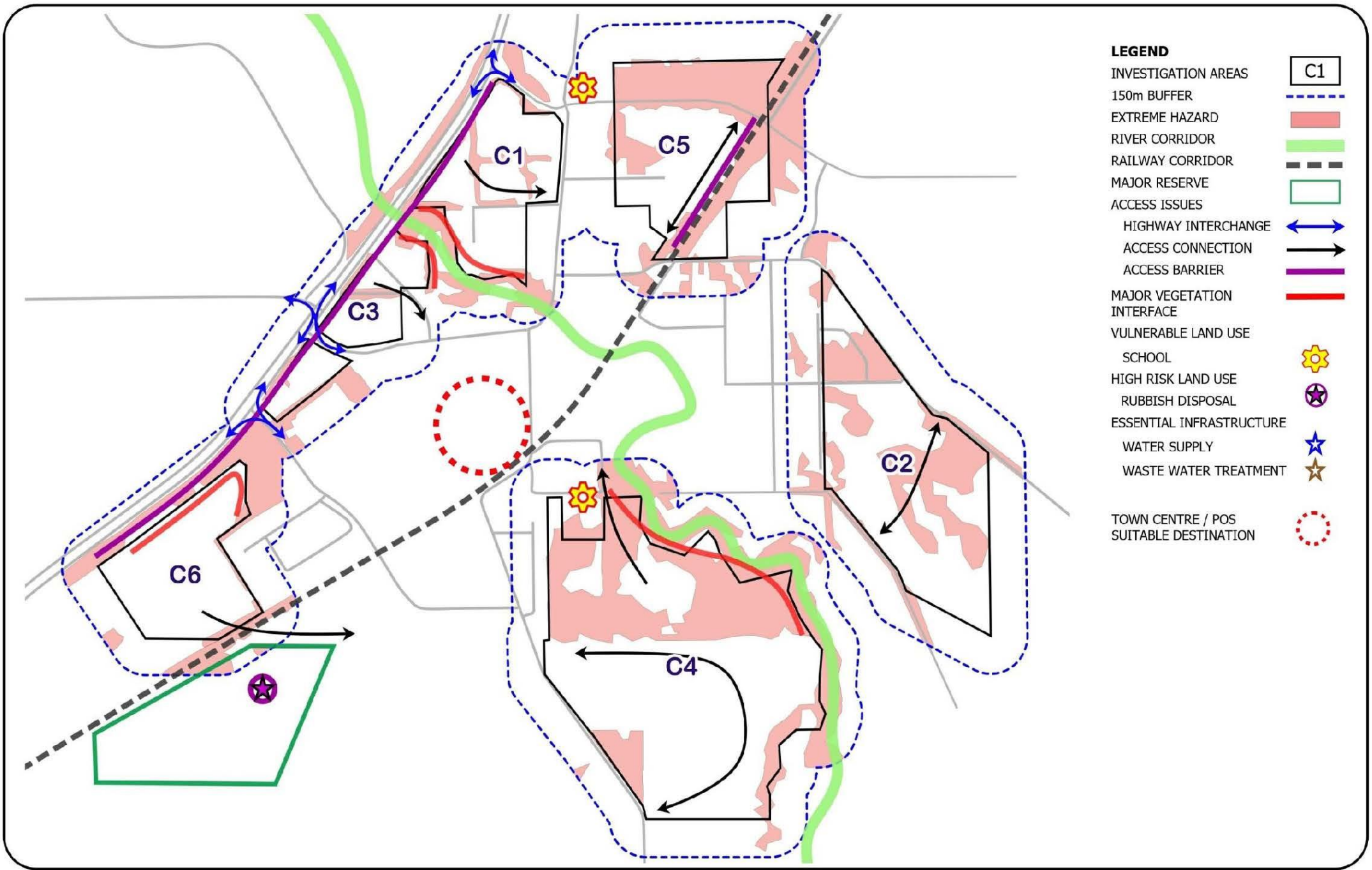
Extreme	Unlikely to meet the criteria	High	May meet the criteria subject to further investigation and design	Moderate	Should meet the criteria depending upon the design.	Low	Expected to meet the criteria
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Dalyellup Policy Areas

ELEMENT	Land Use	Landscape Context					Vehicular Access			Water	Land Uses	
		Internal bushland	Slopes > 10 Deg	Bushland Frontages	Hazard Continuity	External Run Length	District access	Local access	Suitable Destination and time.		Reticulated	Vulnerable
DALYELLUP POLICY AREAS		Internal bushland	Slopes > 10 Deg	Bushland Frontages	Hazard Continuity	External Run Length	District access	Local access	Suitable Destination and time.	Reticulated	Vulnerable	High Risk
D1 GREENPATCH	Residential Community	Substantial bushland	Potentially	Three	Continuous ROS	Up to 1km	Good 2 directions	Single main access with second minor access in dispute.	Dalyellup Commercial Centre	Available	Possible subject to zoning provisions	Unlikely in residential zone
D2 SURF CLUB	Residential	Substantial bushland	Potentially	Three	Continuous ROS	> 1km	Good 2 directions	Multiple	Dalyellup Commercial Centre	Available	Possible subject to zoning provisions	Unlikely in residential zone
D3 DALYELLUP SOUTH	Residential Community	Half bushland areas	No	Three	Continuous ROS	> 1km	Good 2 directions	Multiple but all single direction all leading away from hazard	Dalyellup Commercial Centre	Available	Possible subject to zoning provisions	Unlikely in residential zone
D4 WAKE DR	Residential	Cleared	No	One	Continuous	> 100m	Good 2 directions	Multiple	Dalyellup Commercial Centre	Available	Possible subject to zoning provisions	Unlikely in residential zone
D5 PARADE RD	Residential	Cleared	No	Two	Continuous ROS	Up to 1km one side	Good 2 directions	Multiple	Dalyellup Commercial Centre	Available	Possible subject to zoning provisions	Unlikely in residential zone
D6 BUSINESS PRECINCT	Commercial	Cleared	No	No	N/A	N/A	Good 2 directions	Multiple	Dalyellup Commercial Centre	Available	Possible subject to zoning provisions	Possible subject to zoning provisions

Relativity Weighting

Extreme	Unlikely to meet the criteria	High	May meet the criteria subject to further investigation and design	Moderate	Should meet the criteria depending upon the design.	Low	Expected to meet the criteria
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LEGEND

INVESTIGATION AREAS	C1
150m BUFFER	---
EXTREME HAZARD	■
RIVER CORRIDOR	—
RAILWAY CORRIDOR	- - -
MAJOR RESERVE	□
ACCESS ISSUES	
HIGHWAY INTERCHANGE	↔
ACCESS CONNECTION	→
ACCESS BARRIER	—
MAJOR VEGETATION INTERFACE	—
VULNERABLE LAND USE	
SCHOOL	⚙
HIGH RISK LAND USE	★
RUBBISH DISPOSAL	★
ESSENTIAL INFRASTRUCTURE	★
WATER SUPPLY	★
WASTE WATER TREATMENT	★
TOWN CENTRE / POS SUITABLE DESTINATION	⦿

FIGURE 34
CAPEL SPATIAL ISSUES



Job No 21-053

Rev	Description	Date
A	Preliminary	10/01/2017
B	Rev DIAs	14/02/2022
C	Final Approval	15/11/2022



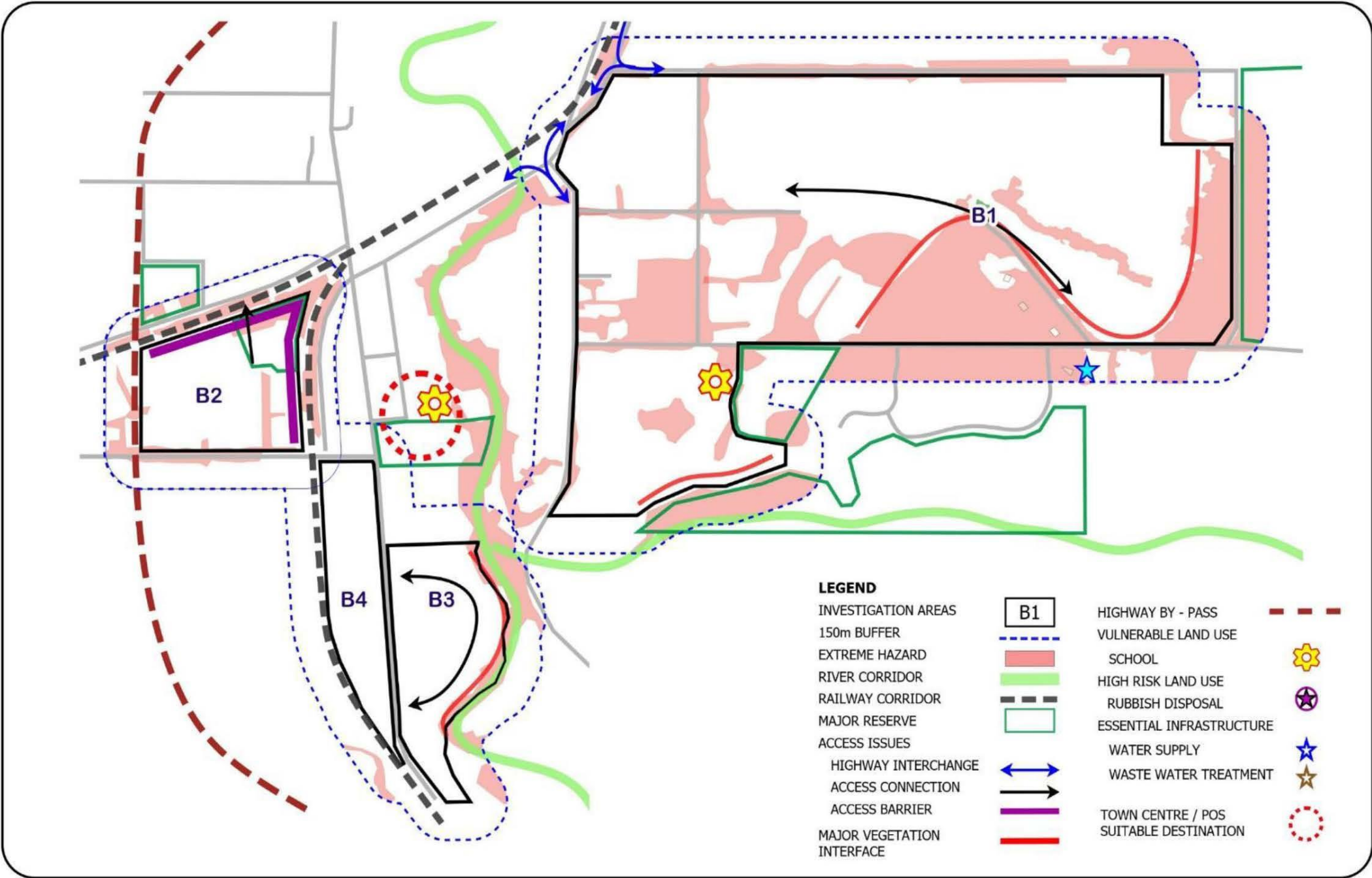


FIGURE 35
BOYANUP SPATIAL ISSUES



Job No 21-053

Rev	Description
A	Preliminary
B	Rev DIAs

Date
10/01/2017
14/02/2022





LEGEND

INVESTIGATION AREAS		D1
150m BUFFER		
EXTREME HAZARD		
DRAINAGE CORRIDOR		
COASTAL FORESHORE		
ECOLOGICAL CORRIDOR		
MAJOR RESERVE		
ACCESS ISSUES		
HIGHWAY INTERCHANGE		
ACCESS CONNECTION		
ACCESS BARRIER		
MAJOR VEGETATION INTERFACE		
VULNERABLE LAND USE		
SCHOOL		
HIGH RISK LAND USE		
RUBBISH DISPOSAL		
ESSENTIAL INFRASTRUCTURE		
WATER SUPPLY		
WASTE WATER TREATMENT		
TOWN CENTRE / POS		
SUITABLE DESTINATION		

FIGURE 36
DALYELLUP SPATIAL ISSUES

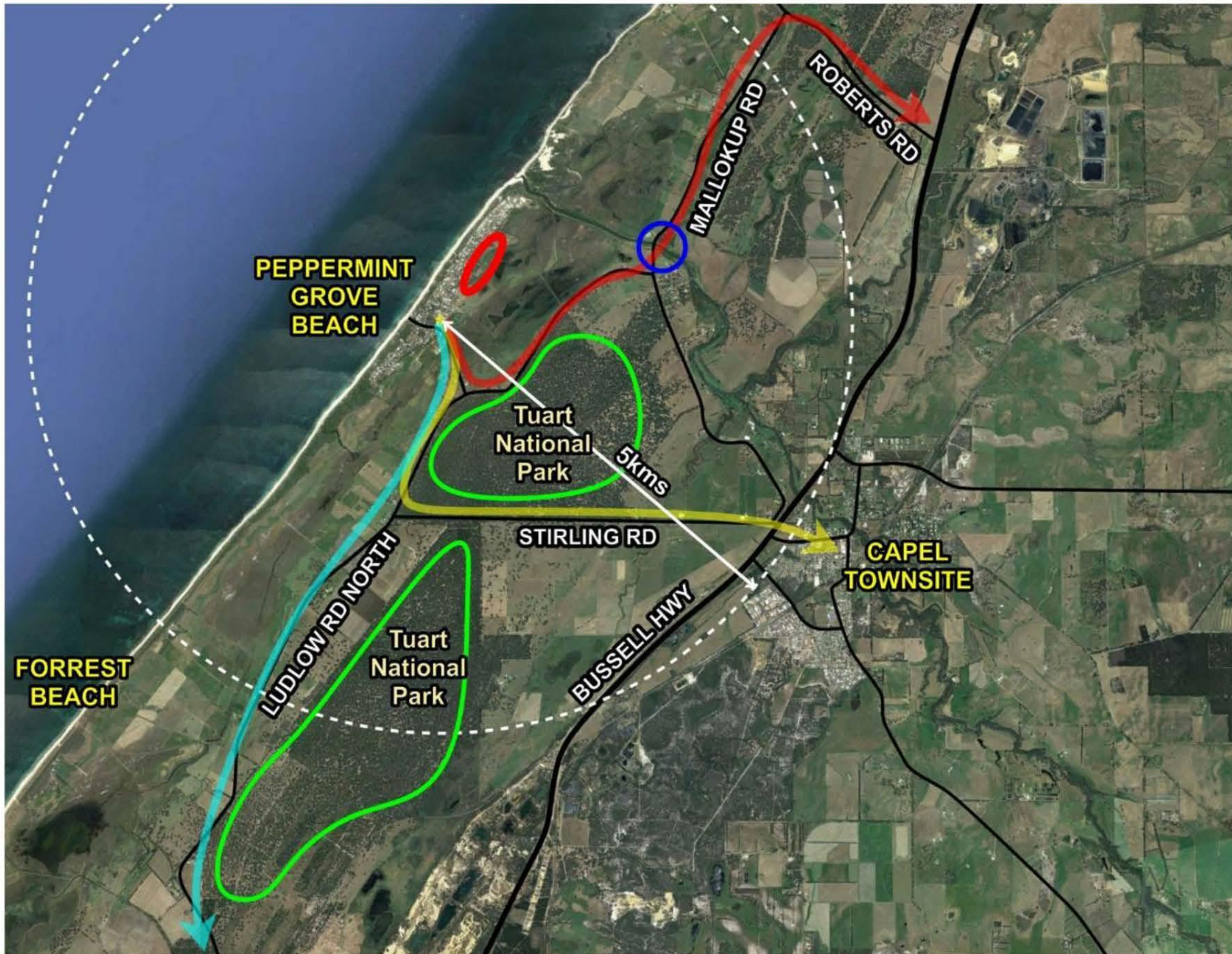


Job No 21-053

Rev	Description
A	Preliminary
B	Rev DIAs

Date	10/01/2017
	14/02/2022





LEGEND







- PG1B HAYFIELD DR 
- FOREST VEGETATION
Extreme Bushfire
Hazard Level 
- CAPEL RIVER BRIDGE
4m trafficable surface 
- ROUTE 1 - 8kms 
- ROUTE 2 - 10kms 
- ROUTE 3 - 9.8kms 

FIGURE 37
PG1B HAYFIELD DRIVE CONTEXT



Job No 21-053
Rev Description
A Preliminary
B Rev DIAs

Date
10/01/2017
14/02/2022



7.0 CONCLUSION

This bushfire hazard level assessment has been undertaken to support and inform the preparation of Council's local planning strategy. The assessment has been undertaken at a strategic level given that it was not possible to physically inspect all of the vegetation units in each investigation area.

All of the townsites have significant areas of bushland with an extreme bushfire hazard level. This is not unusual in many country towns where the surrounding farm land is generally cleared creating an increased desire to maintain and protect bushland areas. There is a recognised desire for people to live in closer contact with natural landscape, particularly on the urban fringe and rural residential areas. For many communities and government agencies the substantial modification or clearing of native vegetation is no longer acceptable.

Multiple investigation areas have approved local structure plans but many of these have not been implemented or have only been partially implemented. Most of the existing structure plans were prepared prior to the introduction of SPP3.7 in December 2015 and they will expire in 2025. These structure plans need to be reviewed and assessed in relation to the current version of the Guidelines.

The most important issue arising from this assessment is the need to ensure that at both a district and local level that there is suitable multiple access to localities and development sites.

7.1 General Recommendations

It is recommended that subdivision and development should comply with the following general recommendations:

- G. Subdivision and development on bushfire prone land is to occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.
- H. That any structure planning for the proposed policy areas must address bushfire management issues and the co-ordination of bushfire management measures.
- I. That district and local ecological corridors and environmental buffer areas should be identified or referenced in the local planning strategy and form part of any detailed bushfire hazard assessment.
- J. That the provision of multiple access especially for subdivisions by either a public road, emergency access way or fire service access route be given high priority in the planning for all policy areas.
- K. That it be acknowledged that the clearing of remnant vegetation to the "minimum extent necessary" to permit development is based upon the setbacks required for a BAL-29 rating.
- L. That any structure plan or Scheme review consider the location, zoning permissibility and development criteria for vulnerable and high-risk land uses.

7.2 Development Investigation Area Recommendations

The specific recommendations for each Development Investigation Area are provided in Table 7.

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Table 7 Policy Areas Implementation

RECOMMENDATIONS		Planning Strategy	Planning Scheme or Amendment	Structure Plan	Subdivision Application	Development Application	Local Planning Policy
B1 East Boyanup							
1	That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access and the interface between development and bushland areas. Consider removing areas of extreme hazard (adjacent to state forest in the east and Armstrong Road to the south) where development may be likely to be exposed to an extreme bushfire hazard.	✓	✓	✓	✓		
B2 Salter Road							
2	That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access. In particular the formalisation of public road access across the railway corridor to Payne Street, by the saleyards.	✓	✓		✓		
B3 South Western Highway							
3	That the Strategy note that there is a moderate constraint to development and subdivision can occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria	✓	✓		✓		
B4 Boyanup Enterprise Park							
4	That the Strategy note that the precinct is not designated as being bushfire prone and has low constraints for development. However, it will be desirable for a fire service access route to be provided adjacent to the railway line.	✓					

RECOMMENDATIONS		Planning Strategy	Planning Scheme or Amendment	Structure Plan	Subdivision Application	Development Application	Local Planning Policy
C1 Maitland Road							
5	That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access.	✓	✓	✓	✓		
C2 Weld Road/East Road							
6	That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access. A direct road connection between Jamieson and Weld Roads is required.	✓	✓	✓	✓		
C3 Capel Drive							
7	That the Strategy note that there is a moderate constraint to development. Road access will need to be addressed following the finalisation of the Bussell Highway / Capel interchange.	✓	✓	✓	✓		
C4 South East Capel							
8	That the Strategy note that the northern portion of the precinct has significant constraints to development due to the existing vegetation and potential access issues. The existing structure plan should be reviewed due to the proposed extensive vegetation clearing which may no longer be acceptable.	✓	✓	✓	✓		
9	That the Strategy note that the southern portion of the precinct has a moderate constraint to development; and that subdivision can occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.	✓	✓	✓	✓		

RECOMMENDATIONS		Planning Strategy	Planning Scheme or Amendment	Structure Plan	Subdivision Application	Development Application	Local Planning Policy
C5 Iluka							
10	That the Strategy note that there is a moderate constraint to development and the need to co-ordinate subdivision applications to address road access.	✓	✓		✓	✓	
C6 LIA Expansion							
11	That the Strategy note the moderate to high constraint to development due to the access issue.	✓	✓		✓		
12	That any proposed structure plan consider: <ul style="list-style-type: none"> The provision of secondary access to Bussell Highway and/or Range Road. Any proposed Emergency Access Way must demonstrate why a public road cannot be provided; and A significant asset protection zone between the development and the bushland (POS) area on the corner of Spurr Street and Bussell Highway. 			✓			
13	The design objective for any subdivision would be for the proposed buildings to be located so has to have a BAL-12.5 rating.				✓		✓
D1 Greenpatch							
14	That the Strategy note that there is a high constraint to development and without a second access the site is not suitable for further subdivision.	✓	✓	✓	✓		
15	The maintenance of bushland areas and landscaping specifications within the proposed POS areas must have regard to bushfire management principles.			✓	✓		
D2 Dalyellup Surf Club Precinct							
16	That the Strategy note that there is a high constraint to development and the need to have a clearly defined hazard separation zone especially along the southern boundary.	✓	✓	✓	✓		
17	The maintenance of bushland areas and landscaping specifications within the proposed POS areas and ecological corridor must have regard to bushfire management principles.				✓		✓

RECOMMENDATIONS		Planning Strategy	Planning Scheme or Amendment	Structure Plan	Subdivision Application	Development Application	Local Planning Policy
D3 Dalyellup South							
18	That the Strategy note that there is a high constraint to development for the southern portion due to the bushland within and surrounding the site.	✓	✓	✓			
19	Any review of the structure plan should promote additional hazard separation zones around the boundary of the site.	✓	✓	✓	✓		
20	That the Strategy note that the land on the northern side of Harewoods Road is a legacy site with little opportunity for being redesigned.	✓			✓		
D4 Wake Drive							
21	That the Strategy note that the majority of the precinct is not designated as being bushfire prone and has low constraints to development. The bushfire prone land is the 100m buffer from the southern boundary. Subdivision can occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.	✓			✓		
D5 Parade Road							
22	That the Strategy note that the majority of the precinct is not designated as being bushfire prone and has low constraints to development. The bushfire prone land is the 100m buffer from the northern and western boundaries. Subdivision can occur in accordance with the policy measures of SPP3.7 and the Bushfire Protection Criteria.	✓			✓		
D6 Dalyellup Business Precinct							
23	That the Strategy note that the precinct is not designated as being bushfire prone and has no constraints for development.	✓					
PGB1 Hayfield Drive							
24	That the Strategy recognise that PGB1 has high to extreme development constraints and is not suitable for further subdivision.	✓					

8.0 REFERENCES

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