



Piesse Lake Structure Plan

SEPTEMBER 2017

(SPN/2031)

prepared for the Shire of Katanning

Piesse Lake Structure Plan (SPN/2031)

Prepared by:
Land Insights

PO Box 289
Mount Lawley WA 6936

Phone: (08) 9271 8506
Email: admin@landinsights.com.au
Web: landinsights.com.au



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Oct-15	969-03 Draft D-Oct15-MT	MT	Draft Structure Plan for internal review and finalisation.	Nov 15
Jan-16	969-03 Draft E-Jan16-MT	MT	Draft Structure Plan revised in accordance with Structure Plan Framework (August 2015) Additional information inserted relating to draft Local Planning Scheme Provisions Other updates as required.	Feb-16
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Technical input provided by:

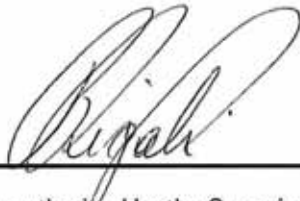
1. Shawmac Consulting Engineers
2. Bushfire Prone Planning
3. Talis Consultants
4. Galt Geotechnics
5. Terratree

This Structure Plan is prepared under the provisions of the Shire of Katanning Local Planning Scheme No. 4.

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

18 January 2018

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



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



WITNESS

18 January 2018

DATE

18 January 2028

DATE OF EXPIRY

Table of Amendments

Amendment No.	Summary of the Amendment	Amendment Type	Date Approved by WAPC

Pre-lodgement Consultation

The following were consulted as the Structure Plan was being prepared.

Agency or Organisation	Date of Consultation	Method of Consultation
Shire of Katanning	July 2014, May 2015, November 2015, February/March 2016	Meeting, Phone, Email
Department of Planning	October 2014	Meeting
Great Southern Development Commission	July 2014, May 2015	Meeting
Department of Environment Regulation	September 2014	Letter
Western Power	2015	Email/Online
Water Corporation	Various, 2014 and 2015	Email/Online

Executive summary

Piesse Lake is recognised as the Shire of Katanning's premier passive open space destination through the Super Town Growth and Implementation Plan. This Structure Plan has been prepared to provide guidance on the future development of the site, focussing on land uses to support the ongoing development of the open space area.

The Piesse Lake Structure Plan area includes existing public and private recreation areas and residential land which has been identified as a Development Investigation Area (DIA) in the Local Planning Strategy with the following purpose:

"To provide for a mix of residential development including medium density housing and potential aged accommodation around a high amenity lake and parkland revitalisation."

The Piesse Lake Structure Plan responds to the sites challenges by incorporating elements that achieve amenity and functional objectives. The design creates linkages to the lake creating an attractive interface and connection with the existing town. The aim of this Structure Plan is to guide development which will enhance the amenity to the east of the central business district transforming a currently underutilised and undeveloped reserve into a unique medium residential density infill and recreational area.

The Structure Plan applies to Lots 1 and 3 Synott Street and Lots 1 and 79 Warren Avenue, Katanning being the land contained within the Structure Plan map.

Land description

Land Description	Vol/Fol	Street Address	Registered Proprietor
Lot 3 on Diagram 27422	1261/665	Lot 3 Synnott Ave, Katanning	Shire of Katanning of Katanning
Lot 1 on Diagram 26384	1383/405	Lot 1 Synnott Ave, Katanning	Shire of Katanning of 16/24 Austral Terrace, Katanning
Lot 79 on Diagram 13273	1878/185	Lot 79 Warren St	Shire of Katanning of Austral Terrace, Katanning
Lot 1 on Diagram 3847	1878/186	Lot 1 Warren St, Katanning	Shire of Katanning of Austral Terrace, Katanning

Land uses proposed within the Structure Plan area include:

- Medium-density residential land.
- Aged and Independent Persons development
- Public Open Space
- Associated Roads.

This Structure Plan is the first prepared for the site and does not supersede any earlier planning work.

A summary of the proposal is outlined in the table below.

Item	Data (Approximate, subject to detailed design)
Total area covered by the structure plan	17.70 ha
Area of each land use proposed: <ul style="list-style-type: none"> <li>• Residential <li>• Aged and Dependent Persons <li>• Public Open Space 	5.157ha 1.585ha 10.954ha
Total estimated lot yield	Approximately 50 Residential, including grouped/multiple dwelling sites

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1	Structure Planning – Environmental Investigations
2	Local Water Management Strategy Rev A
3	Bushfire Hazard Assessment
4	Transport Assessment
5	Servicing and Infrastructure

Abbreviations

Asbestos Containing Material.....	ACM
Australian Height Datum.....	AHD
Average Recurrence Interval.....	ARI
Below Ground Level.....	bgl
Bushfire Attack Level.....	BAL
Department of Aboriginal Affairs.....	DAA
Department of Agriculture and Food.....	DAFWA
Department of Environment Regulation.....	DER
Department of Parks and Wildlife.....	DPaW
Department of Planning.....	DoP
Department of the Environment.....	DotE
Department of Water.....	DoW
Development Investigation Area.....	DIA
Environmental Protection Authority.....	EPA
Environmental Protection and Biodiversity Conservation.....	EPBC
Megavolt Amperes.....	MVA
State Planning Policy.....	SPP
Water Information Network.....	WIN
Western Australian Planning Commission.....	WAPC

PART ONE

Implementation

1 Implementation

1.1 Structure Plan Area

The Piesse Lake Structure Plan shall apply to Lots 1 and 3 Synnott Street and Lots 1 and 79 Warren Avenue, Katanning being the land contained within the Structure Plan map (Figure 1.1: Piesse Lake Structure Plan map).

Table 1.1 – Land description

Land Description	Volume/ Folio	Street Address	Registered Proprietor
Lot 3 on Diagram 27422	1261/665	Lot 3 Synnott Ave, Katanning	Shire of Katanning of Katanning
Lot 1 on Diagram 26384	1383/405	Lot 1 Synnott Ave, Katanning	Shire of Katanning of 16/24 Austral Terrace, Katanning
Lot 79 on Diagram 13273	1878/185	Lot 79 Warren St	Shire of Katanning of Austral Terrace, Katanning
Lot 1 on Diagram 3847	1878/186	Lot 1 Warren St, Katanning	Shire of Katanning of Austral Terrace, Katanning

1.2 Operation

The Structure Plan comes into effect on the date the Structure Plan is approved by the WAPC. This date is outlined in the certification on Page ii of this document.

1.3 Staging

The Shire is currently completing the Piesse Lake Botanical Gardens that form part of the Public Open Space. The development sites will be released by Council as required. Release of lots approved by subdivisions proposed which meet the structure plan objectives will be dependent on developer commitment and market demand.

1.4 Subdivision and development requirements

Residential Density Target

The Structure Plan provides the potential for a medium Residential Density Target by depicting a density code that will be permitted (see Figure 1.1). The permitted range will achieve a density of between 25 to 50 lots/dwellings per hectare.

An average of 30 Lots and Dwellings per site hectare was applied to estimate yield for infill areas in Katanning. The Structure Plan provides opportunity for the Shire to target these residential infill targets by providing a variety of residential uses and densities.

Design requirements

The following subdivision design requirements apply:

- Lots of R30 density or greater shall be subject to detailed design guidelines indicating interface with the public open space, surveillance, fencing, paths, landscaping and building orientation. The eastern and southern lots adjoining the public open space reserve are to be orientated to face east or south respectively. An internal ring road is to be constructed between areas identified as Residential and Public Open Space.

Public Open Space

The provision of Public Open Space is outlined clearly on the Structure Plan.

The assembly and development of the Public Open Space, including development of Piesse Lake and adjoining Botanical Gardens, is being undertaken by the Shire as part of separate process known as the "Piesse Park Botanic Garden" project. To support the successful integration of the park/lake and adjacent development areas the Shire of Katanning will ensure that the following considerations are incorporated into the project:

- Water management and construction of the lake in accordance with outcomes/recommendations of the Local Water Management Strategy.
- The existing "Residential" zoned land on Lot 1 Synnott Street will be included in the Public Open Space. The Shire of Katanning has undertaken investigation of the site identified by the Department of Environmental Regulation as *Potentially contaminated*, and has implemented remediation management recommendations prior to development of the land for Public Open Space.
- Appropriate measures be being taken in relation to mosquito management in accordance with the Department of Health (DoH) *Chironomid midget and mosquito risk assessment guide for constructed water bodies* (2007) given the presence of existing and future residential properties in close proximity to the water bodies.
- Preparation of a detailed Landscaping and Management Plan for the Piesse Lake and adjoining Public Open Space, which should address the following:
 - Revegetation/vegetation utilising endemic species and dense planting regimes.
 - Detail treatment of the interface between existing lots backing onto the open space along the southern boundary of the structure plan with access from Starling Lane, Forrest, Federal and Frederick Street to include landscaping, fencing and/or pathways to address surveillance, safety and connectivity
 - Address the access, surveillance and connectivity with the proposed medium density development
 - Car parking
 - Paths, boardwalk and bridges
 - Facilities such as bbq's, toilets, benches, playgrounds
 - Lighting
 - Signage.

Documents to accompany subdivision and development applications

Preparation of the following documents, to the specifications of the Shire of Katanning, and submitted with an application for subdivision approval in the Structure Plan area:

- A Department of Water and Environment Regulation endorsed Urban Water Management Plan (UWMP). The UWMP is to include recommendations from the following key sections of the Local Water Management Strategy (LWMS) including "Water Use Sustainability Initiatives', Groundwater Management Strategies', UWMP recommendations', 'Monitoring' and 'Implementation'.
- A Contaminated Site Assessment for Lot 1 Synnott Avenue.
- A detailed Geotechnical Study as per recommendation in 'Further Studies' of the Preliminary Geotechnical Report (September 2014)
- A Landscape and Management Plan;

- A Servicing and Infrastructure Report to design and implement services across the site and thus ensure affordability of servicing prior to subdivision (as considerable headworks are anticipated including an upgrade to the existing 150 dia sewer to a 225 dia along Warren Rd).
- A Subdivision Staging Plan which provides public open space, pathways and essential roads and services within Stage One.
- A Cost Contributions Schedule for community facilities including replacement of the bowling club facility currently located at Lot 3 Tait Terrace, public open space infrastructure and other development.
- A Bushfire Management Plan that responds to the final built form of the Public Open Space area of the PLSP.

Conditions of Subdivision Approval

The following are recommended conditions of Subdivision Approval specific to the Structure Plan area.

- All development to be provided with connection to reticulated water and sewerage services;
- Notifications to be placed on the title of all lots advising that floor levels are to be set a minimum of 500mm above the external 100 ARI flood levels of the creek (approximately 308.5m AHD);
- Notifications on titles regarding proximity to known mosquito breeding areas.
- Implementation of endorsed Urban Water Management Plan;
- All works undertaken with an awareness of obligations as set out in the South West Native Title Settlement Agreement including following the Aboriginal Heritage Due Diligence Guidelines and where necessary undertaking a Heritage Survey prior to development.
- No direct impacts to known long neck turtle habitat. If necessary turtles should be removed during construction and then returned. Removal of a fauna species is a licensed activity and any works must be approved by the relevant government agency.

Local Development Plan

- A Local Development Plan is to be prepared for all residential Lots with a density of R30 or greater. The Plan is to address interface with adjoining lots and public open space, surveillance of streets and/or laneways, fencing, landscaping and building orientation.
- A separate Local Development Plan is to be prepared for Lot 3 Tait Tce to provide for aged and independent living. A community/communal facility should be incorporated into any development of the site.



BEECK ST

992

69

67

66

65

64

63

62

61

60

59

58

3

R30-R50

SYNNOTT AV

WAGGON RD

79

R40

INTERFACE BETWEEN RESIDENTIAL AND
POSTO TO BE DETERMINED AT DETAILED
DESIGN STAGE

1015

75

76

77

78

80

FREDERICK ST

49

48

ANDREWS CT

4

7

8

9

GUNBY ST

84

16

15

FOPREST ST

19

20

21

22

23

26

27

FEDERAL ST

81

31

CLIVE ST

12

459

465

999

CLIFF ST

312

313

314

STARBUCK L

24

25

28

29

11

PART TWO
Explanatory Section

2 Planning background

2.1 Introduction and purpose

The Piesse Lake Structure Plan is recognised as the Shire of Katanning's premier passive open space destination through the Super Town Growth and Implementation Plan.

Piesse Lake Structure Plan area includes existing public and private recreation areas and residential land which has been identified as a Development Investigation Area (DIA) in the Local Planning Strategy with the following purpose:

"To provide for a mix of residential development including medium density housing and potential aged accommodation around a high amenity lake and parkland revitalisation."

The Piesse Lake Structure Plan responds to the sites challenges by incorporating elements that achieve amenity and functional objectives. The design creates linkages to the lake creating an attractive interface and connection with the existing town. The aim of this Structure Plan is to guide development which will enhance the amenity to the east of the central business district transforming a currently underutilised and undeveloped reserve into a unique medium residential density infill and recreational area.

The objectives are to:

- Rehabilitate and create an environmental and recreational feature in development of Piesse Lake Botanical Gardens and associated Public Open Space
- Create a focal point for the community
- Facilitate medium density development in town
- Provide a balanced range of lot sizes with access to open space
- Provide options for aged person, independent, short stay and affordable accommodation
- Provide connections and cohesion with the existing town to add vibrancy to the existing centre
- Provide an interconnected movement network that balances the needs of pedestrian, cyclists and vehicles within the Structure Plan area and into the existing town
- Increase local population catchment to support the existing commercial, retail and tourist ventures in the town and locality
- Promote collaborative involvement with the community, non-governmental organisations and state and local government agencies
- Recognise Mythological significance.

2.2 Location and Land Description

The Piesse Lake Structure Plan is located north east of the railway and the town centre and represents a central location to the public open space network servicing the towns residential areas. The site is bound by Synnott Avenue to the north, Tait Terrace, Adam Street and Fredrick Street to the north-east, Clive Street to the south-east, Starling Lane to the south-west and Warren Road to the west.

The combined landholdings comprise 19.6 hectares. Land ownership details are described in Table 2.1 - Legal Description and Ownership.

Existing open space area

The current recreation area includes Piesse Lake located at the south-east corner, and parkland cleared vegetation in a degraded condition. The recreational area is bounded by existing constructed roads. Work is ongoing to upgrade the Piesse Lake and commence development of the adjoining Botanical Gardens and Public Open Space.

The recreation area is the subject of rehabilitation. A previous landfill area located at the northern end of the structure plan area has recently been covered in 300mm of clay as part of rehabilitation works in accordance with a previous environmental assessment of the area (undertaken separately to the Structure Plan process). Earthworks have also progressed in creation of a lake in the centre of the site and some associated landscaping.

Katanning Bowling Club

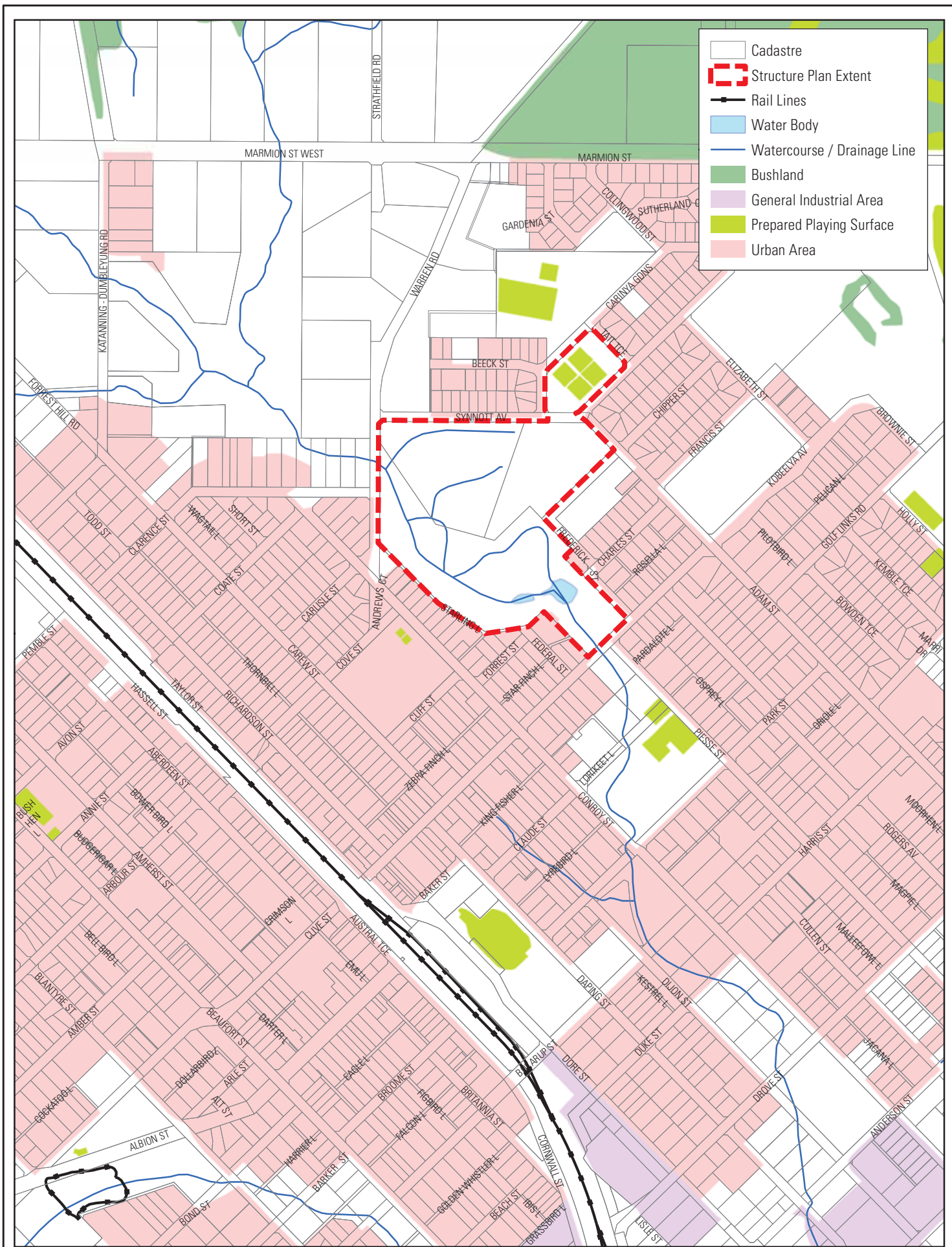
Lot 3 Synnott Avenue includes the Katanning Bowling Club and associated club rooms and parking facilities. The club is still used however there are plans in place to relocate to a combined sporting area elsewhere in the town.

Surrounding residential land

The surrounding residential development largely comprises low density single storey dwellings, with some limited two storey Department of Health dwellings nearby. The existing interface of the Structure Plan area with the residential area includes standard colour bond and super six fencing where residential land abuts.

Table 2.1: Legal Description and Ownership

Lot	Lot Area	Title Details	Road Name	Land owner
3	1.6ha	D27422	Synnott Avenue	Shire of Katanning
1	3.1ha	D26384	Synnott Avenue	Shire of Katanning
79	4.6ha	D13273	Synnott Avenue	Shire of Katanning
1	8.4ha	D3847	Warren Road	Shire of Katanning



- Cadastre
- Structure Plan Extent
- Rail Lines
- Water Body
- Watercourse / Drainage Line
- Bushland
- General Industrial Area
- Prepared Playing Surface
- Urban Area

2.3 Planning framework

Shire of Katanning Town Planning Scheme No. 4

The Structure Plan area is affected by three land use classifications in Town Planning Scheme No. 4 ("TPS4").

The central portion of the site is reserved for *Recreation and Open Space*, while the remainder of the central area is currently zoned R12.5/25). The bowling club land is included in Special Use zone SU3, with the associated purpose of private *Club and Recreation*.

The north-eastern section zoned *Special Use SU3*. *SU3* is located on Lot 3 Synott Avenue and is bound by Tait Terrace, Braeside Road, and Carinya Gardens for the purpose of private *Club and Recreation*. The north-central section is zoned *Residential 12.5/25*. Zoning is described in Table 2.2 below.

Table 2.2 – Town Planning Scheme

Land description	Zone
Lot 3 Synnott Avenue (D27422)	Special Use SU3
Lot 1 Synott Avenue (D26384)	Southern portion reserved as Recreation and Open Space and remainder Residential R12.5/25
Lot 79 Synnott Avenue (D13273)	Majority is reserved as <i>Recreation and Open Space</i> and northern portion zoned <i>Residential R12.5/25</i>
Lot 1 Warren Road (D3847)	Reserved as Recreation and Open Space

The objectives of the zones relating to Piesse Lake are outlined in Table 2.3 below.

Table 2.3: Zone Objectives

Zone	Objective
Special Use SU3	Special Use zones will apply where the Council wants to have specific land use control and/or development requirements. This may be on land where a mix of land uses is appropriate but which are not readily captured by the terms of a specific zone. Special Use 3 is " <i>Private Club and Recreation</i> ".
Residential R12.5/25	<ul style="list-style-type: none"> a) to retain the single house as the predominant form of residential development in the town. b) to provide for lifestyle choice in and around the town with a range of residential densities. c) to allow for the establishment of non-residential uses subject to local amenities not being adversely affected. d) to achieve a high standard of residential development. Council may permit a development density of up to R25 where the development would be connected to the reticulated sewerage system
Recreation and Open Space	N/A

TPS4 contains no specific provisions for the consideration and adoption of a Structure Plan, however with the introduction of the *Planning and Development Regulations 2015* deemed provisions now provide a mechanism for the Shire to consider and assess a Structure Plan. The current zone of the site arguably does not trigger the requirements of Clause 15 of the regulations, however it is envisaged that Clause 15(c) may be invoked.

Draft Shire of Katanning Local Planning Scheme No. 5

Draft Local Planning Scheme No.5. (LPS5) is currently being advertised. LPS5 proposes that the southern portion of the Structure Plan area be included within the *Urban Development* zone. Table 3 of LPS outlines Additional Provisions relating to this zone, which provide the basis for the preparation and endorsement of a Structure Plan. The relevant clause states:

- 1) Prior to the Local Government granting approval to any development or supporting any proposal for subdivision or development of land within the Urban Development Zone, other than development and minor changes in the use of land outlined in (2) below, a Structure Plan shall be prepared and approved.
- 2) Notwithstanding the provisions of (1) above, within the Urban Development Zone the Local Government may consider the establishment of those uses in accordance with the zoning table prior to the completion and endorsement of a structure plan.
- 3) Where a Structure Plan has been endorsed by the Local Government and the Western Australian Planning Commission, the land to which the Structure Plan applies shall be developed generally in accordance with the Structure Plan.

Lot 3 Tait Terrace, Braeside Road, Synnott Avenue and Carinya Gardens, Katanning (currently comprising the Bowling Club) is retained within Special Use Zone SU3. The Special Uses within this zone are expanded (compared to TPS4) to include *Private Club and Recreation, Residential Uses Other associated complementary uses approved by the Local Government*.

Katanning Super Town: Growth and Implementation Plan

The Growth Plan identifies Piesse Lake as the premier passive open space destination in Katanning. The Growth Plan identifies this site and suggests that the Structure Plan is *to provide for medium density housing around high amenity dam and parkland revitalisation*. The Spatial Growth Plan identifies Piesse Lake as *Redevelopment Area to Encourage Higher Density Development*. A *Green Link Enhancements* is also identified through the site and an *Activity/Exercise Trail* is located along the south-west boundary of the site.

The Growth Plan identifies a range of features to incorporate into the development of Piesse Lake, Botanic Gardens and adjoining Public Open Space. These are largely being refined as part of a separate project currently being undertaken by the Shire.

The Structure Plan area has been identified in the Growth Plan as an ideal location to provide a higher density of housing which would greatly improve the housing choice in the town. The area is well situated as being close to the town centre and hospital, as well as being provided with a high amenity environment with the proposed upgrades to Piesse Lake.

The Growth Plan identifies a number of transformational projects based on their ability to contribute to the economic, social and environmental qualities of the town. Four key project areas are identified. Project 1 is Town Centre Commercial and Streetscape Revitalisation with the objective of *planning and undertaking the structural modifications necessary for Katanning to have a sufficiently robust town centre to accommodate future growth*.

Recommendations from the Growth Plan relating to Piesse Lake include:

- Recommendation 39 – Prepare a structure plan around Piesse Lake to incorporate open space upgrades, rationalisation of the public open space improve amenity and provide medium density housing
- Recommendation 43 – Prepare a structure plan for the length of Clive Street between the main street precinct and Piesse Lake to provide a higher density residential and mixed use transition from the main street to the medium density precincts

- Recommendation 74 – Work with major land owners in vicinity of Piesse Lake with a view to setting up a joint venture with LandCorp to produce medium density housing which reflects the ‘urban living in the country’ theme
- Recommendation 75 – Encourage the progressive consolidation and redevelopment of defined areas close to the town centre and Piesse Lake for urban consolidation
- Recommendation 83 – Promote R40 medium density housing opportunities on land bounded by Synott Ave, Adam St and Chipper St on the periphery to achieve surveillance of the park and offset development costs
- Recommendation 84 – Encourage redevelopment of Department of Housing lots on Synott Ave for medium density housing (this is adjacent to the structure plan area)
- Recommendation 85 – Utilise bowling club land for medium density housing if club relocated
- Recommendation 87 – Create a venue for major community gatherings with facilities
- Recommendation 86 – Create a multi-use drainage corridor along Piesse Creek
- Recommendation 83 – Promote R40 medium density residential opportunities on land bound by Synott Avenue, Adam Street and Chipper Street on the periphery to achieve surveillance of the park
- Recommendation 84 – Encourage redevelopment of Department of Housing lots on Synott Avenue for medium density housing.

As the Structure Plan has progressed further consideration and refinement of these recommendations has occurred with the resultant Structure Plan addressing many of these items.

Shire of Katanning Local Planning Strategy

Piesse Lake has been identified as a Priority 1 Development Investigation Area (DIA) 2 in the Shire of Katanning Local Planning Strategy with the following purpose:

“To provide for a mix of residential development including medium density housing and potential aged accommodation around a high amenity lake and parkland revitalisation.”

Development investigation areas are subject to detailed planning prior to subdivision and development. The Strategy recommended at the time that the Local Planning Scheme No. 5 will include priority DIAs to accommodate a minimum of 5 years’ potential urban expansion where detailed planning and environmental assessment and land use outcomes are finalised by the Structure Plan process. The mechanism proposed under LPS5 will be to introduce a Future Development Zone for infill and priority DIAs to facilitate subdivision and development control to be addressed by endorsed Structure Plans. Since the preparation of the Local Planning Strategy

Table 1 of the Local Planning Strategy describes DIA2 as comprising 21.2ha. Factoring in approximately 45% for retained open space, drainage, and roads, the LPS states that the developable area estimates 11.6ha yielding approximately 290 Lots @ 25 Lots/ha.

The Land Use Designation for Piesse Lake is *Residential Infill*. An *Activity/Exercise Trail* and *Multi Use Corridor* are identified along the southern end which corresponds to the Katanning Creek and Piesse Lake.

The Local Planning Strategy identifies the following in regards to DIA 2:

Table 2.4 – LPS Opportunities and Constraints

Opportunities and characteristics	Constraints
<ul style="list-style-type: none"> • Infill and increased residential density (R20 to R40) • Variety of dwelling types • Aged accommodation • Consolidate, revitalise and activate residential area close to town centre, hospital and open space • Rationalise and provide high amenity public open space for housing and community use • Existing creek/drainage line degraded • Majority of area cleared with isolated trees. 	<ul style="list-style-type: none"> • Existing development • Servicing • Drainage/water management • Land tenure and reservation/zoning • Contaminated site • Tree retention • Pedestrian linkage required to DIA 1 to implement the LPS Multiple Use Corridor.

The opportunities and constraints outlined in the Local Planning Strategy have informed this Structure Plan and formed the starting point for further detailed investigations undertaken. Recommendations regarding Local Planning Scheme No. 5 have been reviewed in line with the requirements of the revised requirements for Local Planning Schemes.

Great Southern Regional Planning and Infrastructure Framework

The Framework defines a strategic direction for the future development of the Great Southern region over the next 20 years. It highlights the opportunities for economic development and infrastructure priorities for the region, and addressed land use planning response to future growth and development pressures.

The framework recognises Katanning as part of the "Regional Centres Development Plan" and as a sub-regional centre that offer services and facilities which provide for the needs of the local community and that of the rural population in their sub-regional hinterland.

In terms of economic growth, the Framework recognises that there are opportunities to increase value of livestock and livestock products in the region and that the new Katanning sale yards will play an important role in supporting this growth. The gold mining operation near Katanning is identified in the Framework as a potential employer in the region, especially during the construction phase. It notes that attracting residents to live in the area would provide the greatest economic benefit to the region. Jobs in the manufacturing, service sector and retail should grow as a result.

Regarding services and infrastructure, the Framework notes that there will also be a need to provide a higher level of infrastructure and services in Katanning that also services a number of smaller rural communities in the northern part of the region. It is hoped that through the higher level of accessibility and services this will increase the attractiveness of the town in retaining and growing population. This will lead to a growth in the provision of retail, employment, recreational and other activities. Katanning is supplied by the Great Southern Towns Water Supply Interconnected Scheme, however Water Corporation plans to phase out reliance in this area on local water sources and focus on reducing risk and securing safe drinking water. SuperTown planning for Katanning could include a major upgrade to the Narrogin-Katanning connection to the Harris Dam.

The preparation of this Structure Plan is supported by recommendation A43 which is to plan for population growth in Albany and the sub-regional centres – Local planning strategies and schemes for Katanning to provide sufficient zoned land to accommodate a range of services such as retail, administrative, general health and specialist health, education, recreation, community and entertainment.

State Planning Policies

A number of State Planning Policies (SPP) are relevant to the Piesse Lake Structure Plan. These are outlined in Table 2.5 below.

Table 2.5 – State Planning Policies

SPP	Description	Comment
SPP 1 State Planning Policy Framework (Variation No. 2)	SPP 1 helps guide the decision-making process in regards to land use and development in WA. It indicates which policies and strategies the WAPC and the Department of Planning should refer to when making decisions. It provides a list of all the plans, policies and strategies that form a part of the State Planning Framework.	SPP 1 should be referred to during the preparation of the Piesse Lake structure plan and the relevant policies which should be referred to.
SPP 2 – Environment and Natural Resources	SPP 2 defines the principles and considerations that represent good and responsible planning in terms of environment and natural resource issues within the framework of the State Planning Strategy.	A number of environmental features have been taken into consideration in the preparation of the Piesse Lake structure plan such as waterbodies, vegetation, soils and habitat. These features will be appropriately protected through the provision of recreational areas and open space.
SPP 2.9 – Water Resources	This policy provides clarification when taking water resources into account in the planning process.	A number of waterbodies are located within the structure plan area. These features will be appropriately protected through the provision of recreational areas and open space.
SPP 3 – Urban Growth and Settlement	The aim of this policy is to facilitate sustainable patterns of urban growth and settlement by setting out the requirements of sustainable settlements and communities and the broad policy in accommodating growth and change.	Urban development (including residential development) within the Structure Plan area is consistent with SPP 3.
SPP 3.1 – Residential Design Codes	This Policy provides a comprehensive basis for the control of residential development throughout Western Australia.	The Residential Design Codes will be included into the Structure Plan provisions where required.
SPP 3.6 Development Contributions for Infrastructure	This policy aims to promote the efficient and effective provision of public infrastructure and facilities to meet the demands arising from new growth and development and to ensure that development contributions are charged equitably among those benefiting from the infrastructure and facilities to be provided.	Development contributions will be considered during the more detailed planning stages.
SPP 3.7 – Draft Planning for Bushfire Risk Management	This policy should be used to inform and guide decision-makers, referral authorities and proponents to achieve acceptable fire protection outcomes on planning proposals in bush-fire prone areas.	Bushfire hazard assessments and Fire Management Plan will be prepared for Piesse Lake. The bushfire hazard across the site is predominantly low.

SPP	Description	Comment
SPP 5.4 Road and Rail Transport Noise and Freight Considerations in Land Use Planning	This policy aims to promote a system in which sustainable land use and transport are mutually compatible.	Development of sensitive land uses in Piesse Lake such as residential should consider the impact of existing road and rail transport noise. However, considering Piesse Lake is already surrounded by residential land uses, this is not considered a major issue.

WAPC Development Control Policies

Relevant WAPC Development Control (DC) Policies are discussed in Table 2.6 below.

Table 2.6 – Development Control Policies

Policy	Description	Comment
DC Policy 1.1 – Subdivision of Land – General Principles	This policy sets out the general principles used by the WAPC in determining applications for the subdivision of land. It specifies the WAPC's basic requirements for the creation of new lots as well as the procedures it will follow in processing subdivision applications.	It's important that the information required by the WAPC is included in the Structure Plan and any future subdivision applications in accordance with DC 1.1.
DC Policy 1.7 – General Road Planning	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.	This policy should be referred to at the detailed planning stage.
DC 2.2 – Residential Subdivision	This policy establishes the WAPC requirements for the subdivision of land into residential lots.☒	This policy should be referred to at the detailed planning stage.
DC 2.3 – Public Open Space in Residential Areas	This policy sets out the requirements of the Commission for public open space and the provision of land for community facilities in residential areas. The basic component is the requirement that 10 percent of the gross subdivisible area of a conditional subdivision shall be given up free of cost by the subdivider for public open space.	The Piesse Lake structure plan includes a substantial amount of public open space for the purposes of public recreation.
DC 2.6 – Residential Road Planning	This policy sets out the WAPC's requirements for the planning and design of roads in residential areas and provides guidelines for the design and layout of residential roads.	This policy should be referred to at the detailed planning stage.

EPA Position Statements

Relevant EPA Position Statements are discussed in the table below.

Table 2.7 – EPA Position Statements

Policy	Description	Comment
Position Statement 2 – Environmental Protection of Native Vegetation in WA	This Statement addresses the issues of native vegetation clearing in WA, particularly in agricultural areas. The EPA has previously stated that <i>all existing remnant native vegetation is important, and it should be managed to ensure its retention</i> . It states that the EPA could possibly support clearing in agricultural areas providing the proposal has a net environmental benefit, the area to be cleared is relatively small and that any residual land degradation will not be intensified.	The Structure Plan area comprises small areas of native vegetation and parkland cleared trees. It is important that the principles of this position statement are given due consideration, however it is considered that the areas to be cleared as part of the structure plan proposals will be relatively small given most of the site is already cleared.
Position Statement 3 – Terrestrial Biological Surveys as an Element of Biodiversity Protection	The EPA has prepared this Position Statement to ensure that the issue of biological diversity is recognised as being of importance in the land use planning process and to ensure that minimum standards of survey work are undertaken to enable the EPA to undertake an assessment of a proposed activity.	The provisions of this position statement are to be followed in the preparation of flora and fauna surveys across the structure plan area.
Position Statement 4 – Environmental Protection of Wetlands	The Position Statement defines important environmental values and functions of wetlands and establishes principles for the environmental protection of wetlands in general. It suggests land use zoning should be applied so as to achieve sustainable water resources management and protect the beneficial functions performed by wetlands as part of that process.	No wetlands are located within the structure plan area; however, some minor watercourses are located throughout which will need adequate protection in accordance with the general principles of this Position Statement.
Position Statement 7 – Principles of Environmental Protection	This position statement sets the scene for environmental management in WA. Key principles include the precautionary principle, conservation of biological diversity and ecological integrity, waste hierarchy, best practice, accountability and transparency and enforcement.	The future structure planning process should pay particular regard to the principles contained within the statement.
Position Statement 9 – Environmental Offsets	This statement provides guidance on environmental offsets to ensure a 'net conservation benefit' to proposals.	This statement will need to be referred to if environmental offsets are required as part of the project. Considering the environmental values of the site are not significant and the impact will be low, environmental offsets may not be required.

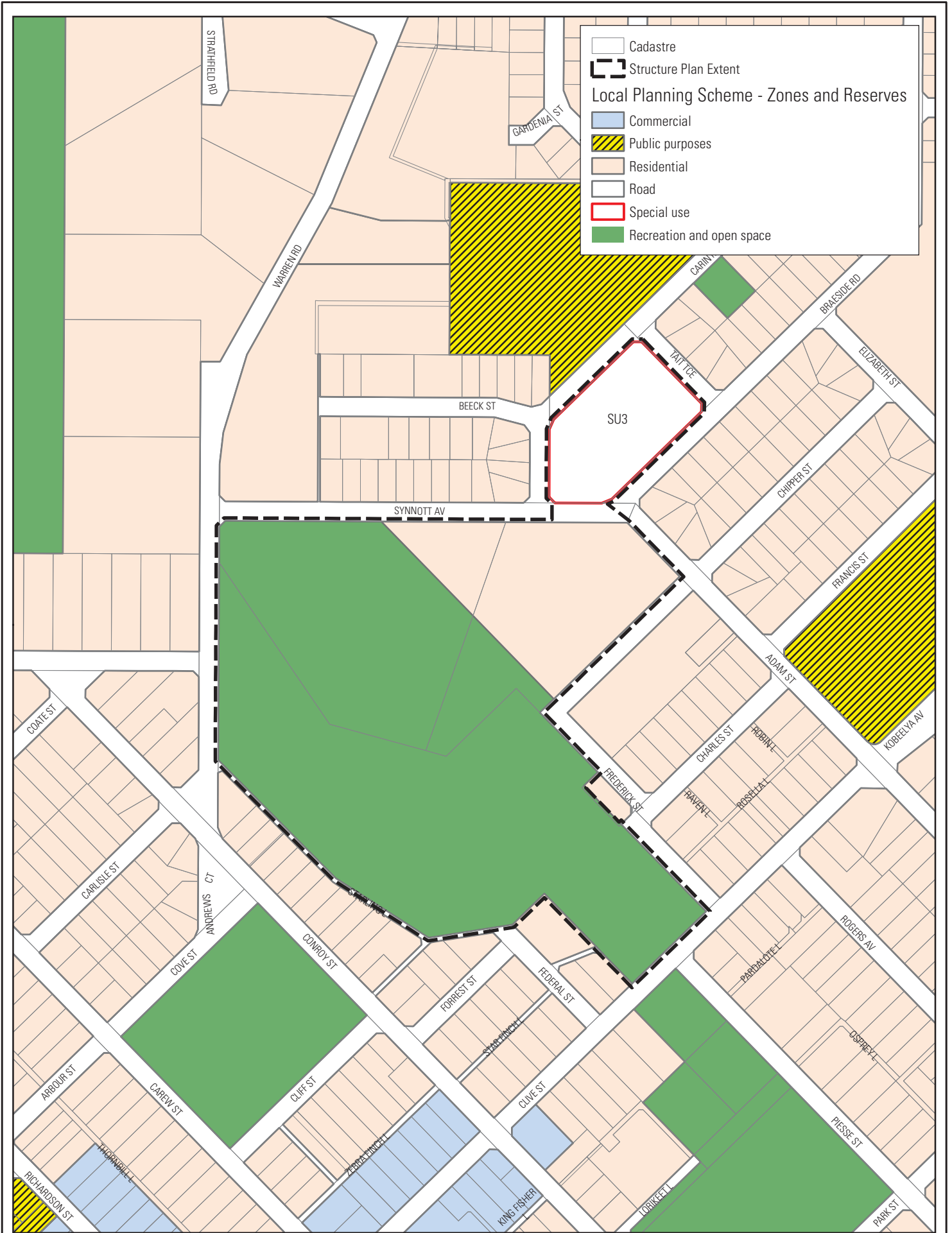
EPA Guidance Statements

Relevant EPA Guidance Statements are discussed in the table below.

Table 2.8 – EPA Guidance Statements

Policy	Description	Comment
Guidance Statement No. 3 – Separation Distances between Industrial and Sensitive Land Uses	This statement provides guidance on the generic separation distances between sensitive and industrial land uses to avoid conflicts between these uses. It aims to protect sensitive land uses from unacceptable impacts on amenity that may result from industrial activities, emissions and infrastructure. Impacts from emissions include noise and air emissions (gases, dust and odours). Types of sensitive land uses include residential development, public services (hospitals, schools, shopping centres, playgrounds etc.), tourist development (caravan parks and hotels) and some public buildings.	The separation distances provided in this statement will be generally applied to the structure plan and will need to be further refined at a detailed planning stage once the exact land uses are determined. It is understood that this guidance statement is currently under review.
Guidance Statement No. 8 – Environmental Noise	This statement provides guidance to proponents submitting proposals for environmental impact assessment to ensure that noise emissions comply with the <i>Environmental Protection (Noise) Regulations 1997</i> . Noise is defined in the Environmental Protection Act as vibration of any frequency, whether transmitted through air or any other physical medium.	The general principles in this statement will be applied to the structure plan. However, noise will need to be further considered further once the exact land uses are determined.
Guidance Statement No. 19 – Environmental Offsets Biodiversity	This statement provides advice on environmental offsets for proposals or schemes that impact on biodiversity. It is to be read in conjunction with Position Statement No. 9 but provides more specific advice particularly in relation to the technical application of biodiversity offsets.	This statement will need to be referred to if environmental offsets are required as part of the project. Considering the environmental values of the site are not significant and the impact will be low, environmental offsets may not be required.
Guidance Statement 33 – Environmental Guidance for Planning and Development	This statement provides an overview of information to assist proponents and decision making authorities in considering environmental management as part of the planning and development process. It also contains guidance for the Environmental Impact Assessment process	The information in this statement has been referred to in the environmental assessment of the structure plan to ensure that all relevant information is provided. Further detailed assessments may be required once the details of the development have been more accurately determined.
Guidance Statement No. 51 – Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia	This statement provides direction and information on the general standards and protocols for terrestrial flora and vegetation surveys as part of the environmental impact assessment process.	This statement should be referred to in the preparation of vegetation and flora surveys and reports.

Policy	Description	Comment
Guidance Statement No. 55 – Implementing Best Practice in Proposals Submitted to the Environmental Impact Assessment Process	This statement provides guidance on what the EPA means by the term ‘best practice’ when it is used in the environmental impact assessment process and the approach the EPA will take when assessing proposals. It has a particular focus on human health and the environment as affected by, but not confined to, industrial processes.	The guiding principles in this statement should be referred to at a more detailed planning stage once the exact land uses and industries are more clearly determined.
Guidance Statement No. 56 Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia	This statement provides direction and information on the general standards and protocols for terrestrial fauna surveys as part of the environmental impact assessment process.	The statement should be referred to in the preparation of fauna surveys and reports.



3 *Site conditions and constraints*

3.1 *Biodiversity and natural assets*

Vegetation

A Level 1 vegetation and flora survey was undertaken by Terratree in September 2014 in accordance with EPA Guidance Statement 51. A search was undertaken of the following databases within a 20km radius of the site:

- DPaW's Threatened and Priority Flora
- DPaW's Threatened Ecological Communities
- WA Herbarium Declared Rare and Priority Flora
- Department of the Environment's Projected Matters Search Tool.

A total of 41 significant floras were recorded on the databases. No species of Threatened Flora (Declared Rare Flora) pursuant to the WA Wildlife Conservation Act 1950, or listed as Threatened pursuant to the EPBC Act 1999 were recorded during the targeted search or the Level 1 vegetation survey. As the site is cleared of native vegetation, no flora species of conservation significance were identified at the site.

Vegetation condition at the site was classified as being 'completely degraded' (according to the scale by Keighery (1994)) as the vegetation is no longer intact and the area is completely or almost completely without native species. The vegetation can be described as 'parkland cleared' with the flora comprising weed or crop species with isolated trees or shrubs (Terratree, 2014).

There were no Threatened or Priority Ecological Communities identified within a 20 km radius of the site.

A complete copy of the Flora and Fauna Assessment by Terratree (2014) is provided at Appendix 1.

Fauna

A Level 1 fauna survey was undertaken by Terratree in September 2014 in accordance with EPA Guidance Statement 56. A search was undertaken of the following databases within a 20km radius of the site for records of known Threatened, Schedule and Priority Fauna:

- DPaW's Threatened Fauna
- Department of the Environment's Projected Matters Search Tool.

The DPAW database returned nine Threatened Fauna species including one that is presumed extinct, seven migratory birds and two other specially protected fauna species. The database also showed one Priority 2 species and six Priority 4 species. The DotE database search returned five Endangered and Vulnerable fauna species, and 10 Invasive fauna species. No fauna species of conservation significance were identified at the site.

A complete copy of the Flora and Fauna Assessment by Terratree (2014) is provided at Appendix 1.

Summary

There are few biodiversity-related constraints that would preclude development of the site for its intended use (Talis, 2014). The site has been historically cleared and vegetation is parkland cleared and in degraded condition and there is no flora and fauna of conservation significance. There are no significant biological constraints to development on site. The only exceptions which may need further consideration include:

- Proposed disturbance activities are unlikely to significantly affect migratory species, with the possible exception of the Rainbow Bee-eater which may nest at the site between August and January
- Disturbance to mature trees may require targeted surveys to determine habitat value for Carnaby's Black Cockatoo
- Any disturbance to eucalypt woodlands is required to consider potential impacts to Carpet Python (Schedule 4), Barking Owl (Priority 2), Bush Stone-curlew (Priority 4), Western Shrike-tit (Priority 4) in consultation with DPaW.

3.2 Landform and soils

Topography

The landscape throughout the site is generally flat and slopes gently from the north-east to the south-west. The northern part of the site sits at approximately 320m AHD (Australian Height Datum) and slopes to approximately 310m AHD.

Geology

The Dumbleyung Geology series map 1:250,000 scale indicated the site is underlain by: colluvium and minor alluvium described as 'silt, sand and gravel; generally on slopes adjoining to rock and laterite outcrops' (Galt, 2014). The assessment by Galt Geotechnics, 2014, found that the site is underlain by clayey sand to sandy clay. Fill material (including uncontrolled fill) was also encountered across the site.

Soils

The generalised soil profile of at the site is described by Galt Geotechnics (2014) as:

- FILL: Clayey SAND/Silty SAND – fine to coarse grained, approximately 15% to 30% non-plastic to high plasticity fines, grey/brown/white/orange brown, locally with some fine to medium grained gravel, trace organics and rootlets, localised refuse⁴ (plastic bags), moist to dry, generally stiff to very stiff, locally present from the surface, extending to depths of between 0.4 m and 1.0 m; overlying
- Clayey SAND/Silty SAND/SAND – fine to coarse grained, approximately 3% to 20% non-plastic to low plasticity fines, locally with some fine to medium grained, rounded to sub-rounded gravel, dark grey becoming grey, clayey material is generally soft to stiff, moist to wet, trace organics and rootlets, locally present from the surface, extending to depths of between 0.5 m and 1.2 m; overlying
- Clayey SAND/Sandy CLAY – fine to coarse grained sand, low to medium plasticity clay fines, generally pale brown to orange brown mottled grey, trace to some fine grained gravel, firm to hard, moist to dry, extending to depths of between 1.0 m and the maximum depth of investigation of 2.5 m; locally overlying
- CLAY – low plasticity, white locally mottled grey and red-brown, trace fine grained sand, trace quartz, locally present from as shallow as 0.6 m, extending to the maximum depth of investigation of 2.5 m.

Geotechnical Investigation

Geotechnical investigations were conducted between 1 and 5 September 2014 by Galt Geotechnics (Appendix 1). A total of 12 test pits extending to depths between 1 m and 2.5 m below the surface level were installed by Galt. The assessment was conducted in accordance with Australian Standard AS2870-2011 *Residential Slabs and Footings*. Based on the findings, majority of the site was classified as 'Class M' provided that the site preparation recommendations are followed. Galt (2014) considers that the site is *geotechnically capable of supporting the proposed residential subdivision development*. A portion of the site formerly used an uncontrolled landfill was classified as 'Class P' and was considered not suitable for development as residential subdivision however may be

used as a landscape area (Galt, 2014). Galt also recommends that future buildings should be built on a built up pad of free draining compacted sand of at least 300 mm thickness.

The assessment also concluded that the underlying clayey material is unsuitable for onsite effluent disposal by percolation (however this can be improved with importation and placement of an adequate thickness of granular fill).

Acid Sulphate Soils

Acid sulphate soil data by the Department of Environment Regulation (DER) is not available for the site, however the CSIRO's ASRIS (2014) data show that the site is in an area with *Low Probability/Very Low Confidence* of acid sulphate soils occurring (Talis, 2014).

3.3 Contaminated sites

A portion of the site (Lot 1 Synnott Avenue) has been classified by the DER as *Potentially Contaminated – Investigation Required* due to previous owners accepting uncontrolled fill material at the site. It is understood that the material received at the site was used for levelling of the surface and was comprised predominantly of clay, silt and sand, however included various other material including bricks, concrete, timber, PVC piping, metal, tiles and asbestos containing materials (ACM) in the form of asbestos-cement sheeting, which is most likely associated with construction and demolition (C&D) waste.

Aurora Environmental (2014) conducted limited sampling for asbestos in 2013, which showed two samples taken from the site to contain ACM. Aurora proposed 0.5 m capping to be obtained from the evaporation pond construction located on Lot 1 Warren Road with an additional 0.15 m top soil and grass. Based on discussions with the Shire, it is understood that a capping layer of approximately 300 mm of excavated clay material from the lake construction was placed on top of the surface. This work was undertaken separately to the Structure Plan process. It is understood that further work on the site may be required as a result of the classification imposed by the DER.

3.4 Groundwater

The site is not located within any proclaimed groundwater area (as identified in the *Rights in Water and Irrigation Act 1914*) and as a result water may be taken from the area provided it is not from an artesian aquifer or affect downstream users through diminished flow.

Perched groundwater was identified at depths between 0.5m and 0.8m at two locations by Galt Geotechnics during the geotechnical investigations in 2014 (at the northern part of the site on Lot 3 and in the centre of the site). This could be as a result if recent rainfall in the days preceding fieldwork and the water remaining on top of the superficial clayey soils.

A review of the *Katanning Town Groundwater Program 2003 Drilling Bore Completion and Test Pumping Report* (Global Groundwater, 2004) prepared for the Shire of Katanning showed a groundwater bore previously placed within approximately 600m south-west in May 2003 which recorded groundwater depth at 1.963m bgl (Talis, 2014).

While a shallow groundwater depth may be viewed as a constraint to residential development, additional groundwater investigations would be recommended to identify quantities of fill material required to be imported to the site to raise levels for development (Talis, 2014). Based on Galt's 2014 preliminary geotechnical investigations, for drainage purposes, the buildings should be built on a built up pad of free draining compacted sand of at least 300 mm thickness.

Surface water

The Katanning Town Creek runs through the southern part of the site and flows into the Piesse Dam which is located at the south-east corner.

The creek has recently been landscaped into a constructed lake. The lake is still undergoing contouring and revegetation. Vegetated areas consisting of wetland species such as sedges, will be planted in areas to provide wetland habitat. Anecdotal evidence indicates that long-neck turtles are located within the Piesse Dam.

The surface water features of the site (the Katanning Town Creek and Piesse Dam) are an environmental constraint to residential development, however these areas are to be landscaped and developed for recreational purposes which is an appropriate use for these areas. Areas of the site identified for residential development are not constrained by surface water features. However, it should be noted that mosquito management should be considered as part of any future residential development proposals.

Development of the surrounding area will also need to give consideration to the potential for surface water flows offsite and into the waterbodies onsite. Talis recommends that appropriate management measures are put in place to control stormwater migration from the site. Any stormwater not retained onsite should be appropriately managed to ensure that any potential migration of contaminants from the developed site is minimised as far as practicable.

3.5 Bushfire hazard

A Bushfire Hazard Assessment was conducted across the site by Bushfire Prone Planning (2014). The rating on the existing vegetation within the subject site was a combination of *Low* and *Moderate*. However, it was also noted that the vegetation mapped at the moderate level within the subject site is low threat vegetation and can be excluded when defining Bushfire Attack Levels (BAL), as classified vegetation as defined in AS 3959: 2009 Section 2.2.3.2 (f) *Exclusions – Low threat vegetation and non-vegetated areas* “maintained public reserves and parklands”.

The vegetation within the site is managed and meets the requirements under AS 3959: 2009, Section 2.2.3.2 (f) *Exclusions – Low threat vegetation and non-vegetated areas* “maintained public reserves and parklands”. To the north west of Piesse Lake is an area of vegetation, classified as woodland. The north western section of Piesse Lake has been identified as having a BAL 12.5 and BAL 19 area. The area identified as BAL 12.5 and BAL 19 can be excluded if the identified vegetation to the north west is managed.

External to Piesse Lake, the Bushfire Hazard is a combination of *Low* and *Moderate* and the BAL stage can be managed to achieve a low threat vegetation classification as defined in AS 3959: 2009 Section 2.2.3.2 (f) *Exclusions – Low threat vegetation and non-vegetated areas* “nature strip”.

A complete copy of the Bushfire Hazard Assessment is at Appendix 3.

3.6 Heritage

Aboriginal Heritage

A search for relevant Aboriginal Heritage was conducted by Talis (2014) using the DAA online *Aboriginal Heritage Inquiry System* which indicated that the site was not list as a *Registered Aboriginal Site* or *Survey Area*. The lower portion of the site was listed as *Other Heritage Places* which was associated with the Katanning Town Creek (ID 22816), which also extended offsite.

3.7 European Heritage

An online search of the Australian Government’s Department of Environment Heritage Database by Talis (2014) found that no recorded Australian heritage listed sites at the site or within the vicinity of the site (<500m).

An online search of the Heritage Council WA database by Talis (2014) using the *inHerit* portal found that no recorded sites of European heritage from the State register occur at the site.

3.8 Buffers

Proposed and existing land uses within Piesse Lake are identified as 'sensitive land uses'. No industrial land is located adjoining or nearby the site. Therefore, appropriate buffers and separation distances are already in place between the site and industrial land uses.

In terms of buffers and separation distances, there are no constraints on the proposed land use. However, it should be noted that any future investigations will need to refer to the updated EPA Guidance Statement No. 3 and WAPC State Planning Policies on separation distances if and as required

3.9 Servicing and infrastructure

A review of services and infrastructure was undertaken by Shawmac Consulting Engineers in 2014. A complete copy of the report is provided at Appendix 5.

Electrical

The Katanning town site currently has 5-10MVA capacity remaining in terms of power availability which will drop to <5MVA in 2019. This allows for the development of approximately 1,000 residential dwellings from 2019 onwards on a first come, first serve basis, the development capacity substantially reduces if industrial and commercial lots are developed. Once the power capacity is reached, significant works would be required to source power from other areas to facilitate future development. It is expected that the power availability be a major constraint to development within the town site.

Water and Wastewater

Lot 79 and 3 has not been included in the Water Corporations water planning and therefore a reticulated potable water supply is not immediately available. However, it is likely it can be served with potentially some existing network improvements to meet projected demands. The proponent should arrange for water infrastructure planning to be undertaken. A formal submission by the proponent should be made in a timely manner considering the proposed development schedule and the infrastructure planning review.

Wastewater

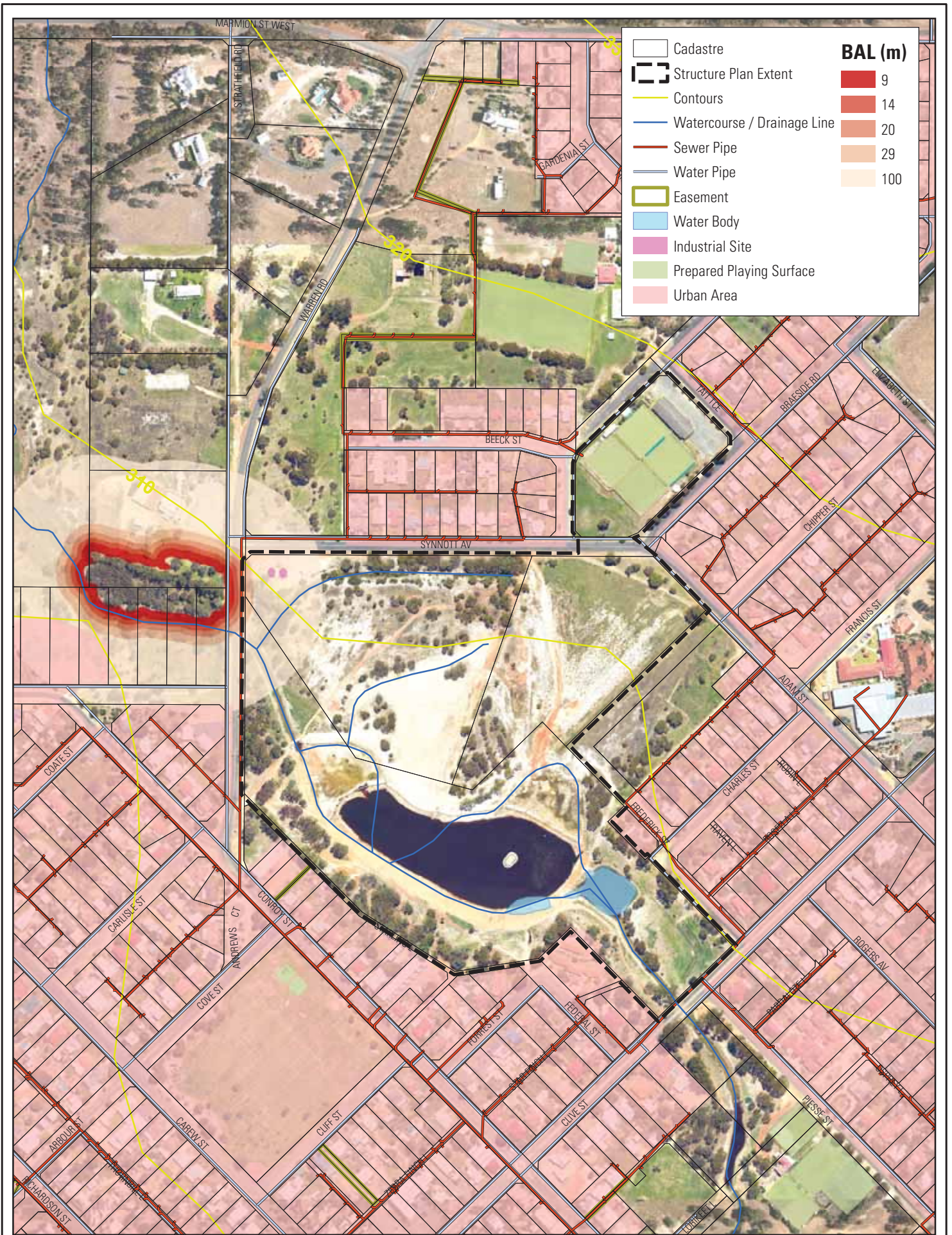
Lot 79 has not been included in the Water Corporations water infrastructure planning and therefore a reticulated wastewater connection is not immediately available. The proponent should arrange for wastewater infrastructure planning to be undertaken. A formal submission by the proponent should be made in a timely manner considering the proposed development schedule and the infrastructure planning review. The geotechnical assessment also concluded that the underlying clayey material is unsuitable for onsite effluent disposal by percolation (however this can be improved with importation and placement of an adequate thickness of granular fill) (Galt Geotechnics, 2014).

Gas

There is no gas reticulation available within the town site.

Communications

Phone services and ADSL are provided in the town. At present, NBN rollout has not commenced in the town site however will be implemented in future. Optus maintains a fibre optic network through much of the town which may provide broadband services. Telstra would be required to service any future development in the absence of NBN or interest from other communications providers.



4 Land use and subdivision requirements

The Piesse Lake Structure Plan aims to facilitate a medium density residential land development adjacent to a unique community recreation area east of the CBD, which will assist in the attraction and retention of population.

4.1 Land use

Land uses proposed within the Structure Plan area include:

- Medium-density residential land.
- Aged and Independent Persons development
- Public Open Space
- Associated Roads.

This Structure Plan is the first prepared for the site and does not supersede any earlier planning work.

Table 4.1 – Structure Plan Summary Table

Item	Data
Total area covered by the structure plan	17.70 ha
Area of each land use proposed:	
• Residential	5.07ha
• Aged and Dependent Persons	1.59ha
• Public Open Space	11.04ha
Total estimated lot yield	50 Residential, including grouped/multiple dwelling sites

Note: Table is repeated in Executive Summary

4.2 Public open space

One of the key objectives of this Structure Plan is to provide guidance to Council regarding the development and management of the Piesse Lake dam and lake extension, drainage function and enhancement of the surrounding environment, whilst serving as a community focal place. Planning of the open space involves consideration of its Role and function, development and amenity.

Parks and Recreation comprises the largest land use component of this Structure Plan area which is predominately located on Lot 1 Warren Street Katanning and Lot 1 Synott Avenue Katanning. The extent of the Public Open Space area is 11.04 hectares.

Role and Function

WAPC Liveable Neighbourhoods advocates provision of a hierarchy of public park lands servicing residents. Although a formal public open space audit and the establishment of a parkland hierarchy has not formally been established for the Katanning town site, Piesse Lake may be considered as having a district function based on criteria set out in WAPC liveable neighbourhoods, and includes the following features:

- The total combined area of the Parks and Recreation area is approximately 11 hectares (albeit a large portion of this has multi - use function with the integration of a water management function).
- A large portion of the town's residential area is located within 1km of the park.
- The park has road frontage and access from six local roads.

A District Park is generally considered applicable in the case where there are extensive playing fields and the site is centrally located. However, given the extent of planned investment to enhance environmental and landscape features not otherwise available in Katanning, this parkland may function as a district or "destination park" for tourists and residents outside the immediate walkable catchment. Therefore, it is recommended that future development stages of the parkland reflect this function in providing adequate amenities such as parking and amenities (i.e. toilets, bbqs, lighting etc.).

The park also directly abuts existing low density and proposed medium density housing and therefore will also provide a local park function to its neighbours. The detailed design of the park will need to provide small areas for local children's play at a safe distance to the lake and dam.

Development and Amenity

The key planning considerations for development of the park are included in Part1 Implementation Section 1.4 Subdivision and Development requirements for public open space

4.3 Residential

Piesse Lake is identified in the Local Planning Strategy and Growth Plan as one of the key infill areas within the town site "to provide for a mix of medium density housing and potential aged accommodation around a high amenity lake".

Traditionally the take up rate for infill development within rural towns can be limited and slow as the highest demand is generally for traditional single residential and low density lifestyle lots. In preparation of the Local Planning Strategy practical yields from infill development included the Piesse Lake Structure Plan area as one of the areas identified to ensure that sufficient land was available to meet projected demand. An average of 30 Lots and Dwellings per site hectare was applied to estimate yield for infill areas in Katanning.

The Structure Plan provides opportunity for the Shire to target these residential infill targets by providing a variety of residential uses and densities.

4.4 Movement networks

A Transport Assessment has been undertaken based on an indicative lot layout promoting the most intensive likely use of the site.

For the purposes of the Transport Assessment the lot layout maximised the number of smaller lots, provided multiple access points to the existing road network and, where appropriate, incorporated new internal subdivisional roads. This approach was thought to represent the most intense development of the site in regards to traffic movement and thus would test the impact of residential development on the existing road network.

The predicted flow within the site has been calculated as 1 152 vehicles per day. On this basis, the Transport Assessment has concluded that the traffic impact of the site will have minimum impact on the function of the adjacent network.

The final layout of the Piesse Lake Public Open Space and Botanical Garden has not been finalised, and detailed consideration has not yet been given to parking or access arrangements to those areas at this stage. It was further noted that connection of the site to the town site footpath and cycle path network would be required. Section 1.4 Subdivision and Development requirements include the provision for "Preparation of a detailed Landscaping and Management Plan for the Piesse Lake and adjoining Public Open Space" which will include detailed planning for car parking and paths.

4.5 Water management

A Local Water Management Strategy (LWMS) has been prepared to support the Structure Plan. The objective of the LWMS is to ensure that the site achieves best practice water management outcomes through strategies that manage the total water cycle in a sustainable manner.

For the purposes of the LWMS the lot layout maximised the number of smaller lots, provided multiple access points to the existing road network and, where appropriate, incorporated new internal subdivisional roads. This approach was thought to represent the most intense development of the site in regards to water management and would test the impact of the residential development on the existing drainage network.

Water supply

Potable water should be supplied from an extension of the existing mains.

Wastewater

Wastewater should be connected via an extension to the existing mains.

Stormwater management

A basin system is required at the interface with Piesse Lake. Runoff will be detained to discharge at predeveloped flow rates to Piesse Lake.

All floor levels will need to be set a minimum of 500mm above the 100-year water levels of the creek.

In regards to groundwater, appropriate earthworks and excavation methods are required to minimise impact on groundwater. There is no requirement to lower groundwater levels to facilitate development.

4.6 Education facilities

No education facilities are proposed as part of the Structure Plan. There are existing facilities within the town site.

4.7 Activity centres and employment

The site is located close to the Katanning Town Centre which is the principal activity centre that corresponds to the Structure Plan area, however is not included within the area. The Town Centre and adjacent hospital provide the employment focus for the structure plan area. Aside from the broader recreational, tourism and possibly community centre within the future aged/independent housing site, no additional significant activity centres are proposed as part of the Structure Plan.

4.8 Infrastructure coordination, servicing and staging

As outlined in Section 3.9, electrical, water and wastewater services are available to the area, however further planning and upgrades will likely be required. A servicing and infrastructure report will be required to design and implement required services as part of future subdivision.

4.9 Developer contributions

The entire Structure Plan area is owned by the Shire of Katanning. As such, there is no Developer Contribution Plan proposed as part of this Structure Plan. It is envisaged that the Shire will liaise with the ultimate developer of the site in regard to the provision of services.

4.10 Implementation/other requirements

Once WAPC endorsed the structure plan will be a document to which planning decision-makers for to give 'due regard' to when making decisions on the subdivision and development of land within the structure plan area.

Structure plans do not have the force and effect of a scheme, unless the zones, reserves, density codes and provisions they include are normalised into a scheme.

When determining an application within a structure plan area, in giving due regard to an approved structure plan, a decision-maker has an obligation to give consideration to the objectives, intent, and information contained within the structure plan and give consideration to the objectives and requirements of the scheme zones proposed by the structure plan.

5 Appendices

Technical Appendices Index

Appendix no.	Document title
1	Structure Planning – Environmental Investigations (AVAILABLE FROM SHIRE OFFICE)
2	Local Water Management Strategy Rev C (AVAILABLE FROM SHIRE OFFICE)
3	Bushfire Hazard Assessment (AVAILABLE FROM SHIRE OFFICE)
4	Transport Assessment (AVAILABLE FROM SHIRE OFFICE)
5	Servicing and Infrastructure (AVAILABLE FROM SHIRE OFFICE)



landinsights
PLANNING DESIGN ENVIRONMENT

PO Box 289, Mt Lawley WA 6929
Phone: (08) 9271 8506 | Email: admin@landinsights.com.au | Web: landinsights.com.au