

WARRENUP / WALMSLEY LOCAL STRUCTURE PLAN

ALB/2016/No.5

This Structure Plan is prepared under the provisions of the City of Albany Local Planning Scheme No 1.

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

15 August 2018

Signed for and on behalf of the Western Australian Planning Commission



an officer of 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

..... 15 August 2018 Date

..... 15 August 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
City of Albany	10/11/15, 8/12/15, 18/03/16	Meetings
Department of Education		Emails
Department of Planning	10/11/15, 8/12/15, 18/03/16	Meetings
Water Corporation		Email
Department of Water		Email/Phone Call
Western Power		Email
Main Roads WA	06/08/15, 18/03/16	Meetings
Telstra		Email
Atco Gas		Email

EXECUTIVE SUMMARY

The Warrenup/Walmsley Local Structure Plan (WWLSP) area (specifically relating to Lots 6 and 271 Chester Pass Road, Warrenup, Lots 5498 and 4925 Terry Road, Walmsley and Lots 1 and 2 Chester Pass Road, Walmsley) brings together the four main land parcels which form the development front for the northern extension of the Albany urban area. Lots 6 and 271 are located on the western side of Chester Pass Road. Lots 5498 and 4925 are located on the eastern side. Two small incidental lots being Lots 1 and 2 on the corner of Terry Road and Chester Pass Road are also included.

All the properties are zoned 'Future Urban' and the proposed land use within the LSP is predominantly residential and public open space.

The Summary Table below provides the key statistics relating to the LSP.

Item	Data		Structure Plan Ref. (Section No.)
Total Area covered by the Structure Plan	116.2068 hectares		Part One 1.0 Table 1
Land use proposed	Area (ha)	Lot Yield	
Residential	93.08	1164	Part Two 3.3
Road Widenings	1.2		Part Two 3.4.1
Public Open Space	18.3		Part Two 2.6 & 3.2
Foreshore Reserve	3.5		Part Two 2.6 & 3.2
Total Estimated Lot Yield		1164	Part One 3.0 Part One 4.8 & Part Two 3.3 Part One 4.8 & Part Two 3.3 Part Two 3.6 Part Two 3.6
Total Estimated Number of dwellings		1164	
Estimated residential site density	12.6		
Estimated Population	3,259	(2.8 ppdw)	
Number of High Schools	Nil		
Number Primary Schools	Nil		

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PART ONE - IMPLEMENTATION

1.0 STRUCTURE PLAN AREA

The Warrenup/Walmsley Local Structure Plan (WWLSP) incorporates Lots 6 and 271 Chester Pass Road on the western side of Chester Pass Road and Lots 1, 2 and 5498 Chester Pass Road on the eastern side of the road and Lot 4925 Terry Road. Refer Figure 1 below.

The Structure Plan map is shown at Figure 2.

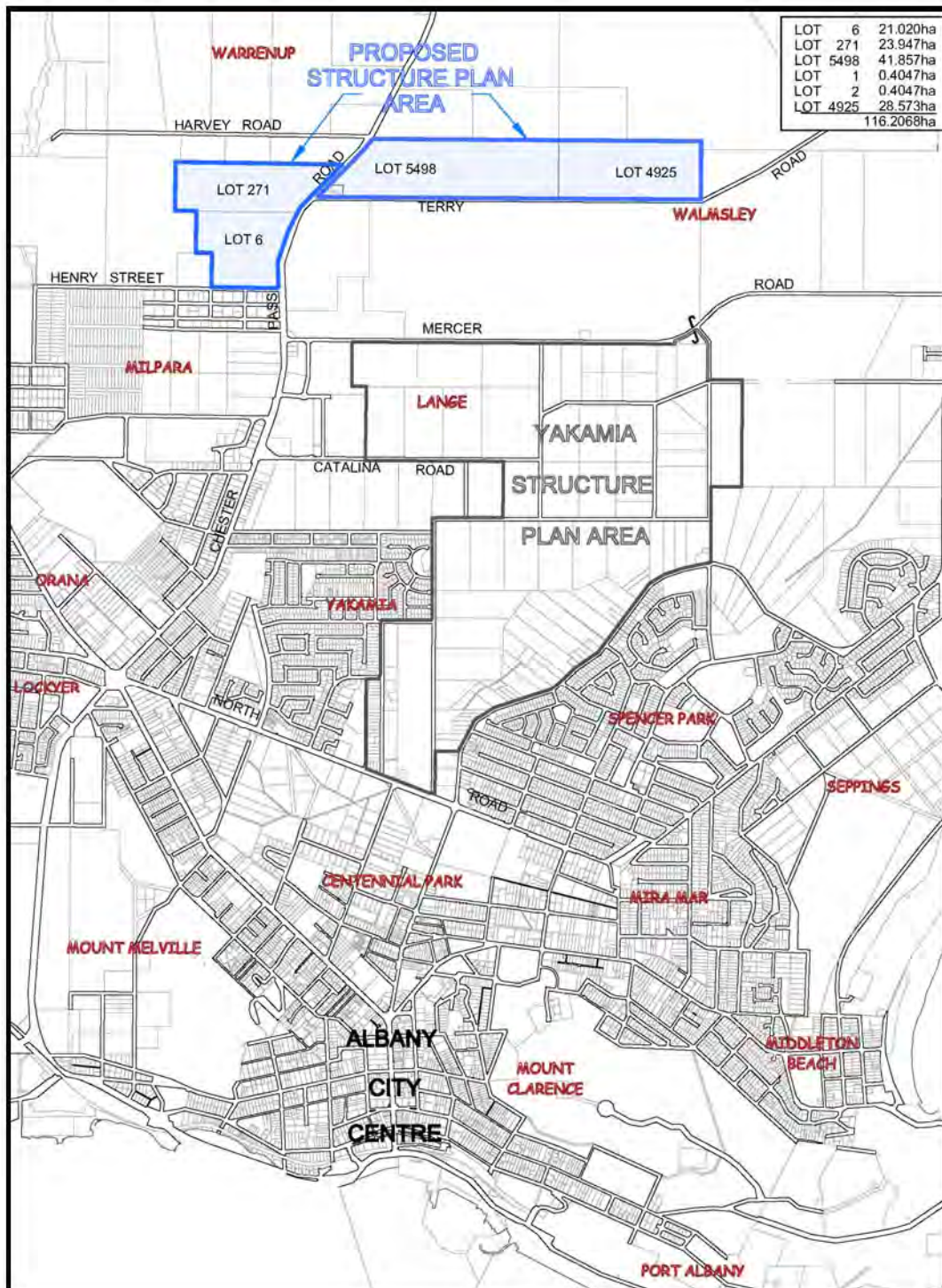


Figure 1: Locality Plan

Together these parcels of land comprise approximately 116.2068 hectares (ha) of land. Table 1 below provides the detailed land description of each lot.

Table 1: Land Description

Land Description		Plan/Diag	Vol	Folio	Area	Street Address	Owner
Lot 6	Henry St/Chester Pass Road	D 87311	2012	640	21.020ha	275 Chester Pass Road Warrenup	T & T Gorman Pty Ltd – 275 Chester Pass Road Warrenup WA 6330
Lot 271	Chester Pass Road	P 248837	1454	731	23.947ha	315 Chester Pass Road, Warrenup	A & B D'Addario – PO Box 860 Albany DC WA 6332
Lot 5498	Chester Pass Road/Terry Road	P 202474	1710	778	41.8571ha	87 Terry Road, Walmsley	GH, SM Davies, PE List and Cammit Pty Ltd – C/- Wellington & Reeves PO Box 5242 Albany, PO WA 6332
Lot 1	Chester Pass Road/Terry Road	D 38604	1905	8461	4047m ²	308 Chester Pass Road, Walmsley	RM Grayson PO Box 750 Albany DC WA 6331
Lot 2	Chester Pass Road/Terry Road	D 38604	283	14A	4047m ²	314 Chester Pass Road, Walmsley	R & PA Weir – 21 William Street Yakamia WA 6330
Lot 4925	Terry Road	P 160331	202	143A	28.5733ha	159 Terry Road, Walmsley	LE & WD Spinks – PO Box 988 Albany DC WA 6331
					<u>116.2068ha</u>		

2.0 OPERATION

The WWLSP comes into effect on the date that it is endorsed by the Western Australian Planning Commission (WAPC).

3.0 STAGING

With a total of over 1,164 potential lots that could be created within the WWLSP, it is likely that development will need to be staged over at least 15 to 20 years. Given the number of other development areas within Albany, staging will need to be flexible and capable of adapting to competing development fronts and the varying attractivity and cost of developing these areas.

The construction of the proposed Waste Water Pumping Station on Terry Road within Lot 5498 is a key piece of infrastructure which will be required to proceed with the first stage of development in the structure plan. This will facilitate development within Lots 6, 271 and portion of Lot 5498. Landowner/developer intent and cost sharing agreements will dictate which area(s) proceed first.

As Lot 271 is not permitted direct access to Chester Pass Road, it will need to obtain access via either Lot 6 to the south or Lot 1 to the North. The eastern portion of Lot 5498, and all of Lot 4925 will be served by a waste water pumping station in the north eastern corner of Lot 4925. This will connect through to the Yakamia Structure Plan and a waste water pumping station located on the corner of Mason and Curtiss Road. Because of this and the constraints associated with the north eastern precinct of the Yakamia Structure Plan, development of these eastern areas of the Walmsley Structure Plan will only occur in the latter stages of the plan unless alternative arrangements are made in relation to connection to scheme sewer.

4.0 SUBDIVISION AND DEVELOPMENT REQUIREMENTS

4.1 Subdivision and development proposals are to be generally in accordance with the designations and provisions of the structure plan.

4.2 Within areas identified as residential on structure plan map;

- subdivision proposals are to be in accordance with the R Code designations on the structure plan map.
- Subdivision design is to be generally in accordance with the WAPC's Livable Neighbourhoods policy.
- subdivision design is to appropriately interface/respond to land in adjoining structure plan areas.
- development proposals are to be in accordance with clause 5.5.3 of the Local Planning Scheme, or, upon rezoning to Residential, consistent with land use permissibilities and development requirements of the Residential zone in the local planning scheme and the R Code designations on the structure plan map.

4.3 The decision maker may use their discretion in considering subdivision of Lots 4925, 5498, 6 and 271, existing at the time the structure plan was endorsed, to excise an existing dwelling and its curtilage, and retain the current standard of utility services and roads, provided;

- 4.3.1 The subdivision creates one lot of the smallest reasonable size to contain the single house, its curtilage, its onsite effluent disposal requirements; and one balance lot; and
- 4.3.2 the balance lot receives a notification, covenant, or other suitable instrument confirming that any further subdivision or development of the lot will require full provision of utility services to the urban residential standards outlined above.
- 4.4 Within areas identified as Public Parkland on structure plan map;
- 4.4.1 Areas are to be accurately defined at the time of rezoning, subdivision or development (as appropriate) and ceded to the Crown for its intended purpose (foreshore reserve, public open space) at the time of subdivision or development, free of cost and without payment of compensation by the Crown.
- 4.4.2 no development will be permitted other than for conservation, recreation or stormwater management or incidental purposes.
- 4.5 Applications for subdivision/development to be accompanied by
- BAL contour map/assessment in accordance with SPP 3.7 *Planning in Bushfire Prone Areas*.
 - An Urban Water Management Plan endorsed by the Department of Water and Environment Regulation (subdivision only).
 - For lots within 100m of Chester Pass Road, a Detailed Noise Assessment, to be approved and implemented to the satisfaction of the Western Australian Planning Commission. The Detailed Noise Assessment should outline acceptable noise mitigation techniques (where deemed applicable) in accordance with the requirements of State Planning Policy 5.4 - Road and Rail Noise, and should include the need for a Local Development Plan to demonstrate:
 - a) Quiet house design requirements
 - b) Building arrangement

4.6 Utility Service Requirements

All new lots, with the exception of subdivision under 4.3 above, and development within the structure plan area shall be provided with reticulated water and sewerage, underground electricity connections and roads to an urban standard.

4.7 Chester Pass Road

4.7.1 At Subdivision stage, lots facing Chester Pass Road are to include ceding of 10m road reserve as identified on structure plan map.

4.7.2 At subdivision and development, Main Roads may request notification on title of new lots created advising of potential impacts of noise from Chester Pass Road. The notification is to state as follows:

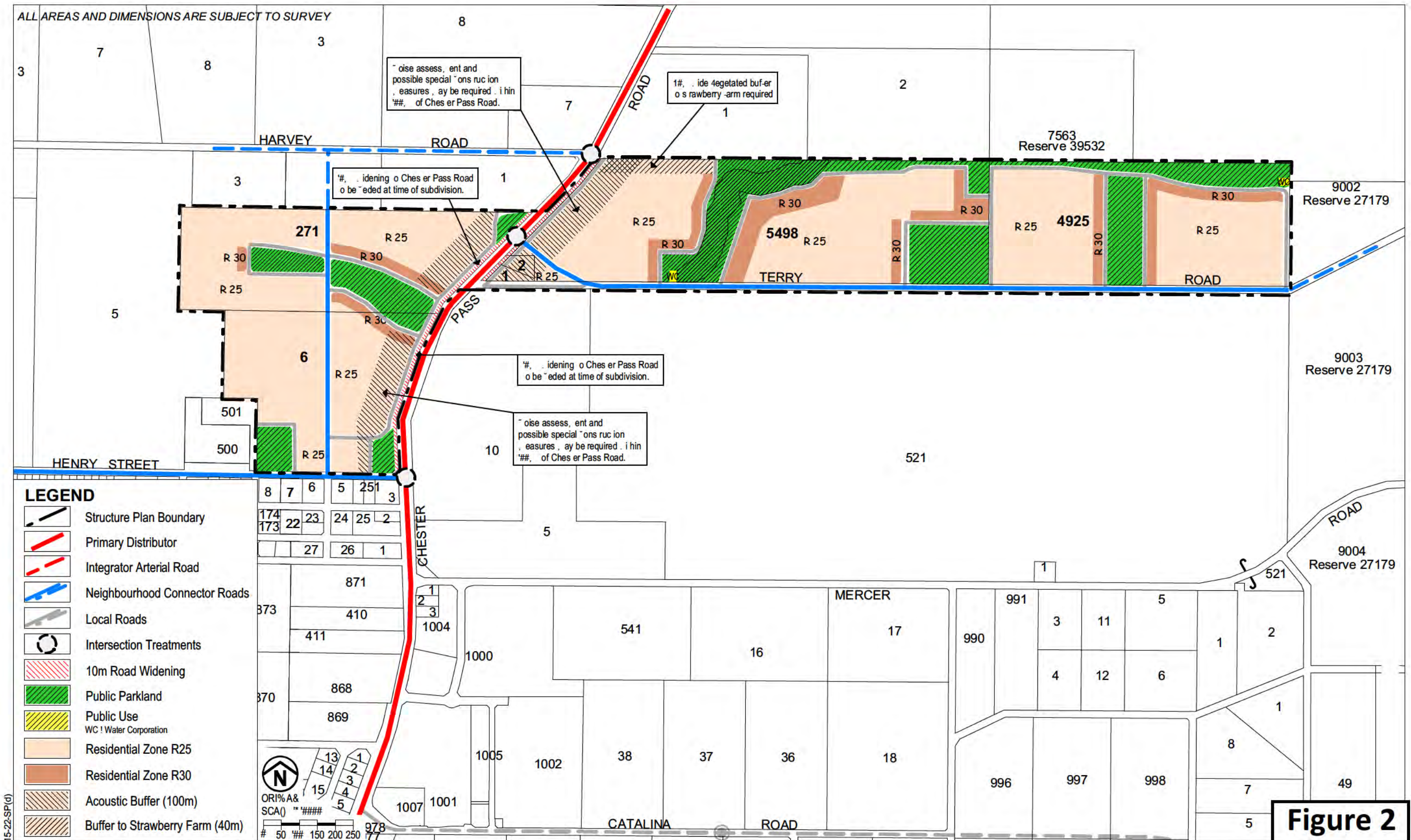
The lot is situated in the vicinity of a transport corridor and is currently affected, or may in the future be affected by, transport noise.

4.7.3 Main Roads may request a restrictive covenant on title on new lots created restricting access to Chester Pass Road.

4.8 Residential Density

The structure plan provides for medium density with R25 identified for most of the site and higher density adjacent to POS. Density codes are identified on the structure plan map.

Refer Figure 2 overleaf.



4.9 Public Open Space

An integrated network of Public Open Space (POS) is proposed which provides access to a range of areas suitable for sporting activities, nature space (associated with remnant vegetation areas and creek lines) and recreational space associated with playgrounds, picnic/barbecue areas, skate parks etc.

Public open space identified for Warrenup/Walmsley in the LSP includes:

- Three linear parks associated with seasonal drainage lines.
- Two nature space areas incorporating remnant vegetation.
- Six neighbourhood/local parks, some with a drainage function.

At the time of subdivision, developers shall provide an open space schedule detailing the amount, distribution and staging of the delivery of public open space, in accordance with the structure plan

Western Australian Planning Commission policy for urban development requires provision of a minimum 10 per cent of gross subdividable land area for public open space. Public open space/parkland are designated as Public Parkland on the structure plan map. This land is to be ceded at subdivision. Where land is to be subdivided and no Public Parkland is designated, the developer is to provide equivalent cash in lieu, which may be utilised by Council to reimburse developers for the ceded portion in excess of 10 per cent of their gross subdividable area.

5.0 LOCAL DEVELOPMENT PLANS

Local Development plans may be required to support applications for subdivision and development relating to the following;

- i. The development of medium density housing on the steeply sloping land to the east of the proposed foreshore reserve.
- ii. Lots with access provided by a rear laneway.
- iii. Lots within 100 metres of a bush fire hazard as identified in the Bush Fire Management Plan.

PART TWO – EXPLANATORY SECTION

1.0 PLANNING BACKGROUND

1.1 Introduction and Purpose

The Warrenup/Walmsley localities are located on the northern periphery of the Albany urban area and straddle Chester Pass Road which is the main arterial road serving the agricultural hinterland to the north and north east. The Albany Local Planning Strategy (ALPS) designates the land 'Future Urban' and the land has already been zoned 'Future Urban' under the provisions of the City of Albany's Local Planning Scheme No 1 (LPSNo1).

In order to proceed to the subdivision and development of the land, it is necessary to prepare a 'Local Structure Plan' in accordance with the 'Planning & Development Regulations 2015'.

The purpose of this report is to provide the background information to support the preparation of the Warrenup/Walmsley Local Structure Plan (WWLSP).

1.2 Land Description

1.2.1 Location

The subject land is located approximately 4.5 kilometres north of the Albany CBD. Refer Figure 3 below.

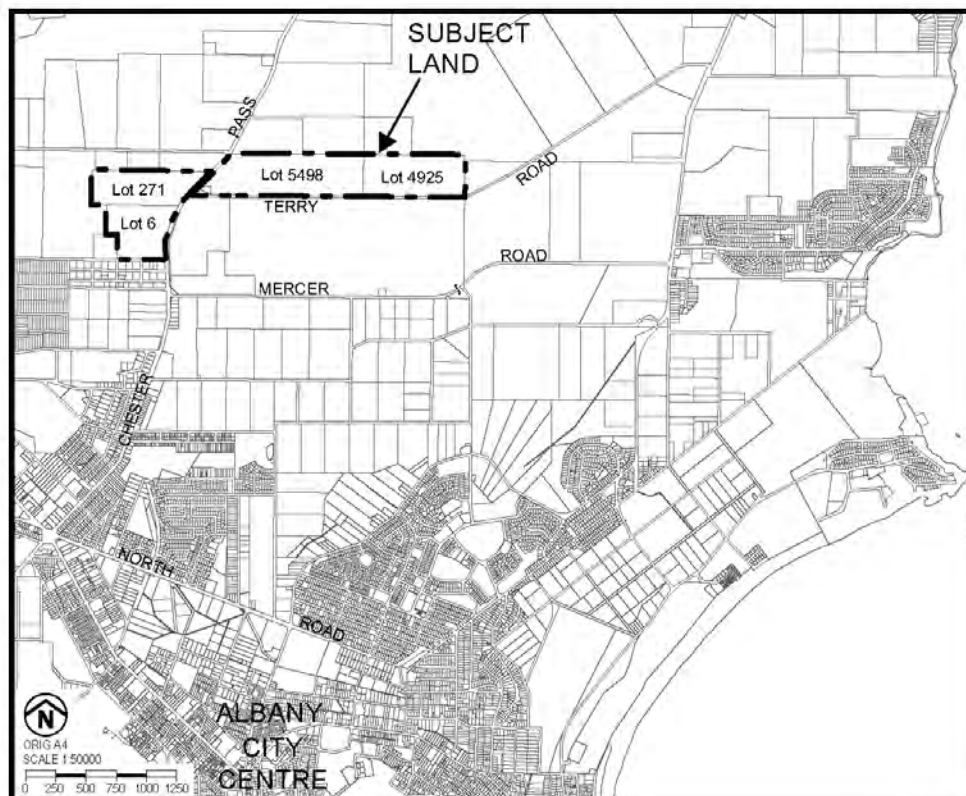


Figure 3: Location Plan

Lots 6 & 271 are located on the west side of Chester Pass Road between Henry Street and Harvey Street. Lots 1, 2, 5499 & 4925 are located on the eastern side of Chester Pass Road and northern side of Terry Road.

1.2.2 Area and Land Use

The overall area of the Structure Plan is approximately 116.2068ha and Table 2 below provides the individual Lot areas.

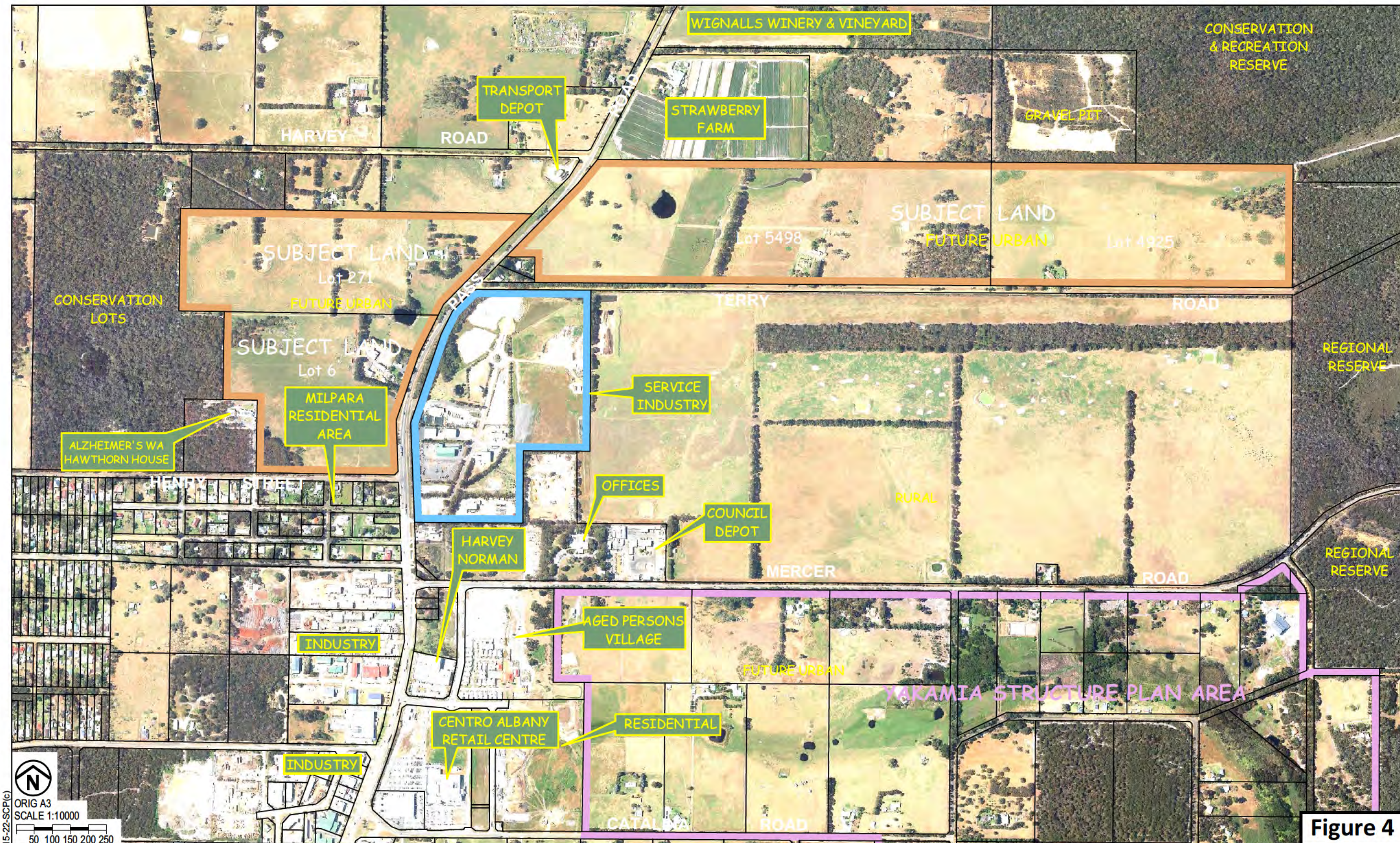
Table 2: Lot Areas

Land Description		Area
Lot 6	Henry St/Chester Pass Road	21.020 ha
Lot 271	Chester Pass Road	23.947 ha
Lot 5498	Chester Pass Road/Terry Road	41.8571 ha
Lot 1	Chester Pass Road/Terry Road	0.4047 ha
Lot 2	Chester Pass Road/Terry Road	0.4047 ha
		116.2068 ha

Apart from Lots 1 and 2 on the corner of Terry Road and Chester Pass Road, which are just over 4000m² in area, all the other lots are in excess of 20ha. This compares with the smaller and more fragmented land ownership to the south of Mercer Road and particularly within the Yakamia Structure Plan area.

The larger lots have predominantly been cleared and are used to agist stock. Existing development is restricted to a single residence and associated outbuildings. Lot 6 has a number of sheds associated with the residence which are used for a variety of purposes and fall within the 'Rural Industry' land use classification.

A variety of land uses surround the structure plan area. Refer Figure 4 Site Context Plan overleaf. To the south of Lot 6 is the Milpara residential area consisting of large unsewered lots ranging in size from 2000m² to 4000m².



To the west is a large area (39ha) of privately owned remnant vegetation. While this area is designated as 'Future Urban' by ALPS, control of the clearing of the vegetation has resulted in development being restricted to the creation of two conservation lots which will result in the majority of the vegetation being retained. In the southeastern corner of this area is a 3.6ha reserve, a portion of which has been developed as an Alzheimers community centre. The balance is remnant vegetation.

To the north of Lot 271 are two smaller rural smallholding lots of 4ha, one of which is predominantly uncleared and used as a 'rural retreat' and the other which is predominantly cleared and used as a small hobby farm. A third 7ha lot on the corner of Henry Street and Chester Pass Road has been cleared and is used as a 'rural industry' (Bevans Transport Depot).

On the eastern side of Chester Pass Road, land to the south of Terry Road and fronting Chester Pass Road is used as a service industrial area with lots being leased for a variety of uses. Of the proposed 23 leases, approximately 10 are currently developed.

To the south of the service industrial area is the site of the former Shire of Albany offices, which is being used for offices, and the City's depot and dog pound. On the corner of Mercer Road and Chester Pass Road is the Albany Business Centre.

Immediately to the north of Lot 5498 and Lot 4925 is a commercial strawberry farm fronting Chester Pass Road, a partially cleared 16ha rural smallholding, a gravel extraction area located in a 12ha reserve and to the east of that an extensive area of remnant vegetation within a Local Reserve. To the east of Lot 4925 are three reserves containing remnant vegetation.

1.2.3 Legal Description and Ownership

Table 3 below provides the legal description and ownership details for the properties contained within the Structure Plan area.

Table 3: Legal Description and Ownership

Land Description		Plan/Diag	Vol	Folio	Area	Street Address	Owner
Lot 6	Henry St/Chester Pass Road	D 87311	2012	640	21.020ha	275 Chester Pass Road Warrenup	T & T Gorman Pty Ltd – 275 Chester Pass Road Warrenup WA 6330
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Lot 1	Chester Pass Road/Terry Road	D 38604	1905	8461	4047m²	308 Chester Pass Road, Walmsley	RM Grayson PO Box 750 Albany DC WA 6331
Lot 2	Chester Pass Road/Terry Road	D 38604	283	14A	4047m²	314 Chester Pass Road, Walmsley	R & PA Weir – 21 William Street Yakamia WA 6330
Lot 4925	Terry Road	P 160331	202	143A	28.5733ha	159 Terry Road, Walmsley	LE & WD Spinks – PO Box 988 Albany DC WA 6331
116.2068ha							

1.3 Planning Framework

1.3.1 Zoning and Reservations

The Structure Plan area is zoned 'Future Urban'. Refer Figure 5 below.

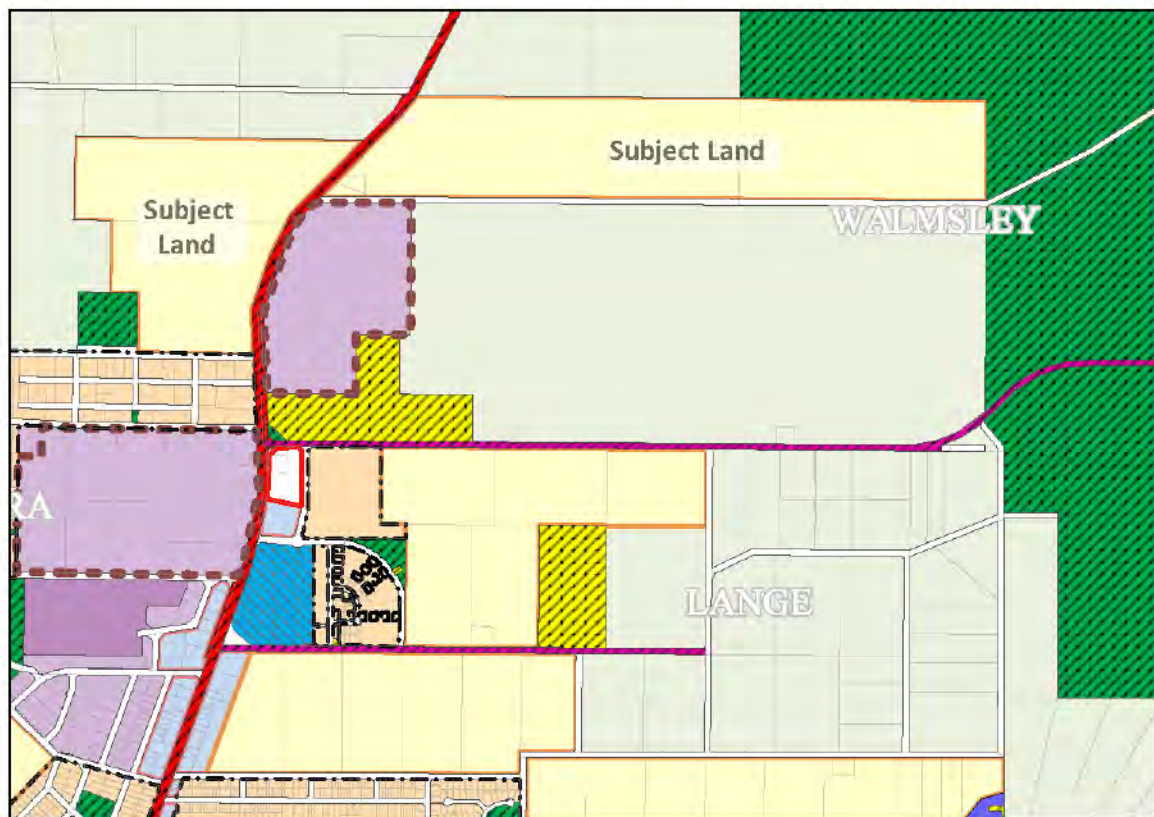


Figure 5: Extract of Zoning Map.

1.3.2 Regional & Sub-Regional Structure Plan

There are no regional or sub-regional structure plans that apply to the LSP area.

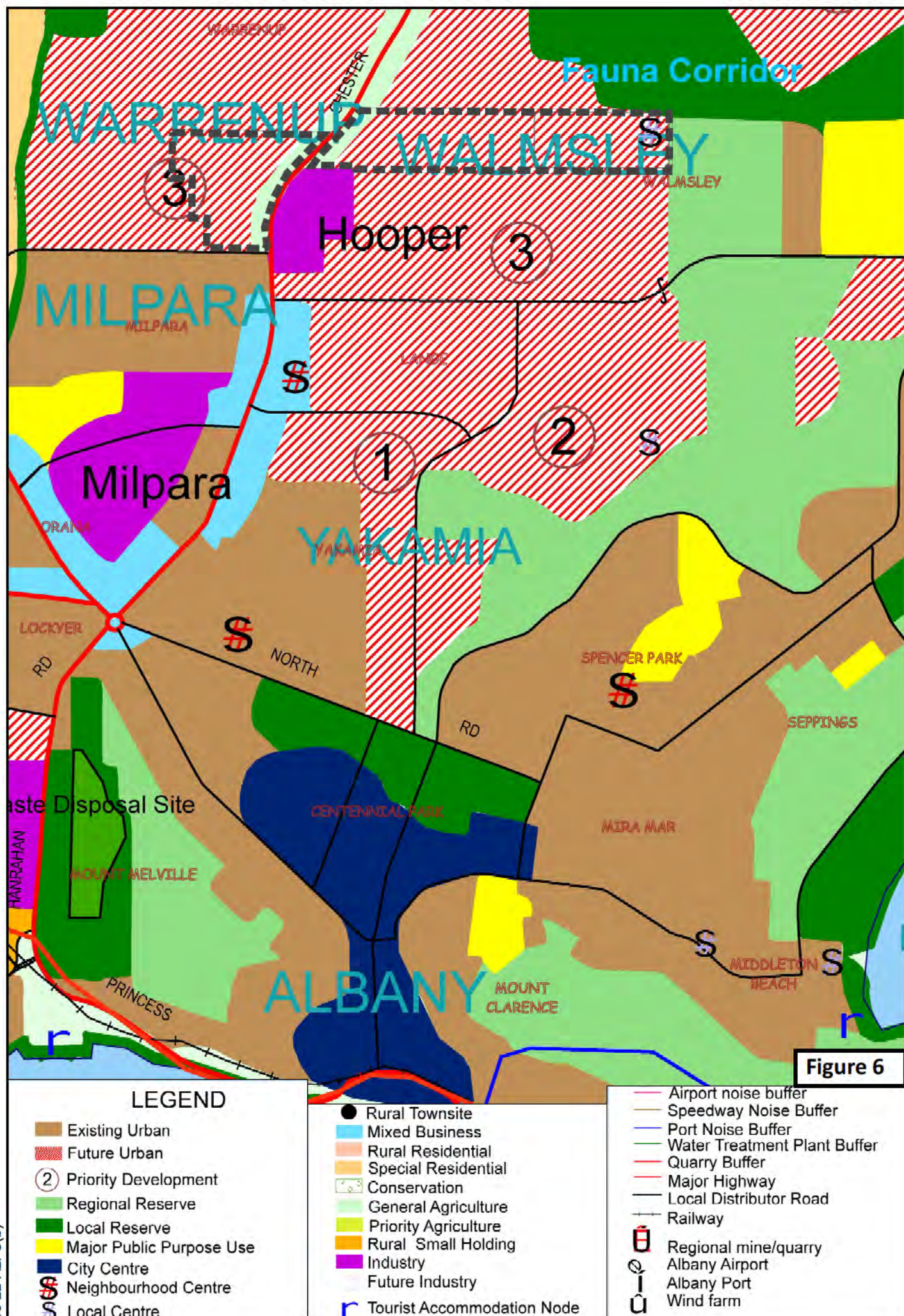
1.3.3 Planning Strategies

The Albany Local Planning Strategy was endorsed by the WAPC on the 15 June 2010 and identified the subject land as being suitable for 'Future Urban' development. Figure 6 overleaf refers. It was given a 'Priority 3' designation which is described in the Strategy as follows:

"Priority 3 areas are logical extensions of the Priority 2 areas locations and/or existing urban areas and include parts of McKail, Gledhow, Warrenup, Walmsley and Big Grove. Priority 3 areas are expected to be rezoned with local structure planning undertaken in the near future. These areas are capable of producing lots within the medium term."

In addition to the designation of the land as 'Future Urban' the Strategy also sets out a number of strategic objectives and actions which include:

- Facilitate and manage sustainable settlement growth for the urban area in the City of Albany.
- Support the consolidation of serviced urban areas and facilitate fully serviced incremental development nodes.
- Support urban infill development based on compatibility of land uses and infrastructure capacity.
- Protect areas designated as future fully serviced urban areas from inappropriate land uses, subdivision and development.
- To provide for a range of easily accessible community services and facilities.
- Facilitate a diversity of housing to align with the future population and social needs.



1.3.4 Planning Policies

Relevant State Planning Policies (SPPs) include:

SPP1 State Planning Framework, which establishes statewide key land use planning principles and informs the Commission, Local Government and others involved in the planning process in relation to sustainable land use and development across the State. It is designed to ensure there is coordination across all spheres of planning.

SPP2.5 Rural and land Use Planning. SPP2.5 in particular provides policy direction for managing areas where land uses are transitioning from rural to urban uses. Policy guidance is also provided for horticultural uses and associated buffers.

SPP3 Urban Growth and Settlement. This policy sets out the key principles and planning considerations that apply to planning for urban growth and expansion of settlements in the State.

SPP3.7 Planning for Bush Fire Prone Areas. SPP3.7 directs how bushfire risk management should be incorporated within the proposed structure plan.

1.3.5 Other Approvals and Decisions

A decision which does impact on this structure plan is the designation of approximately 40 hectares of the Warrenup locality as two conservation lots immediately to the west of Lots 6 and 271 Chester Pass Road. This will significantly reduce the population growth of this locality with implications regarding provision of services such as the need for a school within the Warrenup locality.

1.3.6 Pre-lodgement Consultation

This LSP has been prepared following meetings and discussions with key government agencies such as the City of Albany, Department of Planning, Main Roads, Water Corporation, Department of Water and Department of Education.

The decision to designate the area for 'Future Urban' development has previously formed part of ALPS which was advertised for public comment and referred to all relevant government agencies. The land was then subsequently rezoned from the 'General Rural' zone to 'Future Urban' zone. This again provided for public comment and feedback from government agencies.

2.0 SITE CONDITIONS AND CONSTRAINTS

2.1 Biodiversity and natural area assets

The majority of the LSP area has been cleared with only small remnant pockets of degraded vegetation. Consequently there is relatively little biodiversity and natural assets. There are no Ramsar listed sites, Wetlands of National Importance or Declared Rare or Priority species of vegetation. Nevertheless, the remaining vegetation does have value and it is proposed to retain these areas where possible. There is also the opportunity to integrate some of them with proposed green corridors or 'living streams' with connection to significant areas of remnant vegetation which abut the LSP area.

2.2 Landform and Soils

The landform and soils of the LSP area consist of a gently undulating lateritic plateau which falls away to colluvial slopes. A distinct scarp dropping up to ten metres runs NE/SW across Lot 5498.

Soils consist of sands and laterite on elongate crests, sandy yellow duplex soils on slopes and deep sands on the narrow swampy floor.

The land is capable of supporting urban development and has similar soil types and hydrology to the surrounding urban areas. The soils have good foundation stability and any inconsistencies (e.g. lateritic cap rock) can be managed via design and normal construction techniques. Urban development is likely to increase water loading and the need for recharge by 1,850kl per hectare. The soils have a moderate to high phosphorus retention ability. Soil permeability is generally low across the site. The silty sand and lateritic soils have a low permeability but adequate drainage potential in areas with gentle slopes. Flat areas are likely to become saturated unless drainage is managed to allow for storage and slow release of water under developed conditions. Steep areas are likely to experience low permeability and low infiltration, particularly during winter and have the potential to exhibit erosion if surface water is not managed appropriately.

A desktop investigation was undertaken to assess the presence of acid sulfate soils (ASS) in the area using ASS risk maps, environmental geology maps and site inspection. While the ASS mapping indicates there is a low risk of ASS, experience in the district indicates that ASS may occur in relation to isolated areas of organic rich soils, indurated horizons and coffee rock.

2.3 Ground Water and Surface Water

The subject land is in the catchment of Oyster Harbour. The northern portion is part of the King River sub-catchment, the southern portion is part of the Yakamia Creek catchment and a small area on the western portion drains into Willyung Creek which flows into the King River. The King River, Yakamia Creek and Willyung Creek all discharge into Oyster Harbour.

The main surface water feature is a shallow valley on Lot 5498 that has been excavated into a series of pools and channels which accepts water from the light industrial area on Chester Pass Road and areas to the west and runs to the north through Lot 5498. Other water gaining areas occur as shallow valleys that do not form water courses per se but channel shallow groundwater during winter months.

There are no wetlands within the LSP area.

2.3.1 Flooding and Inundation

While the LSP area is generally well drained, the shallow valley running through Lot 5498 does flood in response to storm events. Where the drainage line crosses Terry Road, the road was occasionally flooded due to the inadequate size of the culvert. This has recently been replaced.

2.3.2 Confined Aquifers

There is little information in relation to groundwater beneath the LSP area as the thin sands and laterite in the district were not considered to be prospective for groundwater supplies. A ground water table is likely to be experienced at approximately 40m AHD.

An investigation by Aurora Environmental in October and November 2015 involving the installation of five piezometers to between 1 and 3m resulted in groundwater being intersected in only one test hole in the valley floor of Lot 5498 at 1.1 BGL (approximately 35m AHD). Refer Appendix A.

2.4 Bushfire Hazard and Risk Management

While the majority of the LSP area has been cleared, pockets of remnant vegetation which are to be retained and vegetated reserves which border the site require the preparation of a bush fire plan. The bush fire plan has been prepared by FirePlan WA and is contained in Appendix B.

Bushfire Assessment Level Mapping has been prepared based on the vegetation classification and nominates the building setbacks required based on Bushfire Attack Levels which vary from BAL 12.5 to BAL 29. Refer Figure 7 overleaf.

Development abutting the 'Forest Class A' located to the western, northern and eastern boundaries of the LSP will require setbacks varying from 42m to 60m with a BAL of 12.5, to 31m to 46m with a BAL of 19 and 21m to 33m with a BAL of 29.

An area of 'Woodland Class B' on Lot 5498 which is proposed to be retained will require a building setback of 29m with a BAL of 12.5 or 20m with a BAL of 19 and 14m with a BAL of 29.

Building setbacks will be finalised at the subdivisional stage of development when detailed survey information will be made available.

2.5 Heritage

2.5.1 Aboriginal Heritage

An online search of the Aboriginal Heritage Inquiry System indicated that the site was not listed as a Registered Aboriginal Site or Survey Area.

2.5.2 European Heritage

An online search of the Heritage Council WA data base using the inHerit portal found no recorded sites of European heritage from the State Register. A review of the City of Albany's Heritage Inventory also found no recorded sites.

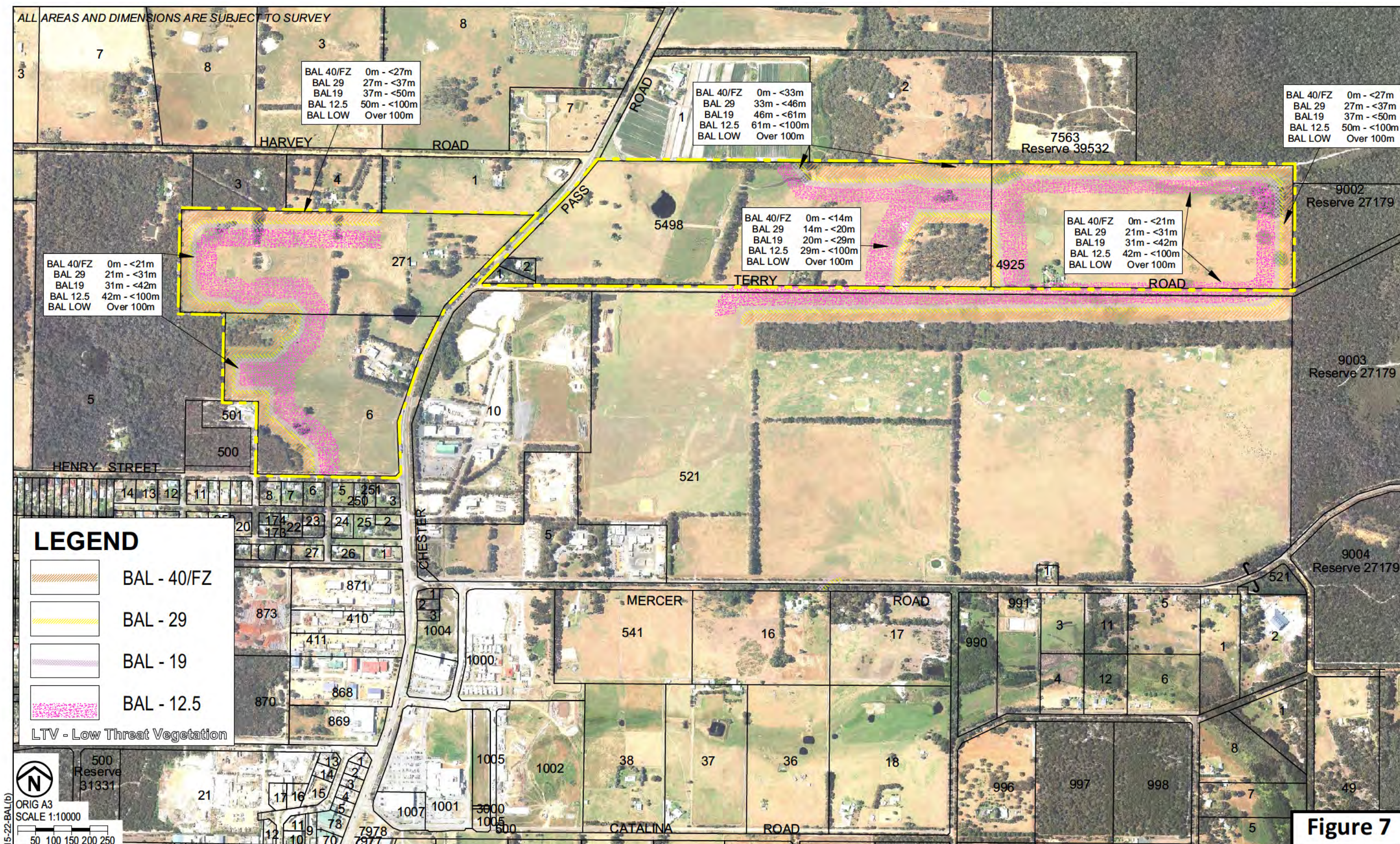


Figure 7

2.6 Foreshores

Only one foreshore area is proposed in association with the drainage line which runs through Lot 5498. This will contain the flood plain and proposed drainage basins. As there is currently no vegetation within the proposed foreshore area, replanting of areas associated with water management will improve outcomes for water quality and the local community.

The other minor drainage lines will not have foreshore areas but will be incorporated in POS/Drainage areas and developed as 'living streams'.

2.7 Land Use Constraints

There are very few land use constraints within the LSP area given the fact that the majority of the land has been cleared and has a generally high capability for development and no significant natural water bodies or wetlands. Three identified land use constraints are:

- Vehicular noise associated with Chester Pass Road. The Acoustic Report (Section 3.4.2) provides recommendations to manage the noise impacts.
- Intensive horticulture (strawberry farming) is located adjacent to a portion of Lot 5498's northern boundary. Larger lots are recommended adjacent to the strawberry farm which will accommodate an appropriate buffer/setback (Section 4.1 in Part One).
- Bush Fire management implications associated with heavily vegetated reserves on the western, northern and eastern boundaries. The Bushfire Assessment (Section 2.4) provides recommendations requiring appropriate building setbacks to address bushfire threat.

3.0 LAND USE AND SUBDIVISION REQUIREMENT

3.1 Land Use

Land use designations shown on the Structure Plan map are:

- Residential - Provide for a high standard of well designed, fully serviced urban residential development, in accordance with the designated densities, that responds to the natural attributes of the locality and interfaces with surrounding development areas. Development and land use permissibilities in accordance with the Residential zone on the LPS
- Public Parkland - provide a range of public reserve areas for the purposes of active and passive recreation, protection of foreshores, wetlands, waterways and vegetation, protection of Aboriginal Heritage values and best-practice urban water management.
- Roads including provision of road widening for Chester Pass Road, and realignment of Terry Road.

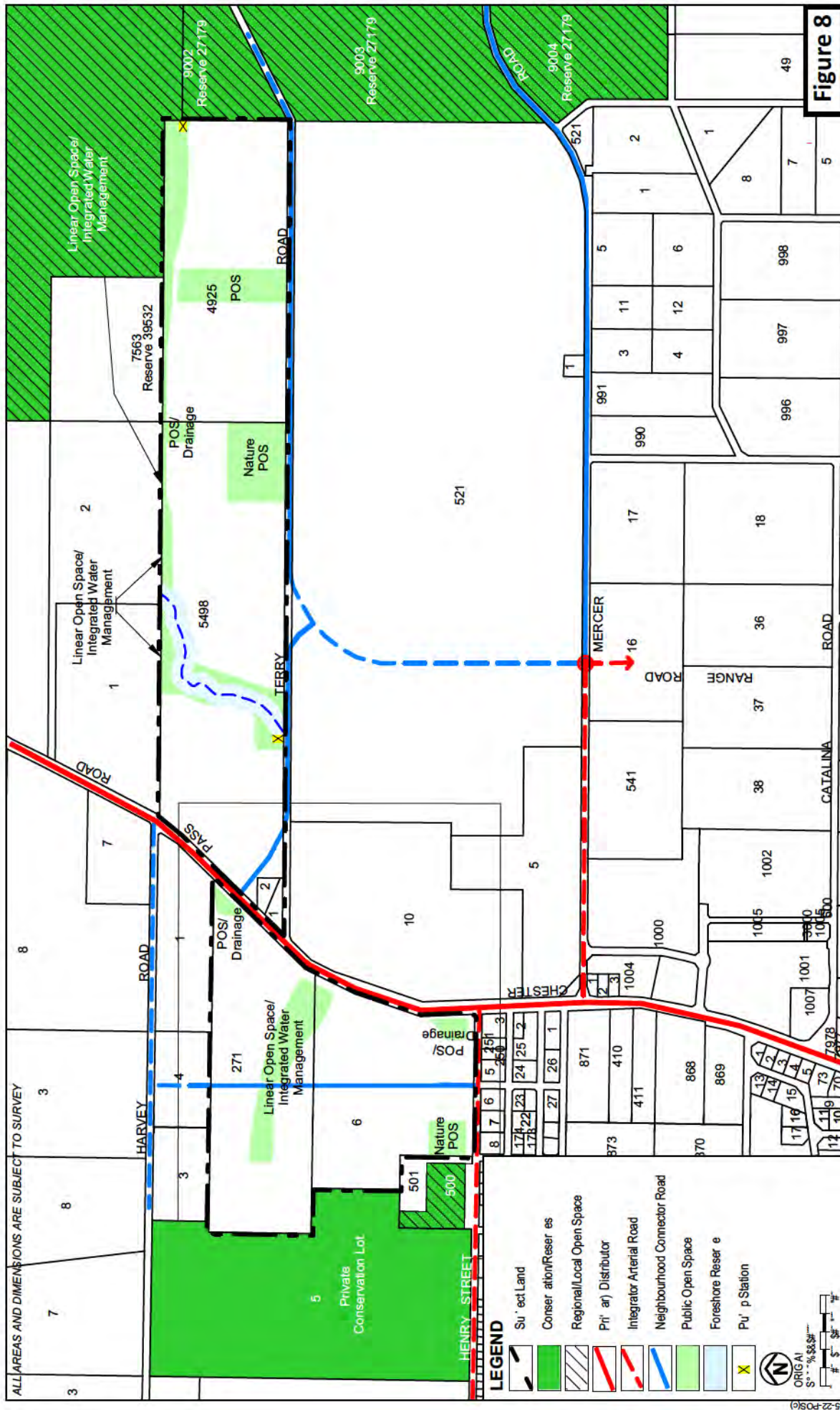
3.2 Public Open Space

The provision of public open space is a critical component of the LSP helping to create a distinctive sense of place and providing a range of natural areas, active sporting facilities and recreational areas within easy access of the residential areas. Integration with water management is also a significant component creating three linear open space areas associated with drainage lines. Refer Figure 8 overleaf.

The public open space consists of the following areas:

3.2.1 Surrounding Reserves

While not included within the LSP area, it is bordered by significant areas of remnant vegetation along its north eastern and eastern boundaries and also along its western boundary. The land to the north east and east consists of regional and local reserves which are zoned 'Parks and Recreation' within the LPS No 1. The land to the west consists of privately owned conservation lots. Together these areas contribute significantly to the character and amenity of the area. Although public access is not available to the privately owned conservation lots, there is the potential to provide access by way of trails to the 'Parks and Recreation' reserves.



OPEN SPACE PLAN
 Lots 4925 & 5498 Terry Road, Lot 521 Mercer Road
 & Lots 1, 2, 6 & 271 Chester Pass Road
 Warrenup/Walmsley, City of Albany

3.2.2 Linear Open Space

Three areas of linear open space are proposed and are associated with the three drainage lines running through the LSP area. All three will enhance connectivity within the area and encourage pedestrian/cycleway access as well as providing opportunities to develop ecological corridors in association with living streams. Adjoining residential lots will overlook the linear parks, providing good surveillance.

The linear park on Lot 271 extends from a low point on Chester Pass Road which will accommodate a drainage basin and extends in a north westerly direction to the northern boundary along a seasonal drainage line. An extension of the area into Lot 6 to the south will enable an oval or area for sporting activity to be accommodated.

On Lot 5498, a seasonal drainage line winds in a north easterly direction through the property at the base of a significant ridge line. A sixty metre wide foreshore reserve is proposed with the opportunity to create a significant linear park which will connect through to properties to the north and also to the east along the northern boundary to the drainage line which runs along the northern boundary of Lot 4925. The elevated land to the east of the foreshore reserve will facilitate surveillance of the foreshore reserve. The foreshore reserve is complemented by POS which is used to incorporate the buffer area to the strawberry farm to the north, mature trees running along the base of the ridge line and a buffer area to the sewerage pump station on Terry Road.

The third linear park runs along the northern boundary of Lot 4925 and has the potential to be developed as a living stream which can be linked to the foreshore reserve on Lot 5498. The corridor will also provide a buffer to the remnant vegetation to the north for bush fire management purposes.

3.2.3 Nature Space

While the majority of the LSP area has been cleared there are two areas of remnant vegetation that will be retained within the POS. Approximately 1 ha of Jarrah/Marri/Sheoak Laterite Forest is located in Lot 6 on Henry Street and 3.5ha of the same vegetation is located on Lot 5498 fronting Terry Road. The condition of both these remnants is described as 'transformed native' which indicates severe disturbance and lack of a native understory.

3.2.4 Recreation Space

Recreation space is well distributed throughout the LSP area and includes a number of multiple use sites which also have a drainage function. Where drainage basins remain dry for most of the year, they can be designed to enable them to be used for recreational purposes.

Within Lot 6, a drainage basin with an area of 2300m² which will remain dry for most of the year, is located within an area of Public Open Space with an area of 6000m². This site is capable of being developed for active recreational use such as playgrounds, half-court basketball courts, picnic/barbecue areas, gazebos and casual seating. Its strategic location on the corner of Henry Street and Chester Pass Road provides an opportunity to create an attractively landscaped entry statement to the western precinct.

The above situation is replicated on Lot 271 with a drainage basin 1700m² in area which is located within a Public Open Space area of 3000m².

As noted in section 3.2.2 above, the main areas of recreation and sporting POS for the western precinct will be integrated with the linear open space area running through Lot 271.

Recreation POS within lot 5498 will be accommodated within the Foreshore reserve and adjoining POS, and within the combined drainage/POS area in the north east corner of the property. A 200m² drainage basin, which will remain dry most of the year, is located within an overall POS area of 6500m². There may also be an opportunity to locate some low key recreational facilities within the 3.5 ha 'nature space' located on Terry Road.

In addition to the linear park on Lot 4955, a large recreation park of 2.88ha runs north south through the property to Terry Road. This can accommodate a wide range of recreation activities and facilities as well as providing a link between other areas of POS.

3.3 Residential

Approximately 93.08ha has been identified as gross residential development land of which about 61ha (66%) is located within the likely Stage One area which includes all the residential land within Lot 6 and 271 and a portion of residential land within Lots 5498.

An urban residential density of around the R25 Density Code is recommended for the majority of residential areas with an R30 Density Code adjacent to areas of public open space.

The R25 Density Code has a minimum lot size of 300m² and an average of 350m². Consequently, a range of lot sizes can be provided ranging generally from 300m² to 400 m².

The R30 Density Code provides for a minimum lot size of 260m² and an average of 300m².

It is anticipated that larger lot sizes will be required adjacent to the western and part of the northern boundaries of Lot 6 and Lot 271, where they abut dense forest.

Lot 4925 to the east also abuts forested reserves on its northern and eastern boundary which will probably require larger lots to accommodate appropriate setbacks.

Lot 5498 abuts a strawberry farm located to its northern boundary and requires a 40 metre vegetated buffer to residential development. Lot sizes ranging from 1200m² to 2000m² will allow for a depth of 60m and can be resubdivided should the strawberry farm cease to exist.

Based on the Structure Plan, it is estimated approximately 1,164 lots will be created, which represents 12.6 dwellings per hectare of gross urban land. Based on 2.8 persons per dwelling, approximately 3,259 people could be accommodated in the structure plan area. Final yields will be determined at the subdivision design stage of development and over the anticipated life of the project there is an opportunity to achieve an increased overall density, subject to market demand.

3.4 Movement Networks

3.4.1 Transport Assessment

A transport assessment has been undertaken based on the Indicative Masterplan which has been prepared for the Walmsley and Warrenup localities. Refer Appendix C.

The purpose of the transport assessment was to assess both the internal transport links within the LSP area as well as its integration with the external transport network in order to determine the impact of traffic generated by the proposed land use within the master plan.

The report follows the guidelines provided by the WAPC's Transport Assessment Guidelines for Developments: Volume 2 - Structure Plans (2006) and comments on the following key matters:

- Existing site and transport situation;
- Proposed land use and associated internal and external road networks;
- Associated traffic generation and distribution;
- Impact on the internal and external transport networks and potential mitigating measures and proposed road types/functions.

Key issues and outcomes from the assessment are as follows:

- The recommendations are based on the understanding that Chester Pass Road will continue to act as part of the Restricted Access Vehicle (RAV) Class 7 Network until the Albany Ring Road is constructed;
- Extension of the dualling of Chester Pass Road past Henry Street to Harvey Road;
- Provision for Chester Pass Road to be widened by 10 metres on either side.
- Retention of the Henry Street/Chester Pass Road and Chester Pass Road/Mercer Road intersections as opposed to linking Henry Street directly to Mercer Road with a four way intersection or roundabout;
- No new points of access permitted onto Chester Pass Road with provision for seagull-style T intersections at Henry Street and Harvey Road to allow right turning movements as well as from the realigned Terry Road intersection. Detailed design of the intersections will be subject to finalisation of the Main Roads WA Albany Transport Model and testing of the proposed structure plan;

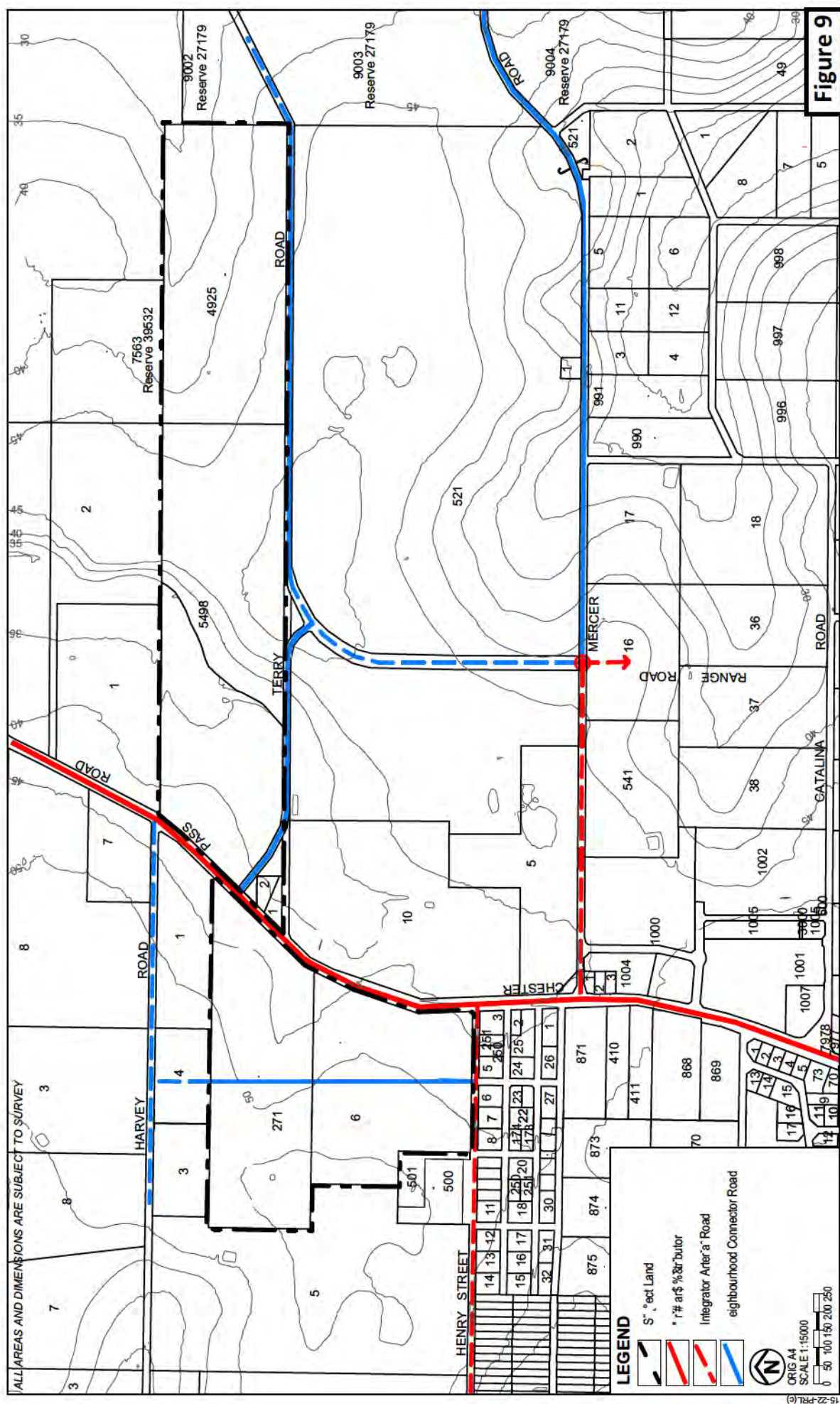
- An extension of Range Road to provide an alternative north-south route to Chester Pass Road;
- Limited access to/from Mercer Road to the east of Range Road;
- Provision of an internal service road on the western side of Chester Pass Road between Henry Street and Harvey Road to accommodate traffic serving the proposed residential development;
- Provision for on and off-road cycle infrastructure within the site and opportunities to improve safety of cyclists on Chester Pass Road;
- Provision of footpaths from residential areas to the school;
- Plan for provision of bus services and bus stops within the development.

The Primary Road Layout is illustrated in Figure 9 overleaf.

3.4.2 Acoustic Report

Outcomes of the acoustic assessment are as follows:

- With no treatment to reduce the impact of noise from Chester Pass Road, residential buildings would need to be located 100 metres from the verge of the road.
- Residential buildings within 50 to 100 metres would require implementation of Package A as defined in Appendix D of the report.
- Between 20 and 50 metres approximately Package B would be required, and Package C or a more onerous solution would be used if noise sensitive development were located closer than 20 metres.
- Location of noise sensitive buildings behind non-sensitive buildings would help to shield noise, however, further assessment of the exact extent of the reduction in noise would have to be studied in detail.



PRIMARY ROAD LAYOUT
 Lots 4925 & 5498 Terry Road, Lot 521 Mercer Road
 & Lots 1, 2, 6 & 271 Chester Pass Road
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3.5 Water Management

A Local Water Management Strategy (LWMS) has been prepared in support of the structure plan as required by State Planning Policy 2.9 Water Resources and Better Urban Water Management (WAPC 2008). Refer Appendix A.

The LWMS confirms that there are no significant constraints or sensitive features which would preclude implementation of water sensitive urban design.

Design elements considered suitable for water management in the WSPA area include:

- Development of treatment drains at the level of lot, road reserve and public open space (POS);
- Treatment of stormwater from 1 year annual recurrence interval (ARI) events through installation of treatments such as soak wells on individual lots (where soil types allow), bio retention swales, stormwater gardens, side entry pits and detention basins in road reserves and POS areas;
- Use of treatments to reduce pipework, prevent erosion and scouring and reduce water velocity (e.g. flush kerbing adjacent to POS);
- Temporary detention in terminal basins to attenuate stormwater flows prior to discharge from the site. Attenuation will need to be sized to discharge post development flows for the 10 year ARI event, at the 5 year ARI discharge rate, as required by the City of Albany;
- Control of the 100 year ARI flood events via the road network and POS areas;
- Management of water entering the WSPA from upstream;
- Minimisation of scheme water use in residences through the installation of water saving devices, including the installation of plumbed in rainwater tanks (minimum 2000L);
- Reduction of water use in POS (especially in relation to irrigation) through use of water wise landscaping; and
- Sourcing water for irrigation in POS, independent of the potable scheme water.

Due to the long time frames which are likely to apply to the implementation of the WSP, the above list should be reviewed and updated as necessary over the development time frame.

3.6 Education Facilities

Liaison with the Department of Education confirms that only one primary school will be required and a location is proposed on Lot 521 to the south of this Structure Plan. Provision for a high school is not required.

3.7 Employment

In order to encourage employment provision in proximity to residential areas, Livable Neighbourhoods also encourages the provision of appropriately located non-residential sites suitable for a wide variety of business development opportunities, including land fronting integrated arterials in or close to high order centres and public transport. Currently mixed use/commercial activity is not identified in any of the City of Albany strategic documents, consequently it will need to be examined when they are reviewed.

There is an opportunity in the longer term to link the existing large Neighbourhood Centre (Centro Albany) with the proposed Local Centre in this locality, by an activity corridor and high frequency public transport along Chester Pass Road.

In general terms the LSP area is conveniently located to developing employment centres such as 'Centro Albany', the Ardess, Orana and Milpara commercial/industrial areas and the Pendeen Industrial area to the north.

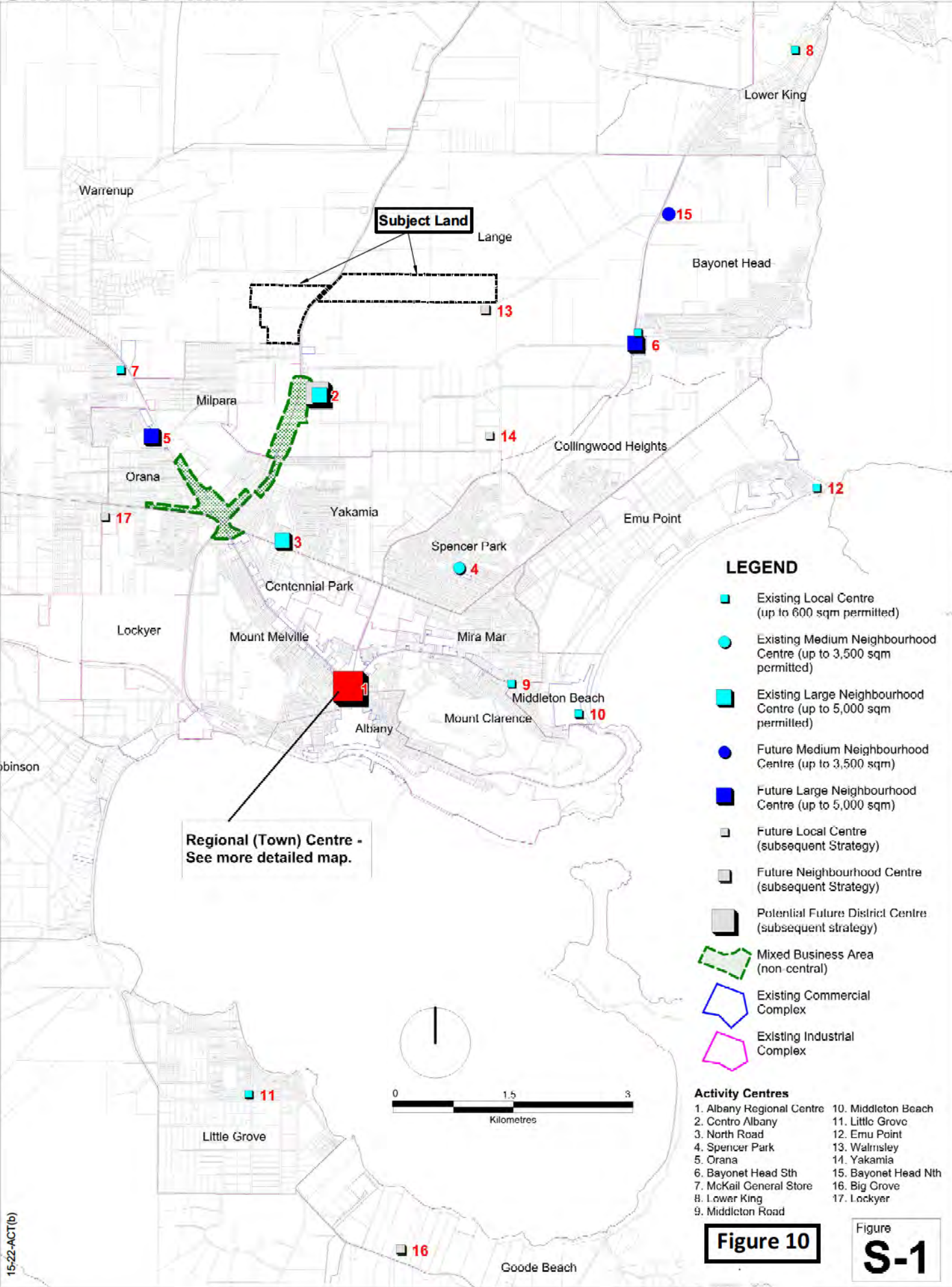
3.8 Infrastructure Coordination, Servicing and Staging

3.8.1 Power

Existing HV power supplies are available in adjacent commercial and industrial areas and can be extended in a staged program to service the LSP area. While no significant offsite infrastructure upgrades are anticipated, this will need to be confirmed closer to the subdivision stage of development. All power will be located underground.

3.8.2 Gas

Albany has an LPG reticulated gas network operated by Atco Gas. While the current system is limited and there is no network in the Warrenup/Walmsley locality, upgrades currently being carried out may extend the system. The options at present are an individual household bottled supply or the establishment of a centralised 'bullet' for reticulated gas to each household.



3.8.3 Waste Water Reticulation

The structure plan area will require new major infrastructure works, including the development of sewer pumping stations and the upgrading of existing infrastructure.

Discussions amongst key agencies and individual landholders can be carried out upon application of a Customer Constructed Works Agreement, when subdivision approvals are available. When major works such as pump stations are required, Water Corporation policy is to deal with a single developer or entity. Where the costs for major works are to be shared between developers within and outside of the structure plan area, Water Corporation policy is still to deal with one developer or entity. How this is organised and funded is up to the developers in the structure plan area.

The WWLSP area is to be serviced by two Type 40 Waste Water Pumping Stations (WWPS) for the two Northern Catchments and one Type 90 WWPS servicing the Southern Catchment. Refer Appendix E. The first of the Northern WWPS is located on Terry Road adjacent to the low point where the creek crosses Terry Road. This pump station will service all of Lots 6 and 271, the western portion of Lot 5498 and the northwestern corner of Lot 521. Refer Figure 12 Waste Water Management Plan overleaf. The second pump station is located in the northeast corner of Lot 4925 Terry Road and will service the balance of Lot 5498, all of Lot 4925 and the northern ridge line of Lot 521. The Southern WWPS is located to the south of the WWLSP area on Mason Road within the Yakamia Structure Plan area. This will service the balance of Lot 521. All three WWPSs eventually discharge into the pump station on the corner of Albany Highway and Le Grande Avenue.

While the permanent pump stations and their pressure mains are ultimately funded by the Water Corporation, pre-funding of those works by developers is likely to be required to enable subdivision to proceed. These costs can be shared between developers both within and outside of the LSP area.

The first stage of the WWSP area will involve the construction of the WWPS on Terry Road with the potential for the developers of Lots 6, 271, 5498 and 521 to share the pre-funding costs. There is also the possibility of the owners of other land, such as a number of lots on the northern side of John Street, also contributing in order to reduce up-front costs.

3.8.4 Water Reticulation

The Water Corporation has advised that the capacity exists within the existing water reticulation network to accommodate the development within the LSP area and that no significant offsite works will be required.

At the subdivision stage of development, further discussion with the Water Corporation on the timing and development rates will be required.

3.8.5 Stormwater Drainage

A stormwater management plan has been prepared by Wood and Grieve Engineers within the context of an overall Local Water Management Strategy prepared by Aurora Environmental. Figure 12 Stormwater Management Strategy overleaf, indicates the location of stormwater basins at each low point within the catchments which will be required to return the flow rates back to predevelopment levels. These basins will be fully integrated with the Public Open Space system and designed and landscaped to become a significant feature of the development.

As the stormwater eventually discharges into both King River and Yakamia Creek, which in turn discharge into Oyster Harbour, particular attention has been paid to treatment of the stormwater prior to discharge into the waterways.

Existing upstream flows from Brooks Garden to the south and the nearby light industrial estate will be accommodated in the proposed system.

3.9 Developer Contributions/Arrangements

Developer contributions are to be made in accordance with the WAPC's State Planning Policy 3.6 and any Local Planning Policy adopted by the City of Albany.



STORMWATER MANAGEMENT STRATEGY

Lots 4925 & 5498 Terry Road,
& Lots 1, 2, 6 & 271 Chester Pass Road
Warrenup/Walmsley, City of Albany

WGE/P/28671-ALB-C

4.0 CONCLUSION

Warrenup/Walmsley Local Structure Plan seeks to coordinate and facilitate the City of Albany's northern development front as identified in the Albany Local Planning Strategy. Its relative proximity to the CBD, retail, commercial and industrial activity provides an opportunity to consolidate development which maximises access to employment and service activities. At the same time the extensive area of protected natural environment which surround the area and views to surrounding features such as Willyung Hill, Porongurup, Stirling Ranges and Mount Many Peaks, provide an opportunity to create a high quality extension of Albany's urban area.